

Impact of Tax Knowledge, Tax Penalties, and E-Filing on Tax Compliance in India

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Abstract

This study investigated the tax compliance behaviour of corporate taxpayers in India. Based on the existing literature, three determinants were employed to study the tax compliance behaviour : tax knowledge, tax penalties, and electronic filing. To examine the impact of these independent determinants on compliance (dependent variable) by taxpayers, we collected survey data from 247 corporate taxpayers with a net worth less than ₹ 100 crores in Delhi and NCR in India during the period from January – July 2019. Cronbach's alpha test and one - sample Kolmogorov – Smirnov test were used to check the reliability and normality of the data set, and a linear multiple regression model was used to test the hypotheses and check the relationship. The findings confirmed that tax penalties and electronic filing had a statistically significant influence on the corporate taxpayers' tax compliance, while tax knowledge did not show a statistically significant relation with tax compliance. The results could provide insights into progressive tax policy tools and administration strategies to augment taxpayer compliance, which will increase the nation's tax revenues. Further studies can be undertaken to understand the relationship of tax compliance with other determinants.

Keywords : tax compliance, tax knowledge, e-filing, tax evasion, taxpayers

JEL Classification Codes : C83, H20, H25, M40, G38

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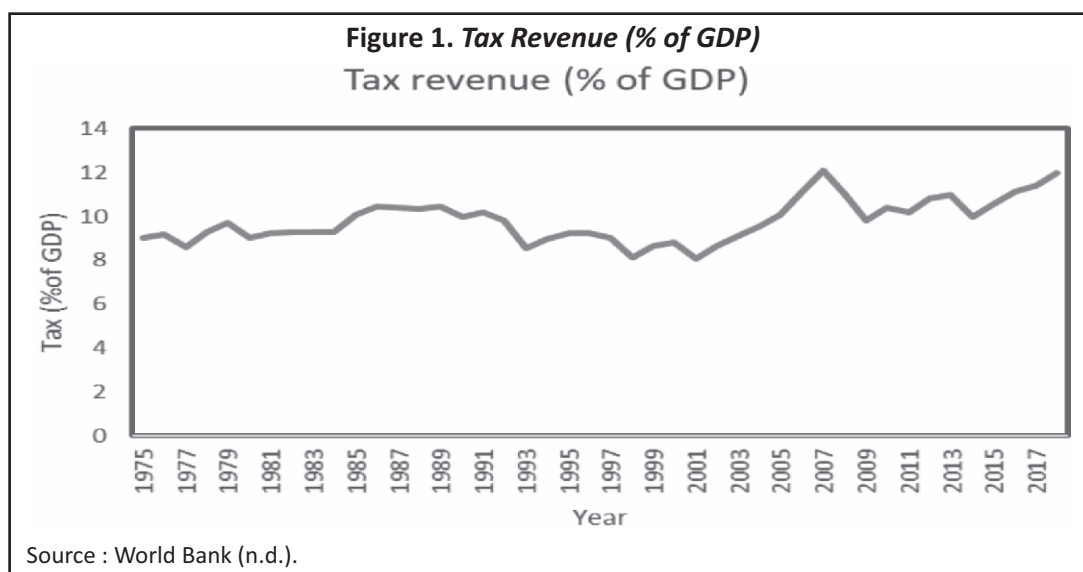
The government needs sustainable and consistent sources of funds to stimulate economic growth and development in a nation. These funds are utilized for public investments and social programs, and they require the government to raise revenues. One of the fundamental sources of revenue for any government is taxes from the nation's citizens (Ajzen, 2005). The challenge faced by governments worldwide is non-compliance of tax (Abd Hamid et al., 2018). Taxpayers try to evade taxes that work against the state's interest as it results in declined tax revenues (Rani & Arora, 2010). So, it is said that the issue of compliance of tax is as old as taxes (Andreoni et al., 1998). As compared to a 40% GDP in taxes collection by advanced economies, developing economies collect merely 15% of GDP in taxes (World Bank, 2018). Encouraging high levels of tax

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compliance is one of the more abrasive issues for governments in such economies. India's tax collection scenario is no different. In spite of so many reforms and measures taken up by the Indian government to ameliorate tax compliance, reaching the desired goal seems very far away. In years between 2002–03 and 2018–19, the total number of individuals who filed tax returns in India grew 62%, but the number of people who paid income tax rose by only 22% (refer to Figure 1). Moreover, for the past many decades, India's tax-GDP ratio has been increasing very marginally, which is reflected in the figures published by the World Bank. The tax - GDP ratio was 9% in the year 1980, 9.94% in 1990, 8.81% in 2000, 10.3% in 2010, and 12% in 2018.

With the increasing pressure of the financial crisis since 2008, the Indian government has been continuously trying to augment the tax revenue. Every year, in the Union Budget, new measures are strategized to escalate tax compliance and boost India's tax revenue, but still, the tax evasion problem persists (Nayyar & Singh, 2018 ; Vaid et al., 2020). Reduction in the tax rate, enhancement of tax knowledge among the taxpayers, increase in tax penalties, ease and advancement in tax filing through e-filing facilities are some of the tax policy measures that different economies have enforced at different times to strengthen tax compliance and tax revenues. The current Indian government has also made tremendous efforts in this direction by improving tax knowledge among taxpayers, e-filing facility, implementing tight tax-penalties on non-compliance, the introduction of the Goods and Services Tax (GST), digitalization, Aadhar card as the identification card for Indian citizens, Benami Act and Income Disclosure Scheme, etc. But the real picture is quite devastating. The citizens of India, who are expected to be the most responsible, are the ones who least follow tax compliance. The figures for the financial year 2018–2019 speak for themselves. Only 2.6 lakh lawyers out of 13 lakh lawyers and only 4.2 lakh doctors out of 8.6 lakh doctors paid taxes. Chartered accountants are no different. Only 1 lakh chartered accountants out of 2.8 lakh chartered accountants paid taxes (Chandrasekhar, 2019). Instead of utilizing the tax saving schemes, taxpayers indulge in tax evasion (Aggarwal, 2017 ; Arora & Rathi, 2018).

Small but constant growth is seen in the direct tax - GDP ratio over the last 3 years. The financial year 2017 – 2018 had the best direct tax - GDP ratio of 12% in the last 10 years. Although India has some efficacious impact on the above - mentioned measures on tax compliance, there is still scope for better tax reforms and strategies. It has been observed that besides various measures introduced by the government from time to time, low tax compliance remains a big challenge for India and many other developing economies. Past studies indicate that there can be various factors influencing a taxpayer to adopt tax compliance. Trust in the

government, enhancing tax knowledge of taxpayers, and legal enforcements came out to be some of the factors (Uadiale et al., 2010). Other factors like marginal tax rate, tax penalties, and the probability of tax audit of taxpayers were also highlighted by some past studies (Allingham & Sandmo, 1972). It becomes extremely important for any government to understand the impact of these major underlying forces on tax compliance. With this background, we are not surprised to see numerous empirical research studies conducted to examine the determinants of tax compliance.

The current study tries to analyze the impact of important determinants that have been introduced by the government and also have been highlighted by previous studies, including tax penalties, tax knowledge of the taxpayers, and tax electronic-filing on tax compliance of corporate taxpayers and understand which of the measures are more productive in improving tax revenues. Knowledge of the influence of such determinants seems crucial for an economy to boost its economic growth and development, so the results of this study will have direct implications on the government, policymakers, and tax authorities. The policymakers may take appropriate measures, policy changes, reforms etc., in light of the determinants that work in favour of tax compliance and magnify tax revenues of India.

This paper extends the existing literature in many ways. Firstly, earlier studies conducted cross-country regressions to determine the impact of factors impacting tax compliance. But the question that strikes our mind is that the impact of various factors may vary from economy to economy, that is, a particular factor may have an impact on taxpayers of one economy and may not impact taxpayers of other economies at all. Moreover, the degree of impact of a particular factor on tax compliance may differ for different economies. According to Kirchler (2007), different countries and individuals have different compliance behaviours because of the vast diversity in the socio, economic, political, and geographical and other factors. Also, some economies are developed, some are developing, while others are underdeveloped. This distinction in the economies may also create a difference in the impact of determinants on tax compliance (Alabede et al., 2011).

Secondly, after going through the literature, another issue that comes to light is that the results of earlier studies are controversial and not conclusive in terms of the relative importance of each factor on tax compliance. This issue makes concerned readers, especially policymakers, researchers, and decision-makers perplexed about utilizing the conclusions of such studies for their work. It, therefore, becomes necessary to conduct a study purely focusing on a developing economy, India, and investigating the impact of some of the key determinants on tax compliance. The current study tries to examine the impact of potential factors (that have been identified from existing literature) on the tax compliance of corporate taxpayers with special reference to India.

Review of Literature

For governments across nations, sluggish tax revenue is one of the battles to win since its inception. The governments have adopted different approaches to conquer tax compliance but could not succeed completely. Numerous studies have been conducted in multiple economies of the world to explore the underlying dominant factors and understand their effect in enhancing compliance by taxpayers. A growing strand of literature to explore and analyze tax compliance related factors are discussed in this section. Tax knowledge is identified as an important factor in literature contributing to tax compliance (Adiasa, 2013 ; Deyganto, 2018 ; Manchilot, 2018 ; Marti et al., 2010 ; Oladipupo & Obazee, 2016 ; Palil 2010 ; Saad, 2014 ; Shiferaw & Tesfaye, 2020). Shiferaw and Tesfaye (2020) carried out a study to examine the determinants of voluntary tax compliance behaviour, and the findings from the regression analysis indicated that compliance was significantly affected by factors which consisted of tax knowledge, the role of the tax authority, the complexity of tax system, absence of tax audits, and government spending. Marti et al. (2010), in their study, stated that tax knowledge was the most influential factor in determining taxpayers' compliance behaviour. This was because non-compliance behaviour among

taxpayers, either intentionally or unintentionally, was because of the absence of tax knowledge. Such evidence was also affirmed among individual taxpayers who unintentionally made mistakes in their tax return forms (Marti et al., 2010).

A study conducted by Adiasa (2013) in Indonesia suggested that knowledge of taxpayers greatly positively impacted tax compliance. In a research study conducted in Malaysia by Saad (2014), the results highlighted that Malaysians considered their tax system complex and lacked enough technical knowledge on tax, which resulted in non-compliance of tax by them. Franzoni (2000) witnessed that tax knowledge was essential as it would increase willingness to comply. Cummings et al. (2009) suggested that it was essential for a person to be aware of taxation laws. Tax knowledge was crucial to a voluntary compliance tax system (Webley et al., 2001). However, there are some contradictory studies too. Manchilot (2018), Engida and Baisa (2014), and Deyganto (2018) concluded that tax knowledge did not significantly relate to the compliance behaviour of taxpayers.

In Kenya, Marti et al. (2010) conducted a study and suggested the same findings. Few more researchers evidenced that tax knowledge was closely related to the taxpayers' ability to understand the taxation laws and regulation, which, in turn, resulted in their ability to tax compliance. In another study conducted in Nigeria by Oladipupo and Obazee (2016), tax knowledge and tax penalties came out to be the most important factors impacting tax compliance.

The literature on tax compliance also highlights another essential determinant, influencing compliance by taxpayers, simplification of tax filing like e-filing (e-filing means the filing of tax returns electronically online by one's computer). According to Manchilot (2018), simplifying tax filing was crucial because it could facilitate efficacy and augmented administration and reduced non-compliance. So, simplicity of the tax system like e-filing etc. increases the compliance level (Kumar & Bagga, 2014). Similarly, the complexity of the tax system makes compliance problematic, requiring taxpayers to devote excessive time and energy to file their returns. Often, it so happens that due to the complexity in filing tax, taxpayers need to hire some paid experts to file tax returns. Many other studies have investigated tax e-filing as one of the factors affecting tax compliance by taxpayers (Gayathri & Jayakumar, 2016 ; Haryani et al., 2015 ; Moorthy et al., 2014). According to Haryani et al. (2015), e-filing (which was introduced by many countries as a step towards digitalization) resulted in both ease of operations and anticipated efficiency, which positively impacted tax compliance.

In a research paper by Mustapha and Obid (2015), compatibility, tangibility, complexity, reliability, ease of use, and affordability were some of the major resultants of e-filing. It was further affirmed in the study that all these factors helped the government achieve tax compliance, so e-filing was considered beneficial for both government and income tax departments (Gayathri & Jayakumar, 2016). Similar findings were confirmed by Brahmabhatt (2012), who also indicated that e-filing was easy and convenient. He highlighted that the government of different nations should open more e-filing awareness camps. This might make the taxpayers' filing work easier and comfortable and motivate them to comply with the tax. In another study by Moorthy et al. (2014), it was witnessed that ease of use, perceived usefulness, perceived security, perceived credibility, perceived service, and information quality were some of the factors that made taxpayers adopt use of electronic way of filing tax returns and pay regular tax. Khan et al. (2015) argued that the factors that had a significant positive impact on taxpayers were technology (including e-filing), respect, and resistance.

Another strand of literature focused on the impact of tax penalties on compliance of tax (Ameyaw & Dzaka, 2016 ; Loo et al., 2012 ; Mohdali et al., 2014 ; Obid, 2004 ; Palil, 2010 ; Park & Hyun, 2003 ; Sapiei & Kasipillai, 2013 ; Yusof et al., 2014). According to a study by Ameyaw and Dzaka (2016), it was suggested that awareness about penalties and offences had a positive relation with compliance. If the taxpayers were conscious of both the offences they were committing while evading taxes and the repercussion of being non-compliant taxpayers like fines and penalties, they might reduce their tendency to evade tax. The findings of Obid (2004) affirmed that the penalty rate had a significant impact on tax compliance. In another study by Park and Hyun (2003), it was argued

that fines were significantly related to tax compliance than audit probabilities. There were contradictory studies too. Yusof et al. (2014) and Kamdar (1997) also argued that the two variables, tax compliance and tax penalties, were not related to each other. Sapiei and Kasipillai (2013) conducted a study on corporate taxpayers and concluded that there was an insignificant relationship between the two variables.

After going through the vast literature on determining the impact of factors affecting tax compliance, it is witnessed that there is a severe lack of consensus as the empirical studies are not only extensive, but they are not conclusive too as to the relative significance of the impact of various variables on compliance by taxpayers. Moreover, past studies have wide differences in perspectives, methodologies, sample selection, and analytical tools.

This study investigates the impact of some of the above - mentioned factors (tax knowledge, tax penalties, and e-filing) on the tax compliance of corporate taxpayers in India and fills the gap. Keeping in mind this gap, the main objective of this study is to examine the impact of tax knowledge, tax penalties, and e-filing on tax compliance in India. To fulfil this objective, the study focuses on the following specific objectives :

☞ To design, develop, and re-standardize the measure to evaluate the impact of tax knowledge, tax penalties, and tax e-filing on tax compliance in India.

☞ To establish the relationship between tax knowledge and tax compliance, tax penalties and tax compliance, and e-filing and tax compliance.

The detailed study of literature resulted in forming the following hypotheses :

☞ **H01** : There is no significant impact of tax knowledge on tax compliance.

☞ **Ha1** : There is a significant impact of tax knowledge on tax compliance.

☞ **H02** : There is no significant impact of e-filing on tax compliance.

☞ **Ha2** : There is a significant impact of e-filing on tax compliance.

☞ **H03** : There is no significant impact of tax penalties on tax compliance.

☞ **Ha3** : There is a significant impact of tax penalties on tax compliance.

Data and Methodology

The current study is an attempt towards investigating the impact of important factors on tax compliance in India. The research design is causal in nature as it tries to study the cause and effect relationship between the independent variables – tax penalties, tax knowledge, and tax e-filing on the dependent variable, tax compliance, using multiple linear regression. A survey method was used to conduct the study. However, it was impossible to conduct a complete survey because the total population of this study is tough to define, and many potential sample elements did not agree to fill the questionnaire due to the sensitivity of tax compliance details. Thus, convenient sampling technique (non-probability sampling technique) was used.

A mix of standardized and self-made questionnaires was administered among 260 corporate taxpayers having a capital of less than ₹ 100 crores of Delhi - NCR region during the period from January – July 2019. The responses were collected from the respondents through both face to face meetings and telephonic interviews. After data cleaning, 247 questionnaires were found to be valid and usable. The questionnaire had five parts. Part A, B, and C

used scales, tax knowledge, e-filing, and tax penalties published by Wright Jr. (2013) and for Part D, tax compliance, a self-made questionnaire was used. Part E incorporated four demographic information, including gender, age, qualification, and business details, which were likely to influence tax compliance behaviour. The individual taxpayer took an average of 10 minutes to fill the questionnaire. Cronbach's alpha reliability test was applied through SPSS to test the reliability of the questionnaire. One-sample Kolmogorov – Smirnov test was applied to check the normality of the variables in the study. A linear multiple regression test was applied to establish the relationship among variables. The model for this research can be expressed as follows :

$$TC = \beta_0 + \beta_1 TK + \beta_2 EF + \beta_3 TP + \varepsilon \quad \dots (1)$$

where,

TC is tax compliance, *TK* is tax knowledge, *EF* is electronic filing, and *TP* is tax penalties.

Analysis and Results

Descriptive Analysis

All the data used in the study have been examined for normality using descriptive and one-sample Kolmogorov – Smirnov test. These descriptive statistics are depicted in Table 1. It is seen that the ratio between mean and median is quite low. The difference between maximum and minimum values is also less.

One-Sample Kolmogorov – Smirnov Test

Non-parametric one sample KS test has been applied to check the normality of the variables, and it is found that the test distribution is normal (refer to Table 2). Hence, we could proceed with the multiple linear regression.

Table 1. Descriptive Analysis

Variables		Observation	Minimum	Maximum	Mean	Median	Standard Deviation
Dependent	Tax Compliance	247	15	33	22	4	3.23
Independent	Tax Knowledge	247	8	17	14	4	2.45
Independent	Tax Penalties	247	7	12	10	3	2.89
Independent	E-filing	247	9	14	12	5	2.17

Table 2. One-Sample Kolmogorov – Smirnov Test

		<i>TC</i>	<i>TK</i>	<i>EF</i>	<i>TP</i>
<i>N</i>		247	247	247	247
Normal Parameters ^{a, b}	Mean	23.48	17.65	11.79	13.26
	Std. Deviation	3.2	3.64	3.66	3.4
Kolmogorov – Smirnov Z		0.834	-1.379	-0.416	-2.1
Asymp. Sig. (2-tailed)		0.179	0.219	0.345	0.197

Note. ^{a, b} are mean and standard deviation.

Table 3. Correlation Table

Variable	Correlation Coefficient	P-value
Tax Knowledge	.741	0.000*
Electronic Filing	.815	0.000*
Tax Penalties	.849	0.000*

Note. Number of observations; * denotes significance level $p < 0.01$.

Table 4. Reliability Test

	Cronbach's Alpha	N of Items
Reliability of Tax Compliance	.703	8
Reliability of Tax Knowledge	.797	4
Reliability of E-Filing	.749	3
Reliability of Tax Penalties	.682	3

Correlation Analysis

Correlation coefficients have been obtained (refer to Table 3) as the first step to test the associations between independent variables and the dependent variable. According to the results reflected in Table 3, all independent variables indicate a significant positive correlation between corporate taxpayers' tax compliance behaviour. Precisely, tax knowledge and electronic filing indicate a strong positive relationship with tax compliance. However, the variable – tax penalties – has a strong positive relationship with corporate taxpayers' tax compliance.

Reliability Test

Reliability test has been applied by using SPSS software on the first four parts of the questionnaire, that is, tax knowledge, tax penalties, e-filing, and tax compliance to check the reliability of the questionnaire. The reliability test values of all the four parts, A, B, C, and D of the questionnaire are given in Table 4.

Cronbach's alpha used in this study is a well-known approach for checking the reliability of the construct (Cronbach & Warrington, 1951). The reliability measures using Cronbach's alpha is above 0.70 (Nunnally, 1978). The reliability value from Table 4 indicates that Cronbach's alpha value is greater than 0.7 or very close to 0.7 for all the variables of the study. It suggests that the reliability of the questionnaire is high, and therefore, the data collected using these measures is suitable for the study.

Results of Hypotheses Testing

The impact of tax knowledge, tax penalties, and e-filing on tax compliance of corporate taxpayers in India has been examined using linear multiple regression test applied using SPSS software. It has been conducted to test the formed hypothesis that tries to prove whether there is a significant impact of independent variables – tax knowledge, tax penalties, and e-filing on the dependent variable, tax compliance in India or not. The model used for regression has a good fit as indicated by the f -value, 13.035, which is significant at a 0% level of significance, indicating high model predictability (refer to Table 5). The regression model indicates that the value of R^2 is 0.594,

Table 5. F-Value

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	619.818	3	206.606	13.035	0
Residual	4397.15	256	17.176		
Total	5016.97	259			

a. Predictors : (Constant), *TP*, *EF*, *TK*.

b. Dependent Variable : *TC*.

Table 6. Model Summary

Model	<i>R</i>	<i>R</i> Square	Adjusted <i>R</i> Square	Std. Error of the Estimate	Durbin–Watson
Dimension 1	.351 ^a	0.594	0.571	4.14444	1.811

a. Predictors : (Constant), *TP*, *EF*, *TK*.

b. Dependent Variable : *TC*.

which represents that tax penalties, tax knowledge, and tax e-filing explain 59.4% of the variance in tax compliance (refer to Table 6).

The findings reflect that H01 indicating that there is no significant impact of tax knowledge on tax compliance is accepted, rejecting its alternate hypothesis ($\beta = -0.064$) (refer to Table 7). It also shows that there is a negative and weak relationship between tax knowledge and tax compliance. It can be interpreted that tax knowledge or no tax knowledge, corporate taxpayers are motivated by other factors for tax compliance. Even if corporate taxpayers do not have any tax knowledge, there are well versed CAs (chartered accountants) available in India who provide the services of proper tax calculation and tax compliance to them. The results also show that e-filing significantly predicts tax compliance in India ($\beta = 0.418$) (refer to Table 7) ; so, Ha2 indicating that there is a significant impact of e-filing on tax compliance is accepted and its null hypothesis is rejected. It indicates that there is a positive and strong relationship between e-filing and tax compliance. The results also conclude that tax penalties significantly predict tax compliance in India ($\beta = 0.645$) (refer to Table 7) ; so, Ha3 indicating that there is a significant impact of tax penalties on tax compliance is accepted and its null hypothesis is rejected. It shows a positive and strong relationship between tax penalties and tax compliance in India (refer to Table 8).

The findings conclude that tax knowledge and tax compliance are not significantly related. These results contradict the study conducted by Adiasa (2013), who suggested that knowledge of tax by taxpayers greatly impacted tax compliance in a positive manner. Palil (2010), Marti et al. (2010), and others mentioned in

Table 7. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
	<i>B</i>	Std. Error	Beta		
(Constant)	20.961	2.115		9.912	0
<i>TK</i>	-0.053	0.095	-0.064	-0.561	0.575
<i>EF</i>	0.309	0.094	0.418	3.302	0
<i>TP</i>	0.534	0.113	0.645	4.732	0

Table 8. Relationship Between Dependent and Independent Variables

Independent Variables	Dependent Variable	Relation
Tax Knowledge	Tax Compliance	Negative and weak
Tax Penalties	Tax Compliance	Positive and strong
Tax E-Filing	Tax Compliance	Positive and strong

the literature have also evidenced different results. This prominently emphasizes that taxpayers' behaviour varies with the change in countries' social, economic, or cultural background. On the other hand, the results are similar to that of Collins (1992), who also suggested that tax knowledge is not influencing taxpayers to follow tax compliance.

The current study also reflects that tax e-filing and tax compliance are strongly positively related. This result is supported by previous studies of Haryani et al. (2015), Mustapha and Obid (2015), Gayathri and Jayakumar (2016), and Brahmabhatt (2012). The third independent variable used in this study, tax penalties, evidences a positive and strong relationship with tax compliance. This finding is also in line with the findings of Allingham and Sandmo (1972), Beck et al. (1991), Alm et al. (1992), Obid (2004), and Becker et al. (1987). However, the results are in contrast with the findings of Wang and Conant (1988), Marrelli and Martina (1988), Sapiei and Kasipillai (2013), Marrelli (1984), Azrina Mohd Yusof et al. (2014), Gordon (1990), and Virmani (1989), who obtained contradictory results, suggesting that tax penalties and tax compliance were negatively related. According to these research studies, the higher the tax authorities' penalties, the lower the tax compliance. They tried proving that if the tax penalties were kept higher, the taxpayers tried to evade higher tax, resulting in lesser tax compliance.

Conclusion

This study investigates the impact of three independent variables, tax knowledge, tax penalties, and tax e-filing, on the dependent variable, tax compliance of Indian tax compliance. The empirical results confirm that, in general, among Indian corporate taxpayers living in Delhi - NCR, electronic filing and tax penalties significantly influenced taxpayers' compliance intention. The results also strengthen the argument that tax knowledge does not impact tax compliance. In practice, the results of this study appear to indicate that simplifying the tax process, better e-filing, and improvising the tax penalty system by the tax authorities could enhance the tax compliance among corporate taxpayers. This could provide insights into progressive policy tools and administrative strategies to augment tax compliance. However, reforms by tax organizations alone may be not adequate for stimulating tax compliance, and other public organizations could be involved as well. Moreover, this study could not capture all the dominant factors influencing actual taxpayer behaviour ; so, future research should investigate the same.

Managerial and Theoretical Implications

The implications of the study are mainly to suggest that government and tax authorities assess the factors leading to tax compliance. In order to augment tax revenues, tax authorities desire better compliance by taxpayers. The study's findings imply emphasizing the dominant factors, especially penalties and electronic filing, to boost tax compliance. The government may strengthen the e-filing system and make it easier and simple. It may also do a detailed study on ways and magnitude of charging fines and penalties to promote tax compliance. Growth in tax compliance is a crucial indicator of better government revenue and, eventually, the economy's health.

Limitations of the Study and Scope for Future Research

Further studies can be undertaken to explore more factors influencing compliance with tax. The value of r^2 in the regression model in the study came out to be 59.4%, which means there is scope of other factors impacting taxpayers to comply for tax. Hence, similar studies can be conducted by incorporating more variables in the model still at the development phase. Moreover, this research focuses on corporate taxpayers only. It can be expanded by selecting new sample taxpayers like professionals (doctors, chartered accountants, etc.) or other institutes like hospitals, insurance companies, etc. or corporates with a higher capital base than the capital base of ₹ 100 crores considered in this study.

Authors' Contribution

Dr. Navita Nathani conceived the idea and extracted research papers with high repute, filtered these based on keywords, and generated concepts and codes relevant to the study design. CA Manav Vigg developed a qualitative design and conducted some interviews with experts to get a better understanding of the concept. Dr. Silky Vigg Kushwah developed the quantitative design to undertake the empirical study, verified the analytical methods, and supervised the study. The questionnaires were administered to the respondents by all three authors. The numerical computations were done by Dr. Silky Vigg Kushwah using SPSS. Dr. Silky Vigg Kushwah, Dr. Navita Nathani, and CA Manav Vigg together wrote the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest in the subject matter, or materials discussed in this manuscript.

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References

- Abd Hamid, N., Taib, H. A. M., Noor, R. M., Yaacob, Z., Shamsuddin, R., Rashid, N....., & Yazid, A. A. (2018). The effect of tax reforms on tax agents' job burnout in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 547 – 560. <http://dx.doi.org/10.6007/IJARBS/v8-i12/5054>
- Adiasa, N. (2013). The effect of understanding tax regulations on taxpayer compliance by moderating risk preferences. *Accounting Analysis Journal*, 2 (3), 345 – 352. <https://doi.org/10.15294/aaj.v2i3.2848>

- Aggarwal, R. (2017). An analysis of black income in India. *Indian Journal of Finance*, 11(5), 19–29. <https://doi.org/10.17010/ijf/2017/v11i5/114246>
- Ajzen, I. (2005). *Attitudes, personality, and behavior*. McGraw-Hill Education.
- Alabede, J. O., Ariffin, Z. Z., & Idris, K. M. (2011). Determinants of tax compliance behaviour : A proposed model for Nigeria. *International Research Journal of Finance and Economics*, 78(1), 121–136.
- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion : A theoretical analysis. *Journal of Public Economics*, 1 (3–4), 323–338. [https://doi.org/10.1016/0047-2727\(72\)90010-2](https://doi.org/10.1016/0047-2727(72)90010-2)
- Alm, J., Jackson, B. R., & McKee, M. (1992). Estimating the determinants of taxpayer compliance with experimental data. *National Tax Journal*, 45(1), 107–114. <https://www.jstor.org/stable/41788949>
- Ameyaw, B., & Dzaka, D. (2016). Determinants of tax evasion : Empirical evidence from Ghana. *Modern Economy*, 7(14), 1653–1664. <http://dx.doi.org/10.4236/me.2016.714145>
- Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818 – 860. <https://www.jstor.org/stable/2565123>
- Arora, A. K., & Rath, P. (2018). A study of awareness and perception regarding tax saving options among salaried people. *Indian Journal of Finance*, 12(7), 57–66. <https://doi.org/10.17010/ijf/2018/v12i7/129971>
- Azrina Mohd Yusof, N., Ming Ling, L., & Bee Wah, Y. (2014). Tax non-compliance among SMCs in Malaysia : Tax audit evidence. *Journal of Applied Accounting Research*, 15(2), 215–234. <https://doi.org/10.1108/JAAR-02-2013-0016>
- Beck, P. J., Davis, J. S., & Jung, W. - O. (1991). Experimental evidence on taxpayer reporting under uncertainty. *Accounting Review*, 66(3), 535–558. <https://www.jstor.org/stable/247808>
- Becker, W., Büchner, H. - J., & Sleskings, S. (1987). The impact of public transfer expenditures on tax evasion : An experimental approach. *Journal of Public Economics*, 34(2), 243–252. [https://doi.org/10.1016/0047-2727\(87\)90022-3](https://doi.org/10.1016/0047-2727(87)90022-3)
- Brahmbhatt, M. (2012). Citizens perception towards e-document adoption : Empirical investigation. *Journal of Management and Research*, 5(1), 1–16.
- Chandrasekhar, R. (2019, January 23). India must become a low-tax-rate, high-tax-compliance nation.. where each citizen pays a moderate rate. *Business Line*. <https://www.thehindubusinessline.com/economy/india-must-become-a-low-tax-rate-high-tax-compliance-nation-where-each-citizen-pays-a-moderate-rate/article26071781.ece>
- Collins, H. (1992). *Changing order : Replication and induction in scientific practice*. University of Chicago Press.
- Cronbach, L. J., & Warrington, W. G. (1951). Time-limit tests : Estimating their reliability and degree of speeding. *Psychometrika*, 16, 167–188. <https://doi.org/10.1007/BF02289113>
- Cummings, R. G., Martinez-Vazquez, J., McKee, M., & Torgler, B. (2009). Tax morale affects tax compliance: Evidence from surveys and an artefactual field experiment. *Journal of Economic Behavior & Organization*, 70(3), 447–457. <https://doi.org/10.1016/j.jebo.2008.02.010>

- Deyganto, K. O. (2018). Factors influencing taxpayers' voluntary compliance attitude with tax system : Evidence from Gedeo Zone of Southern Ethiopia. *Universal Journal of Accounting and Finance*, 6(3), 92–107. <https://doi.org/10.13189/ujaf.2018.060302>
- Engida, T. G., & Baisa, G. A. (2014). Factors influencing taxpayers' compliance with the tax system : An empirical study in Mekelle City, Ethiopia. *eJournal of Tax Research*, 12, 433 – 452.
- Franzoni, L. A. (2000). Amnesties, settlements and optimal tax enforcement. *Economica*, 67, 153 – 176. <https://doi.org/10.1111/1468-0335.00202>
- Gayathri, P., & Jayakumar, K. (2016). A study on tax payer's perception towards e-filing of income tax returns with reference to teachers in Bengaluru East, Karnataka. *International Journal of Trend in Research and Development (IJTRD)*, Special Issue, EIT-16, 32–36.
- Gordon, J. P. (1990). Evading taxes by selling for cash. *Oxford Economic Papers*, 42(1), 244 – 255. <https://doi.org/10.1093/oxfordjournals.oep.a041938>
- Haryani, S., Motwani, B., & Matharu, S. K. (2015). Behavioral intention of taxpayers towards online tax filing in India : An empirical investigation. *Journal of Business & Financial Affairs*, 4(1). <http://dx.doi.org/10.4172/2167-0234.1000135>
- Kamdar, N. (1997). Corporate income tax compliance : A time series analysis. *Atlantic Economic Journal*, 25, 37 – 49. <https://doi.org/10.1007/BF02298475>
- Khan, A. Q., Khwaja, A. I., & Olken, B. A. (2015). Tax farming redux : Experimental evidence on performance pay for tax collectors. *The Quarterly Journal of Economics*, 131(1), 219–271. <https://doi.org/10.1093/qje/qjv042>
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge University Press.
- Kumar, S., & Bagga, T.S. (2014). Buoyant agglomeration of the VAT refund : An application of EFA and CFA. *Indian Journal of Finance*, 18(2), 15 – 25. <https://doi.org/10.17010/ijf/2014/v8i2/71977>
- Loo, E. C., Evans, C., & McKerchar, M. A. (2012). *Challenges in understanding compliance behaviour of taxpayers in Malaysia*. <https://dx.doi.org/10.2139/ssrn.2128378>
- Manchilot, T. (2018). Determinants of tax compliance: A case of Gondar City, Ethiopia. *Research Journal of Finance and Accounting*, 9(13), 38 – 45.
- Marrelli, M. (1984). On indirect tax evasion. *Journal of Public Economics*, 25(1–2), 181–196. [https://doi.org/10.1016/0047-2727\(84\)90050-1](https://doi.org/10.1016/0047-2727(84)90050-1)
- Marrelli, M., & Martina, R. (1988). Tax evasion and strategic behaviour of the firms. *Journal of Public Economics*, 37(1), 55 – 69. [https://doi.org/10.1016/0047-2727\(88\)90004-7](https://doi.org/10.1016/0047-2727(88)90004-7)
- Marti, L. O., Wanjohi, M. S., Magutu, P. O., & Mokoro, J. M. (2010). Taxpayers' attitudes and tax compliance. *African Journal of Business & Management*, 1, 112 – 122.
- Mohdali, R., Isa, K., & Yusoff, S. H. (2014). The impact of threat of punishment on tax compliance and non-compliance attitudes in Malaysia. *Procedia - Social and Behavioral Sciences*, 164, 291–297. <https://doi.org/10.1016/j.sbspro.2014.11.079>

- Moorthy, M. K., Samsuri, A. S., Hussin, S., Othman, M., & Chelliah, M. (2014). E-filing behaviour among academics in Perak State in Malaysia. *Technology and Investment*, 5, 79–94. DOI : 10.4236/ti.2014.52009
- Mustapha, B., & Obid, S. N. (2015). Tax service quality : The mediating effect of perceived ease of use of the online tax system. *Procedia - Social and Behavioral Sciences*, 172, 2 – 9. <https://doi.org/10.1016/j.sbspro.2015.01.328>
- Nayyar, A., & Singh, I. (2018). A comprehensive analysis of Goods and Services Tax (GST) in India. *Indian Journal of Finance*, 12(2), 57–71. <https://doi.org/10.17010/ijf/2018/v12i2/121377>
- Nunnally, J. C. (1978). An overview of psychological measurement. In B.B. Wolman (eds.), *Clinical diagnosis of mental disorders* (pp. 97–146). Springer. https://doi.org/10.1007/978-1-4684-2490-4_4
- Obid, S. N. (2004). The influence of penalties on taxpayers' compliance : A comparison of the theoretical models. *International Journal of Economics, Management and Accounting*, 12(1), 1–31. <https://journals.iium.edu.my/enmjjournal/index.php/enmj/article/view/98>
- Oladipupo, A. O., & Obazee, U. (2016). Tax knowledge, penalties and tax compliance in small and medium scale enterprises in Nigeria. *iBusiness*, 8, 1–9. <http://dx.doi.org/10.4236/ib.2016.81001>
- Palil, M. R. (2010). *Tax knowledge and tax compliance determinants in self assessment system in Malaysia* (Doctoral Dissertation). University of Birmingham. <http://etheses.bham.ac.uk/id/eprint/1040>
- Park, C. - G., & Hyun, J. K. (2003). Examining the determinants of tax compliance by experimental data : A case of Korea. *Journal of Policy Modeling*, 25(8), 673 – 684. [https://doi.org/10.1016/S0161-8938\(03\)00075-9](https://doi.org/10.1016/S0161-8938(03)00075-9)
- Rani, V., & Arora, R. S. (2010). Tax evasion and corruption in the Indian income tax system : Causes and remedies. *Indian Journal of Finance*, 4(10), 30–36. Retrieved from <http://www.indianjournaloffinance.co.in/index.php/IJF/article/view/72563>
- Saad, N. (2014). Tax knowledge, tax complexity and tax compliance : Taxpayers' view. *Procedia - Social and Behavioral Sciences*, 109, 1069–1075. <https://doi.org/10.1016/j.sbspro.2013.12.590>
- Sapiei, N. S., & Kasipillai, J. (2013). Impacts of the self-assessment system for corporate taxpayers. *American Journal of Economics*, 3(2), 75–81.
- Shiferaw, N., & Tesfaye, B. (2020). Determinants of voluntary tax compliance (The case category A and B taxpayers in Dire Dawa Administration). *International Journal of Scientific and Research Publications*, 10(6), 982–996. <http://dx.doi.org/10.29322/IJSRP.10.06.2020.p102119>
- Uadiale, O. M., Fagbemi, T. O., & Ogunleye, J. O. (2010). An empirical study of the relationship between culture and personal income tax evasion in Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 20, 116–126. <http://bura.brunel.ac.uk/handle/2438/18670>
- Vaid, Y. K., Singh, V., & Sethi, M. (2020). Benefits of Goods & Services Tax and its impact on taxpayers' satisfaction. *Indian Journal of Finance*, 14(5–7), 62–75. <https://doi.org/10.17010/ijf/2020/v14i5-7/153325>
- Virmani, A. (1989). Indirect tax evasion and production efficiency. *Journal of Public Economics*, 39(2), 223 – 237. [https://doi.org/10.1016/0047-2727\(89\)90041-8](https://doi.org/10.1016/0047-2727(89)90041-8)

- Wang, L. F., & Conant, J. L. (1988). Corporate tax evasion and output decisions of the uncertain monopolist. *National Tax Journal*, 41(4), 579–581. <https://www.jstor.org/stable/41788762>
- Webley, P., Cole, M., Eidjar, O. - P. (2001). The prediction of self-reported and hypothetical tax-evasion: Evidence from England, France and Norway. *Journal of Economic Psychology*, 22(2), 141 – 155. [https://doi.org/10.1016/S0167-4870\(01\)00026-5](https://doi.org/10.1016/S0167-4870(01)00026-5)
- World Bank. (n.d.). *Taxes and government revenue*. <https://www.worldbank.org/en/topic/taxes-and-government-revenue>
- Wright Jr., D. (2013). Financial alchemy : How tax shelter promoters use financial products to bedevil the IRS (and how the IRS helps them). *Arizona State Law Journal*, 45(2), 611 – 620.
- Yusof, N. A., Ling, L. M., & Wah, Y. B. (2014). Tax non-compliance among SMCs in Malaysia: Tax audit evidence. *Journal of Applied Accounting Research*, 15(2), 215 – 234. <https://doi.org/10.1108/JAAR-02-2013-0016>

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