

The Determinants of Tax Morale in India

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Abstract

This is a study of tax morale in India. The concept of tax morale or the citizens' attitude towards tax compliance is vital for the design and implementation of fiscal policy. Tax morale can foster voluntary compliance and hence support the enforcement and deterrence-driven approaches of the tax agencies. However, limited literature regarding the tax morale of Indian citizens is available. The present paper tries to bridge the gap by analyzing the available data for India from the 5 waves of the World Values Survey (1990-2014). Treating tax morale as a dependent variable, this study estimates the factors influencing it. We show that the trust in government, parliament, and civil services positively affects the tax morale of Indian citizens. The correlation between trust in the legal system and tax morale was also positive but not significant. Among the socio-economic variables, education improves the intrinsic motivation of individuals towards tax compliance. Interestingly, the full-time/salaried persons have lower tax morale as compared to the self-employed employees. This finding has important policy implications, given that the full-time/salaried class contributes a significant share of the total taxes paid by the individual taxpayers in India.

Keywords: Tax Morale; Tax Compliance; India; Fiscal Policy; Self-employed; Salaried.

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1 Introduction

Strengthening domestic resource mobilization is a key component of Sustainable Development Goal 17.¹ However, as the State of Tax Justice report highlights, tax evasion remains a daunting challenge for developed and developing countries, including India. (STJ, 2021). The *Arthashastra*, the ancient Indian treatise on statecraft, including taxation, notes that the revenue is the foundation of the state. Given its ambition for inclusive growth for the large population, revenue collection has always been a pressing need for India. This requirement is even more relevant in present times when the interruption in economic activities due to two devastating covid-19 waves and additional state spending to mitigate their impact on the economy have led to significant pressures on public finances.

This paper uses the World Values Survey (WVS) data to study tax morale in the Indian context. It examines the relationship between tax morale and citizens' trust in the government as a whole and its three organs, namely legislature, judiciary, and executive. Tax morale has been broadly defined as the intrinsic motivation or willingness of citizens to pay correct taxes. OECD (2013) informs that the previous research has indicated that there is a significant correlation between tax morale and observed tax compliance levels in both developing and developed countries. However, apart from Torgler (2004), which covers only the first two waves of the WVS, no study regarding tax morale in India is available. Admittedly, the WVS captures attitude of only individuals towards tax compliance. The motivation levels of the firms to comply with the prevailing tax laws are not gauged in these surveys. However, a study of individual taxpayers' willingness to report accurate income, i.e., tax morale, is pertinent in the Indian context, given the contribution of individual taxpayers to the tax collections. For example around 95% of the income taxpayers in India are individuals.² A better understanding of factors affecting tax morale can thus enable the Indian tax administration to complement its enforcement-based approaches for improving compliance levels. As a significant amount of literature examining the role of tax morale is already available, this paper presents only a brief literature review of the concept. Instead, it focuses more on the significance of the variables of interest in the Indian taxation system.

This study makes a twofold contribution to the existing knowledge on tax morale and tax compliance. Ours is the first analysis of tax morale in India using all the available WVS data. Secondly, a review of studies on tax compliance suggests that a relatively lesser amount of information is available regarding tax compliance in developing countries (Slemrod, 2019). Accordingly, this paper examining tax morale in India, a country representing 18% of the

¹UN General Assembly, Transforming our world: the 2030 Agenda for Sustainable Development

²Direct Taxes Data (Financial Year 2017-18) released by the Central Board of Direct Taxes, India

global population, will add to our understanding of tax compliance in India in particular and developing countries in general.

The rest of the paper is organized as follows. Section 2 presents a concise literature review about tax morale and the utility of WVS data for studying the concept. Section 3 discusses the tax compliance scenario in the Indian context. Section 4 dwells upon the data sources and methodology used to derive estimations about the determinants of tax morale. It then discusses the variables used in this study and their relevance in the Indian taxation system. Section 5 talks about the methodology, estimation results, and their significance. Section 6 concludes.

2 The relevance of tax morale and role of World Values Survey data

2.1 *The relevance of tax morale*

The enforcement approach of tax agencies is based on [Yitzhaki \(1974\)](#) version of standard model of tax evasion put forward by [Allingham and Sandmo \(1972\)](#) and [Srinivasan \(1973\)](#), as per which increasing probability of detection of tax evasion and fines can lead to better compliance by taxpayers. However, this model, which is an extension of economic theory of crime of [Becker \(1968\)](#), does not explain the observed mismatch between deterrence measures and compliance levels ([Alm et al., 1992](#)). [Kirchler \(2007\)](#) summarizes various empirical studies to show that higher audit probabilities, tax rates, and fines do not necessarily lead to higher tax compliance. Accordingly, the tax researchers have focused on additional factors affecting tax compliance behavior. One such factor is tax morale, which can be interpreted as the citizens' attitude towards tax compliance. It may be emphasized that tax morale is not an indication of actual tax compliance or evasion by citizens, which can be known, for example, from their tax returns. It also does not measure the extent of opportunities available to people to evade taxes—e.g., the applicability of withholding tax provisions, cash receipts, or effectiveness of tax agency. [Torgler \(2007\)](#) identifies three essential factors to understand tax morale: moral rules and sentiments, relationship between taxpayer and government, and fairness of taxation system and tax burden. [Torgler and Schaltegger \(2005\)](#) highlight the relevance of tax morale from the fiscal policy perspective. They point out that a better awareness about the factors affecting tax morale can help the government raise revenue efficiently. Further, the government can get a broader understanding of the phenomenon of tax compliance where various factors, such as distribution of resources, including quality of publicly provided goods, come into play.

2.2 *The role of World Values Survey data in studying tax morale*

The researchers have been using the WVS data to study tax morale for quite some time. The WVS, a global research project studying changing values and their impact on social and political life, has conducted the following rounds of surveys so far: wave 1 (1981-1984), wave 2 (1990-1994), wave 3 (1995-1998), wave 4 (1999-2004), wave 5 (2005-2009), wave 6 (2010-2014). The seventh round, i.e., wave 7 (2017-2021), is currently in progress. All the seven surveys have asked the following question to the participants, “whether you think cheating on taxes if you have a chance can always be justified, never be justified, or something in between.” The survey records the participants’ responses on a scale of 1 to 10, with 1 being ‘tax evasion is never justified’ denoting the highest tax morale and 10 being ‘tax evasion is always justified,’ indicating the lowest tax morale. However, it is not the only source for studying tax morale. Researchers have also used laboratory experiments and surveys, such as the European Values Survey, Latinobarometer, Afrobarometer, Asiabarometer, or the survey of individual taxpayers conducted by the revenue authorities. (e.g., [Cyan et al., 2016](#), in Pakistan), among others to estimate this concept (see [Horodnic, 2018](#)). [Halla \(2011\)](#) notes that WVS is the most popular data source to study tax morale due to the largest number of observations available for study.

The existing literature cautions that tax compliance decisions are invariably complex, and a single question as used in WVS may not capture the expected behavior of respondents. Furthermore, there are other two aspects to using surveys to predict tax compliant behavior. The respondents may like to inflate their compliance levels in a survey (social bias). For a discussion on possible biases arising out of using WVS data to study tax morale, see [Martinez-Vazquez and Torgler \(2009\)](#). Secondly, the actual compliance levels may significantly differ from survey responses. However, there are examples of how estimations using WVS data validate the findings from other methods of measuring tax compliance, such as laboratory experiments. For example, [Alm and Torgler \(2004\)](#) found that their estimations using WVS data about compliance levels corroborated the results of laboratory economic experiments conducted in the US and Spain. [Cummings et al. \(2009\)](#) observed a similar correlation between tax morale measured using Afrobarometer survey data and tax compliance in South Africa and Botswana. While both referred studies involved an experimental setup, [Halla \(2012\)](#) using underground production data for 64 countries showed that tax morale and actual tax compliance behavior are causally linked. [Kemme et al. \(2020\)](#) have found that tax morale is correlated with the international tax evasion too.

3 A brief review of tax compliance in India

The major tax receipts of the Indian government are divided into two categories, namely direct taxes and indirect taxes. Direct taxes, consisting mainly of corporation taxes and income taxes, constitute around 54% of the total tax receipts.³ The indirect taxes, which make up for the remaining, take forms of Goods and Services Tax, union excise duties, and customs duties. No official estimate about the extent of tax evasion or black money in India is available. The State of Tax Justice 2021 report states that India loses around 4.3% of the annual tax revenues to tax evasion, including USD 220 million by private individuals. (STJ, 2021). The Indian Prime Minister raised concerns about India's overall tax compliance levels, exemplifying that in a country with a population of more than 1.3 billion, the number of income taxpayers stood at 15 million. Further, out of these tax returns, only 0.3 million returns reported an income of more than USD 5 million.⁴

The Indian tax administration uses various enforcement methods—e.g., electronic tax audits and surprise audits at taxpayers' premises along with voluntary compliance-oriented approaches, including taxpayer education to bridge this tax gap. India boasts of a comprehensive direct and indirect tax legislative framework, including special acts for taxing foreign and anonymous assets.⁵ However, as a whole, India's tax system is based on the principle of voluntary compliance, with less than 1% of taxpayers being audited every year.⁶ The Indian Taxpayers' charter emphatically declares that government '*shall treat every taxpayer to be honest unless there is reason to believe otherwise.*'⁷ Greater awareness about the factors driving tax morale can boost voluntary tax compliance and thus supplement the enforcement-driven mechanisms of the tax authorities. Torgler (2003) argues that tax agencies will have to put an official under every bed to achieve total compliance. This inherent limitation of the revenue administrations is particularly relevant in India due to the large geographical area and population.

India has so far participated in six waves of the WVS, i.e., wave 2 (1990-1994), wave 3 (1995-1998), wave 4 (1999-2004), wave 5 (2005-2009), wave 6 (2010-2014), and wave 7 (2017-2021). The WVS uses the multi-stage stratified random sampling method for its surveys, where the responses of survey participants are recorded at their houses. For example, a four-

³Economic Survey of India- 2019-20 released by Ministry of Finance, Govt. of India.

⁴The Indian Prime Minister's speech in Times Now Summit (February 12, 2020). Available at https://www.pmindia.gov.in/en/news_updates/pms-speech-in-times-now-summit/

⁵Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015 and *Benami Transactions (Prohibition) Act, 1988*, as amended in 2016

⁶Ministry of Finance, Twitter post, August 6, 2020, <https://twitter.com/i/events/1291211824323469313>

⁷Taxpayers' Charter published by Income tax department, India (2020), Available at <https://www.incometaxindia.gov.in/Documents/taxpayer-charter.pdf>

staged sampling was used during wave 6 surveys in India. Because of the country’s linguistic diversity, the surveyors used questionnaires in regional languages along with English. The results of wave 7 (2017-2021) are not yet available for India⁸. There has been only one detailed study regarding the tax morale of Indian citizens. Torgler (2004) while analyzing tax morale in Asian countries, has discussed the tax morale in India using data from waves 2 and 3 of WVS. The study’s key finding was that citizens’ trust in the government and the legal system, pro-democratic attitude, and pride are positively correlated with tax morale. Our paper builds upon this previous study by considering the subsequent three waves and an additional variable related to government institutions.

Supriyadi (2017), while analyzing the relationship between trust and tax morale in Indonesia, found out the generalized trust (as measured by the question: “*In general, would you say that most people can be trusted or that you need to be careful in your dealings with people?*”) to be negatively correlated with tax morale in India. The study also suggested that trust in the Indian parliament positively influences tax morale. His analysis covered all WVS waves up to wave 6.

4 Empirical Analysis of tax morale in India

4.1 Descriptive statistics

This paper studies the tax morale of Indian citizens using the time series data set of WVS for the period 1981-2020. (Haerpfer et al., 2020). Before presenting the multivariate analysis, we perform the descriptive analysis of the data (Table 5 in Appendix A). Table 1, presented below, shows the extent of tax morale in India. Row 2 of the table shows the percentage of individuals in India saying that tax evasion is never justified for different waves. Row 3 indicates mean values for all these waves based on a scale of 1 to 10, where 10 is the highest tax morale.

Table 1: Responses with highest tax morale i.e., tax evasion is never justified

Details	Wave 2 (1990-1994)	Wave 3 (1995-1998)	Wave 4 (1999-2004)	Wave 5 (2005-2009)	Wave 6 (2010-2014)
% of respondents	80.2	74.3	75.5	53	76.7
Mean for each wave	9.5	9.38	8.73	8.28	9.34

Source: Country results published by WVS and own calculations using WVS data

⁸This study will be updated when the data for wave 7 becomes available.

As seen in the table, the percentage of respondents for whom the tax evasion is never justified remains stable in the range of 74% to 80% for all waves except wave 5 where it drops to 53%. One possible reason behind this observed deviation is the substantial percentage of ‘I don’t know’ responses (16%) in the wave 5 survey. This response takes values of 2%, 3.5%, 5.9%, and zero for waves 2, 3, 4, and 6, respectively. The distribution of responses for the combined data of all five waves is presented as a bar chart in figure 1 in Appendix B.

[Koumpias et al. \(2021\)](#) find that for all waves from 1 to 6, the percentage of respondents showing the highest tax morale across all countries was about 65%. [Tagat \(2019\)](#) remarks that India ranks on the “conscientious side” of the distribution of countries based on the percentage of citizens exhibiting highest the tax morale. (pg. 4). [Pascual-Ezama et al. \(2015\)](#) found during an experimental study involving university students in 16 countries that there was no statistically significant difference between the honesty levels of Indian citizens and those of other participating countries.

4.2 Multivariate Analysis

4.2.1 Model and variables

Considering the variables of interest our model takes the following structure:

$$TM_i = \beta_0 + \beta_1 TG_i + \beta_2 TP_i + \beta_3 TL_i + \beta_4 TC_i + \beta_5 DSE_i + \epsilon_i$$

TM_i stands for tax morale of Indian citizens. Among the core variables, we analyze trust in the government (TG_i), trust in the Indian parliament (TP_i), trust in the legal system (TL_i), and trust in India’s civil services (TC_i). Our core variables will be useful to study the taxpayers’ relationship with the government, which is one of the three aspects of tax morale as discussed in chapter 2.1. DSE_i comprises various demographic and socio-economic determinants of citizens’ attitudes towards tax compliance, such as sex, age, marital status, education level, economic class, and employment status. A detailed note regarding the derivation of these variables is in Table 4 of Appendix A. We now discuss the relevance of each of these in the Indian taxation ecosystem.

4.2.1.1 Trust in the government

The government is responsible for the welfare, safety, and defense of the citizens. The tax revenues raised from the citizens are also one of the sources for financing these activities. [Luttmer and Singhal \(2014\)](#) identify reciprocity as one of the five mechanisms through which tax morale may affect compliance decisions. They define reciprocity as “situations in which willingness to pay taxes depends on the individual’s relationship with the state other than direct tax–benefit linkages where a tax payment directly causes benefits to the individual

to increase” (pg. 9). The aspect of trust in the government is crucial in India, where the challenges before the government are multi-fold. It is responsible for providing opportunities to every single member of the sizeable population to realize their full potential. The Indian state also faces enormous internal and external security threats. Hence, when the people are confident that their government is capable of and cares for their overall well-being, they are more likely to contribute to the government treasury through taxes. Accordingly, the following hypothesis is formulated.

Hypothesis 1: The more the Indian people trust the national government, the higher is their tax morale.

4.2.1.2 *Trust in parliament*

The Indian system of governance, modeled on the Westminster system, consists of three organs, namely the legislature, judiciary, and executive. The role of the Indian parliament, the apex legislative institution in India, is crucial in the domestic taxation system too. Article 265 of the Indian Constitution clarifies that *“no tax shall be levied or collected except by the authority of law.”* The Indian parliament enacts and amends the tax laws for direct taxes and a majority of indirect taxes. Following the principle of delegated legislation, civil servants in Ministries of Finance and ‘Law & Justice’ draft the tax legislation. Subsequently, during February of every year, the Indian finance minister introduces the finance bill as a part of the union budget in the lower house of the parliament, i.e., *Lok Sabha*. The bill proposes the amendments in India’s direct and indirect tax laws for the next financial year, running from April 1 to March 31. Both houses of the bicameral parliament, namely the lower house and the upper house, i.e., *Rajya Sabha*, must pass such a bill before being sent to the President of India for assent.

Apart from the annual finance bills, the Indian legislature also enacts various new direct and indirect taxation laws, such as The Integrated Goods and Services Tax Act, 2017, for imposing a levy, which is not part of the present tax legislation. For a detailed review of tax law-making procedure in India, see [Singh \(2016\)](#). Hence, if Indian citizens trust the parliament to enact the tax laws, which strike the right balance between the interests of the state and those of the citizens, they are more likely to have a better intrinsic motivation to pay taxes.

Hypothesis 2: The more extensive is the trust of people in India’s parliament, the higher is their tax morale.

4.2.1.3 *Trust in judiciary/legal system*

India's judiciary has a multifaceted role in Indian democracy, and it also forms an integral part of the taxation system in the country. While evaluating the judiciary's role in Indian tax policy, Khatri (2019) points out, "in the design of an efficient tax system, it is important for the judiciary to render rulings that balance taxpayer rights with the goal of securing adequate public revenue" (pg.1). As the case may be, the taxpayers or the direct/indirect tax authorities in India can approach the jurisdictional High Courts in India if they are aggrieved by the decisions of the lower appellate authorities in tax disputes. The quasi-judicial tribunals constituted for the respective direct or indirect tax laws, such as the Income Tax Appellate Tribunal, are the final authority for the fact-finding aspect of any tax dispute. The Indian High Courts hear only those tax dispute cases, which involve a 'substantial question of law.' Although this term is not defined in the Indian tax statutes, the Supreme Court of India, the highest constitutional court in the land, has laid down specific criteria for the same. For example, it must involve a question of general public importance.⁹ Finally, the Supreme Court is the court of last resort for the taxpayers and the tax departments if they wish to appeal against the rulings of the High Courts. The decisions of this court cannot be challenged before any court within the territorial jurisdiction of India.

Hypothesis 3: Greater trust in India's judiciary will result into higher tax morale.

4.2.1.4 *Trust in civil services*

The relevance of the third branch of the government, i.e., bureaucracy for an Indian taxpayer, is twofold, namely the revenue collection and spending. The Central Board of Direct Taxes (CBDT) and the Central Board of Indirect Taxes and Customs (CBIC) are the apex tax policy formulation and implementation bodies for the direct and indirect tax administrations, respectively. The officers of two central civil services¹⁰, namely, the Indian Revenue Service (Income Tax) and the Indian Revenue Service (Customs & Indirect Taxes), head the direct and indirect tax setup across the country. It is well documented that the perception of the tax administration in the eyes of the taxpayers is likely to affect their tax morale. Murphy and Tyler (2008) point out the taxpayer communities that believe that they are treated respectfully, honestly, and impartially tend to be more tax compliant, i.e., procedural justice can improve compliance levels. Hence, the more trust the taxpayers have in the efficiency, fairness, and impartiality of these civil services, their tax morale is likely to be higher.

⁹The judgment of the Supreme Court of India in the case of Sir Chunilal Mehta Sons v. Century Spinning Mfg. Co. Ltd. (1962)

¹⁰The officers of central services, recruited by the union government, serve only under it, and they are not placed at the services of different states in India

On the other hand, the All India civil services¹¹, such as the Indian Administrative Service, and the state civil services constitute the backbone of the administration in the states and union territories. The quality of the governance provided by them can positively or negatively influence tax morale. The collection of taxes is not an end in itself. The fiscal contract theory states that taxation is a social contract in which citizens pay their taxes to the state expecting public goods and services (see, Timmons, 2005; Tengs, 2020). Transparent budgetary allocations that translate into tangible outcomes for the public can trigger significant and permanent changes in citizen’s attitude towards tax compliance. Tandon and Rao (2017) based on a laboratory experiment involving Indian citizens, opine that the quality of public goods and services can positively affect tax compliance decisions.

Hypothesis 4: Greater trust in India’s civil service will lead to higher tax morale.

4.2.1.5 *Other variables: demographic and socio-economic factors*

The paper also studies the tax morale in the context of demographic and socio-economic determinants, namely sex, age, marital status, education, economic class, and employment status of the Indian people. These variables have been extensively studied as a part of research on tax morale. To summarize the findings, we may expect women to be more tax compliant than men. We also anticipate age to have a positive effect on tax morale. Higher education attainment can affect the attitude towards compliance in either direction. Self-employed, part-time, and unemployed individuals are believed to have lower tax morale than salaried/full-time employees (see Daude et al., 2013; Williams & Krasniqi, 2017).

5 Estimation results

5.1 *Methodology used for estimations*

The WVS uses a scale of 1 to 10 for the question, which is the proxy for tax morale, i.e., how justifiable it is for the survey participants to cheat on taxes if they have the opportunity to do so. Analyzing the responses of Indian citizens to the question, we find that most responses indicate the highest tax morale (77%, as seen from figure 1 in Appendix B). Hence, our estimations have been calculated where the dependent variable is equated to 1 for a response stating cheating on taxes is “never justified” and zero, otherwise (responses 2 to 10). This approach was adopted in a large number of previous studies on tax morale using WVS data, including Dörrenberg and Peichl (2017) and OECD (2019). As the existing literature

¹¹Recruited by the union government, the officers of All India Services serve in the allocated states, but they also work with the union government as per the administrative requirement

has found the probit regressions helpful to study the relationship of various independent variables with a binary dependent variable, the same have been used in this study. The results of the probit estimations using data from waves 2 to 6 are presented in Table 2.

Estimations using an ordered probit model have also been done wherein the dependent variable retains its original answer scale of 1 to 10. The responses have been re-coded so that 10 is the highest tax morale (tax evasion is never justified) and 1 is the lowest tax morale (tax evasion is always justified). The ordered probit estimations for waves 2 to 6 are also in Table 2. The approach of using both probit regressions and ordered probit has been followed in [Torgler and Schneider \(2007\)](#).

Waves 3 to 6 of WVS include a question on the economic status wherein the respondents categorize themselves into five categories, namely lower class, working class, lower middle class, upper middle class, and upper class. This question was not included in wave 2.¹² Hence, the data of waves 3 to 6 has been combined to estimate how the economic status affects the dependent variable, and the results are presented in Table 3.

In the probit model, where the equation takes a non-linear form, the sign of the regression coefficient denotes a positive or negative relationship. However, its size does not carry any significance. Hence, the marginal effects have also been included to determine the quantitative effect of an independent variable on tax morale, when all other explanatory variables are held constant at their means. Furthermore, the marginal effects are reported only for the highest tax morale in the ordered probit model estimations. As it happens in the multivariate regression analysis, some unobserved factor may be correlated with the explanatory and dependent variable and is not captured fully in the regression. All observables have been controlled for in our study, and hence we do not expect any selection bias affecting the estimates. Finally, the neutral answers (e.g., “I don’t know” answers) and missing values have been eliminated from the survey responses.

5.2 *Empirical results and discussion*

The estimations from Table 2 show that the trust in the government is positively correlated with tax morale, and the correlation is statistically significant. The one-unit increase in the trust in the government increases the percentage of people stating that tax evasion is never justified by 1.2% to 1.45%, holding all other explanatory variables constant. Hence, hypothesis 1 is accepted. The finding is in conformity with the previous study of [Torgler \(2004\)](#) regarding India. The results also confirm the findings of [Koumpias et al. \(2021\)](#), where they have analyzed the data of all countries covered in WVS waves 1 to 6. Further,

¹²Wave 2 asked the respondents to identify themselves into the four categories: upper middle class, non-manual workers, manual workers (skilled and semi-skilled), and manual workers (unskilled and unemployed.)

Table 2: Determinants of Tax morale in India, Data from Waves 2 to 6

Explanatory variables	Probit regression (Eq. 1)	Probit regression (Eq. 2)	Probit regression (Eq. 3)	Probit regression (Eq. 4)	Ordered Probit (Eq. 5)	Ordered Probit (Eq. 6)	Ordered Probit (Eq. 7)	Ordered Probit (Eq. 8)
	Coef.	Marg.	Coef.	Marg.	Coef.	Marg.	Coef.	Marg.
DEMOGRAPHIC FACTORS								
Age 30-49	0.0529	0.0156	0.0403	0.012	0.0411	0.0124	0.0371	0.0109
Age 50-64	0.1263**	0.0362	0.1295**	0.0371	0.1073*	0.0314	0.1204*	0.0343
Age 64+	0.0577	0.0168	0.0483	0.0141	0.0265	0.0079	0.0485	0.014
Male	-0.1573***	-0.0462	-0.1547***	-0.0454	-0.1620***	-0.0483	-0.1588***	-0.0462
(b) Marital Status								
Married	0.0367	0.011	0.0602	0.0181	0.0114	0.0034	0.0811	0.0243
Living Together	-0.0473	-0.0143	-0.0107	-0.0032	-0.4029**	-0.1374	-0.0894	-0.0272
Divorced	-0.0211	-0.0063	-0.0928	-0.0284	0.071	0.0208	-0.1873	-0.059
Separated	-0.345	-0.1148	-0.2891	-0.0946	-0.5951*	-0.2118	-0.3162	-0.1037
Widowed	0.1975*	0.0543	0.2559*	0.0686	0.1286	0.037	0.2943**	0.077
(C) EDUCATION								
No formal education	-0.3477***	-0.1119	-0.3741***	-0.1213	-0.2860***	-0.0922	-0.3359***	-0.1075
Incomplete elementary education	-0.0781	-0.0238	-0.1007	-0.0308	-0.0688	-0.0212	-0.0854	-0.0258
Completed elementary education	-0.1899***	-0.0594	-0.1988***	-0.0624	-0.1679**	-0.053	-0.1674**	-0.0517
Incomplete secondary school: Technical or vocational Type	-0.2446***	-0.0782	-0.2490***	-0.0796	-0.2279***	-0.0733	-0.2737***	-0.0876
Complete secondary school: Technical or vocational type	-0.1587**	-0.0495	-0.1174	-0.0361	-0.1282*	-0.042	-0.1548*	-0.0479

Incomplete secondary: university prep.type	-0.2083 ***	-0.0656	-0.2082 ***	-0.0655	-0.246 ***	-0.0794	-0.1734 **	-0.0537	-0.2183 ***	-0.069	-0.2138 ***	-0.067	-0.2474 ***	-0.08	-0.1810 ***	-0.056
Complete secondary: university prep. type	-0.1452 **	-0.0448	-0.1326 **	-0.0407	-0.1475 **	-0.0461	-0.1173*	-0.0356	-0.1362*	-0.042	-0.1264 **	-0.039	-0.1288 **	-0.04	-0.1106*	-0.034
Some university with- out degree	-0.088	-0.0269	-0.1074	-0.033	-0.2533 **	-0.0826	-0.0147	-0.0043	-0.1557*	-0.049	-0.1776	-0.056	-0.3238 ***	-0.108	-0.081	-0.025

(D) EMPLOYMENT STATUS

Part time employee	-0.1123*	-0.0345	-0.0998	-0.0305	-0.0828	-0.0256	-0.1216*	-0.0372	-0.1525**	-0.047	-0.1425**	-0.044	-0.1172 **	-0.037	-0.1548 **	-0.048
Self employed	0.1296**	0.0372	0.1084*	0.0312	0.0813	0.024	0.1364**	0.0388	0.1402***	0.04	0.1234**	0.036	0.0970*	0.029	0.1511***	0.043
Retired/Pensioned	-0.1067	-0.0328	-0.1407	-0.0438	-0.0394	-0.012	-0.1133	-0.0347	-0.0651	-0.02	-0.1059	-0.033	-0.0082	-0.002	-0.0875	-0.027
Homemaker	-0.012	-0.0036	-0.0285	-0.0085	-0.0336	-0.0102	-0.0651	-0.0194	0.0404	0.012	0.0223	0.007	-0.0168	-0.005	-0.013	-0.004
Student	0.1526**	0.0431	0.1357*	0.0385	0.0807	0.0234	0.1371*	0.0386	0.1187*	0.034	0.0988	0.028	0.1023	0.03	0.1009	0.029
Unemployed	-0.0783	-0.0238	-0.0717	-0.0217	-0.068	-0.021	-0.0795	-0.024	-0.0969	-0.03	-0.099	-0.03	-0.0604	-0.019	-0.1021	-0.031
Other	-0.0042	-0.0013	0.014	0.0041	0.0317	0.0095	-0.0366	-0.0109	0.0651	0.019	0.0854	0.025	0.0817	0.024	0.0429	0.012

(E) TRUST VARIABLES

Confidence in Govern- ment	0.0491***	0.0145							0.03984**	0.012						
Confidence in Parlia- ment			0.0796***	0.0236							0.0680***	0.02				
Confidence in Legal system					0.0254	0.0076							0.02	0.006		
Confidence in Civil services							0.0815***	0.024							0.0699***	0.021
Number of observa- tions (N)	10634		10208		9220		9911		10634		10208		9220		9911	
LR ChiSq. Test Prob.	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000	
McFadden's Pseudo R ²	0.01		0.01		0.01		0.01		0.01		0.01		0.01		0.01	

Notes: The dependent variable i.e., Tax Morale is measured as value of 1 for high tax morale and 0 for all other responses for the probit regressions. It is on scale on 1 to 10 for the ordered probit estimations.

The reference groups are Age 18 to 29, Female, Single, University with degree/Higher education, and Full time employed. Significance levels: (*) $0.05 < p < 0.10$ (**) $0.01 < p < 0.05$ (***) $p < 0.01$.

Complete secondary: university-preparatory type	-0.2448***	-0.0791	-0.2340***	-0.0753	-0.2642***	-0.0876	-0.2199***	-0.0697	-0.2413***	-0.078	-0.2346***	-0.076	-0.2487***	-0.082	-0.2203***	-0.07
Some university without degree	-0.1258	-0.0397	-0.152	-0.0482	-0.2912***	-0.0981	-0.0662	-0.0202	-0.1734*	-0.055	-0.1977**	-0.064	-0.3487***	-0.119	-0.1062	-0.033
(d) EMPLOYMENT STATUS																
Part time employee	-0.1551*	-0.0493	-0.1396*	-0.0441	-0.1144	-0.0367	-0.1448*	-0.0452	-0.1823**	-0.058	-0.1686**	-0.054	-0.1297	-0.042	-0.1658**	-0.052
Self employed	0.1758***	0.0511	0.1499**	0.0439	0.1212*	0.036	0.1775***	0.0508	0.1980***	0.057	0.1741***	0.051	0.1516**	0.045	0.2013***	0.057
Retired/Pensioned	-0.1048	-0.0329	-0.1446	-0.046	-0.022	-0.0067	-0.1053	-0.0326	-0.048	-0.015	-0.0889	-0.028	0.03	0.009	-0.0643	-0.02
Homemaker	-0.0701	-0.0215	-0.0851	-0.0262	-0.0847	-0.0266	-0.1248*	-0.0382	0.0108	0.003	-0.0063	-0.002	-0.032	-0.01	-0.0422	-0.013
Student	0.2161**	0.0611	0.2113**	0.0598	0.122	0.03634	0.2161**	0.0601	0.1880*	0.054	0.1787**	0.051	0.151	0.045	0.1859**	0.052
Unemployed	-0.1415*	-0.0447	-0.1446*	-0.0456	-0.1412	-0.0457	-0.1598*	-0.0501	-0.1280*	-0.04	-0.1401*	-0.044	-0.0933	-0.03	-0.1494*	-0.047
Other	0.0161	0.0049	0.0212	0.0064	0.0605	0.0187	-0.0292	-0.0088	0.1013	0.03	0.1094	0.032	0.1336	0.04	0.06617	0.019
(e) ECONOMIC CLASS																
Upper class	-0.6742***	-0.2412	-0.6915***	-0.2479	-0.6803***	-0.2466	-0.7728***	-0.2781	-0.6141***	-0.218	-0.6393***	-0.228	-0.6320***	-0.228	-0.7091***	-0.253
Upper middle class	-0.2267***	-0.072	-0.0775***	-0.068	-0.1754**	-0.0564	-0.2692***	-0.0852	-0.2082***	-0.066	-0.1949***	-0.062	-0.1423*	-0.046	-0.2451***	-0.077
Lower middle class	-0.0886	-0.027	-0.2148	-0.0236	-0.0131	-0.0041	-0.0899	-0.027	-0.058	-0.018	-0.049	-0.015	0.0506	0.016	-0.0615	-0.019
Working class	-0.0422	-0.0129	-0.0494	-0.0151	-0.0835	-0.02634	-0.0502	-0.0152	0.0152	0.005	0.0001	0	-0.0083	-0.003	0.0093	0.003
(f) TRUST VARIABLES																
Confidence in Government	0.0826***	0.025							0.0681***	0.021						
Confidence in Parliament			0.0826***	0.025							0.0669***	0.02				
Confidence in Legal system					0.0311	0.0096							0.0281	0.009		
Confidence in Civil services							0.0947***	0.0283							0.0774***	0.023
No. of observations (N)	7982		7633		6616		7381		7982		7633		6616		7381	
LR ChiSq. Test Prob.	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000	
McFadden's Pseudo R ²	0.02		0.02		0.02		0.02		0.01		0.01		0.01		0.01	

Notes: The dependent variable i.e., Tax Morale is measured as value of 1 for high tax morale and 0 for all other responses for the probit regressions. It is on scale on 1 to 10 for the ordered probit estimations. The reference groups are Age 18 to 29, Female, Single, University with degree/Higher education, Full time employed, and Lower class. Significance levels: (*) $0.05 < p < 0.10$ (**) $0.01 < p < 0.05$ (***) $p < 0.01$.

there is a statistically significant positive relation between trust in the parliament and the trust in civil services with tax morale. As mentioned in chapter 3, [Supriyadi \(2017\)](#) finds a similar correlation between tax morale and trust in the Indian parliament using the same data used in this study. Hence, hypotheses 2 and 4 are accepted. As explained in chapter 4.2.1, the perception about government, parliament, and civil services was expected to be closely associated with the attitude of the Indian citizens towards tax compliance. As a deviation from the existing literature, though there is a positive correlation between the trust in the legal system and tax morale, the relationship is not statistically significant. A possible explanation behind such finding is that not every respondent covered in the survey would have approached and experienced the judicial system of the country to settle legal disputes, including tax disputes. For example, as stated previously, only a minuscule percentage of taxpayers in India are audited by the tax departments. A much smaller proportion of taxpayers would have tax disputes with the tax department, and an even smaller percentage of these would have approached the judicial setup for their resolution. Further, the government has been taking several conscious steps to reduce the tax litigation in the judicial system, including increased monetary limits for filing appeals in the higher appellate authorities. Such policy initiatives too reduce the interface between the judiciary and the taxpayers. [Leonardo et al. \(2016\)](#) point out that citizens' degree of interaction and involvement with the legal system remains an issue of concern while studying the impact of trust in the legal system on tax morale, as all citizens may not have interacted with the judiciary.

Examining the correlation between the dependent variable and trust in government, parliament, judiciary, and civil services taken together in probit regressions, we find that only trust in civil services and tax morale are positively significantly correlated. The coefficients for trust in government, parliament, and judiciary are not statistically significant. [Koumpias et al. \(2021\)](#) report a similar finding when they estimate how trust in government, parliament, civil services, legal system, and police together affect tax morale. Similarly, no trust variable has statistical significance in the ordered probit model combining these four variables. Both results are not shown in the table. The interaction among our trust variables is the reason behind these results. However, there was no evidence of multicollinearity.

Among the other variables, we observe that Indian women are likely to have a more positive attitude towards tax compliance than Indian men, as evident in the empirical literature. The age group 50 to 64 has higher tax morale than the reference group of 18 to 29 as per the probit regressions. Further, higher levels of education are likely to result in improved tax morale. An educated person is expected to be more aware of the vital role of taxes in nation-building and the welfare of society. Such a person may also have sound knowledge of

the provisions of the tax statutes and the penal consequences for non-compliance.

Regarding the employment status, both the probit and the ordered probit estimations suggest that part-time employees have lower tax morale than full-time employed persons (reference group). This result confirms previous findings in India and other countries. However, contrary to the previous studies, the self-employed persons in India have better tax morale than the reference group. We propose a possible explanation for this finding. Withholding tax on the salary payments to the full-time employees in India is deducted by their employers and credited directly to the government account. The tax statute provides penal provisions if the employers fail to do so with the prescribed time limits. Thus, the chances of tax evasion by salaried persons are low. In contrast, the self-employed can under-report their income comparatively easily by suppressing business/professional receipts or inflating related expenses, or both. It is acknowledged that many self-employed individuals in India are still out of the tax net or do not pay correct taxes. For example, only 2200 professionals in India declared their annual income as more than USD 0.13 million.^[13] Hence, the salary earning class may feel short-changed, that the distribution of the tax burden is unfair. As discussed in chapter 2.1, fairness of the tax burden is the second component of tax morale identified by Torgler. Accordingly, this class may justify evading taxes if such an opportunity is available.

Our finding of lower tax morale of the full-time employees than the self-employed class is significant for the Indian tax administration as it would not want any class of taxpayers to feel demotivated towards paying correct taxes. The compliance levels in any country cannot improve without the active participation of all categories of taxpayers in the taxation system. Further, out of the total income declared by the individual taxpayers in India, the salaried employees contribute about 67%.^[14] The undermined tax morale may make them explore the tax evasion methods available to them—e.g., the claims of wrong deductions. Such an undesirable scenario will not only lower the existing tax revenues but also place an additional burden of auditing more salaried taxpayers on the tax authorities.

The estimations in Table 3 (waves 3 to 6) show that the upper and upper middle classes have significant coefficients with negative signs compared to the reference group of the lower class. The marginal effects for the upper class vary between 24.12% to 27.81%. These effects for the upper middle class are in the range of 5.64% to 8.52%. Koumpias et al. (2021) explain that although low-income individuals pay minimal taxes, they may be able to correlate the role of tax revenues to fund public services they may utilize. Further, low-income individuals

¹³The Indian Prime Minister's speech in Times Now Summit (February 12, 2020). Available at https://www.pmindia.gov.in/en/news_updates/pms-speech-in-times-now-summit/

¹⁴Direct Taxes Data (Financial Year 2017-18) released by the Central Board of Direct Taxes, India

are more risk-averse than higher and middle-income groups.

Finally, as the data used for our study was collected over time, regression analysis was conducted by including a year dummy too. Our main results remained robust in these regressions.

6 Concluding remarks

This is the first study that presents recent estimates of the attitude of Indian citizens towards tax compliance. Most of the findings in the study validate the previous studies. The more the citizens trust the government and its two branches, the legislature and the executive, the more they are likely to have higher tax morale. The study also found a positive but statistically non-significant relation between tax morale and citizens' trust in the third branch, i.e., the judiciary. These findings highlight the impact of citizens' perception and experience of interaction with the government and its institutions on compliance decisions. Similarly, the estimates also suggest that increasing literacy levels can lead to more compliance. The lower tax morale of full-time/salaried employees compared to the self-employed persons assumes importance, keeping in mind the sizeable contribution of full-time employees in total income declared by the individual taxpayers in India. The tax agency may continue strengthening its deterrence and voluntary compliance-based measures to ensure equal enforcement across all categories of taxpayers.

The results of this paper are relevant for fiscal policy processes as no government can rely only on enforcement strategy to increase tax compliance. Overall, this study adds to our knowledge of the factors influencing citizens' willingness to fulfill their statutory obligations by paying correct taxes.

Appendix A

Table 4: Derivation of variables

Variable	How it is measured in WVS survey questions
TAX MORALE (Dependent variable)	Please tell me whether you think "Cheating on taxes if you have a chance" can always be justified, never be justified, or something in between. Waves 6, 3 and 2- 1: Never justified.... 10: Always justified Wave 5- 1: Never justified... 4, 6, 8, 10: Always justified Wave 4- 1: Never justified, 2, 3, 5, 7, 9, 10: Always justified
Core Explanatory Variables	
Trust in government	Could you tell me how much confidence you have in government: is it a great deal of confidence, quite a lot of confidence, not very much confidence, or none at all? 1: a great deal of confidence 4: None at all
Trust in parliament	Could you tell me how much confidence you have in parliament: is it a great deal of confidence, quite a lot of confidence, not very much confidence, or none at all? 1: a great deal of confidence 4: No confidence at all
Trust in legal system	Could you tell me how much confidence you have in legal system: is it a great deal of confidence, quite a lot of confidence, not very much confidence, or none at all? 1: a great deal of confidence 4: No confidence at all (Not available in Wave 4)
Trust in civil services	Could you tell me how much confidence you have in civil service: is it a great deal of confidence, quite a lot of confidence, not very much confidence, or none at all? 1: a great deal of confidence 4: None at all
Other Explanatory Variables	
Sex	Male/Female
Age	The values for age have been converted into four age groups: 18-29, 30-49, 50-64 and 64+
Marital status	State your marital status. 1. Married 2. Living together as married 3. Divorced 4. Separated 5. Widowed 6. Single/Never married

Economic Class

People sometimes describe themselves as belonging to the working class, the middle class, or the upper or lower class. Would you describe yourself as belonging to the

1. Upper class
2. Upper middle class
3. Lower middle class
4. Working class
5. Lower class

Employment status

Are you employed now or not? If yes, about how many hours a week? (If more than one job: only for the main job)

1. Full time employee (30 hours a week or more)
2. Part time employee (Less than 30 hours a week)
3. Self employed
4. Retired/Pensioned
5. Housewife not otherwise employed
6. Student
7. Unemployed
8. Other

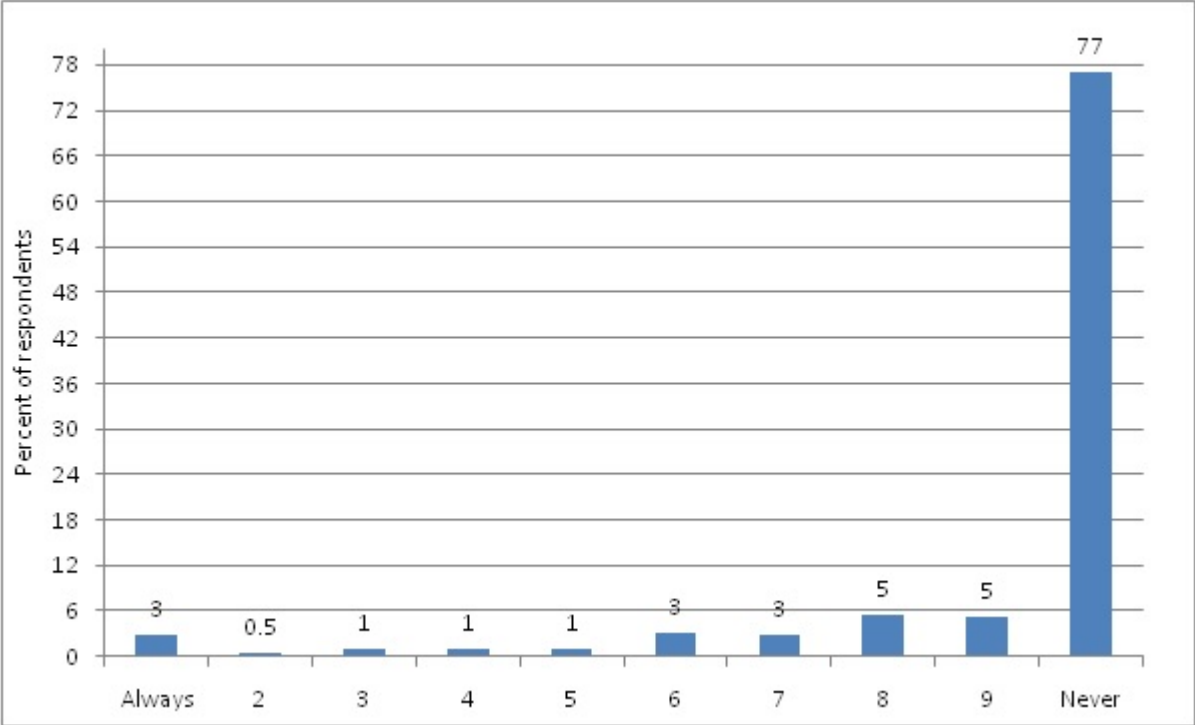
Education

What is the highest educational level that you have attained?

1. No formal education
 2. Incomplete primary school
 3. Complete primary school
 4. Incomplete secondary school: technical or vocational type
 5. Complete secondary school: technical or vocational type
 6. Incomplete secondary: university-preparatory type
 7. Complete secondary: university-preparatory type
 8. Some university-level education, without degree
 9. University-level education, with degree
-

Appendix B

Figure 1: Tax morale responses for India (WVS waves 2 to 6)



How justified it is to cheat on taxes if you have a chance?
Scale: 1 to 10, 10: cheating is never justified, 1: cheating is always justified

Table 5: Descriptive Statistics

Total observations (N)	11691	% of N	Total observations (N)	11691	% of N
Sex			Education		
Male	6561	56	No formal education	2087	18
Female	5130	44	Incomplete primary school	1250	11
Age group			Complete primary school	1288	11
16-29	3376	29	Incomplete secondary school: technical/vocational type	798	7
30-49	5673	49	Complete secondary school: technical/vocational type	781	6
50-64	1885	16	Incomplete-secondary: university-preparatory type	1168	10
64+	757	6	Complete-secondary: university-preparatory type	1585	14
Marital Status			Some university-level educa- tion, without degree	562	4
Married	9249	79	University-level-education, with degree	2172	19
Living together as mar- ried	238	2	Trust in Government		
Divorced	41	< 1	Total observations (N)	10634	% of N
Separated	41	< 1	1: a great deal of confidence	1865	18
Widowed	366	3	2	3650	34
Single/Never married	1756	15	3	3510	33
Employment Status			4: None at all	1609	15
Full time employee (30 hours a week or more)	2657	23	Trust in parliament		
Part time employee (Less than 30 hours a week)	868	7	Total observations (N)	10208	% of N
Self employed	2108	18	1: a great deal of confidence	2220	22
Retired/Pensioned	333	3	2	4109	40
Housewife not other- wise employed	2895	25	3	2603	26
Student	1149	10	4: None at all	1276	12
Unemployed	961	8	Trust in legal system		
Other	720	6	Total observations (N)	9220	% of N
Economic class			1: a great deal of confidence	2690	29
Total observations (N)	8952	% of N	2	3562	39
Upper class	386	4	3	2097	23
Upper middle class	1679	19	4: None at all	871	9
Lower middle class	3416	38	Trust in civil services		
Working class	2055	23	Total observations (N)	9911	% of N
Lower class	1416	16	1: a great deal of confidence	2177	22
			2	4064	41
			3	2549	26
			4: None at all	1121	11

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