

Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

Shubham Garg¹, Karam Pal Narwal², Sanjeev Kumar³

^{1,2&3}Guru Jambheshwar University of Science & Technology, Hisar, India.

ABSTRACT: The Indian government has recently transformed its indirect taxation system with the adoption of Goods and Service Tax (GST) in India. However, this taxation reform has a direct impact on the compliance behavior of the taxpayer as explicated by low GST revenue of the country. Since GST is a new taxation law in India, it become pertinent to explore the compliance behavior of GST taxpayers to proffer valuable suggestions and feedback to the concerned authorities for devising appropriate policies and strategies to comprehend and control the non-compliance behavior of the GST taxpayers. Therefore, the present study analyzed the compliance behavior of GST taxpayers by synthesizing the theory of planned behavior by collecting the data from 503 GST taxpayers using snowball random sampling with the application of exploratory and confirmatory factor analysis. The collected data was analyzed using exploratory and confirmatory factor analysis to confirm the theory of planned behavior to comprehend the compliance behavior of the GST taxpayers. The findings of the study assert that the theory of planned behavior explain the 60.1% variance of the total compliance behavior of the GST taxpayers. Moreover, the findings posit that the attitude, subjective norms and perceived behavioral control have a positive impact on the compliance behavior of the GST taxpayers. The proposed instrumental scale may be applied in future research studies to comprehend the compliance behavior of GST taxpayers at national and international level and therefore, this study may have major implications for the government, academicians and policy makers for improving the compliance behavior of the GST taxpayers.

KEYWORDS: Confirmatory Factor Analysis, Exploratory Factor Analysis, GST Taxpayers, India, Theory of Planned Behavior.

INTRODUCTION

The taxation system of a country is an integral part of overall economic development of a country and is responsible to make significant contribution in the achievement of desired social and economic goals. The taxation policy of a country is design not only to achieve fiscal objectives but also to attain socio-economic objectives. This system is use by the governments around the world to spur their economic activities; encourage in- vestment in sustainable projects; regulate the consumers spending on goods and services and to control the horizontal and vertical equity in their economies (Malka- wi & Haloush).

Indubitably, the revenue from taxation enables the government to offer public goods and services that uphold and sustain the economic system (Yew et al. [2]). It helps the government in attaining the sustainable revenue growth for their economies by parking adequate funding re- sources for social programs and infrastructure investment (Ibrahim et al. [3]).

However, the capability of the government to generate revenue is confined by numerous factors. The non-compliance behavior of the taxpayers is one of the major factors attributed to this phenomenon universally (Thaha et al. [4]). However, there is not any universally accepted definition of tax non-compliance but usually it is defined as the failure of taxpayer in fulfilling their taxation liabilities timely and accurately voluntarily or involuntarily (Hayat et al. [5]; Kirchler [6]).

It is a universal issue that raise a concern for both developed and developing economies as the higher the rate of non-compliance in a country, the higher the burden will be on compliant taxpayers to finance the government expenditures or necessitates shrinking vital expenditures on development programs (Thaha et al. [4]). Therefore, the governments are enforcing taxation reforms in their taxation system to make their taxation system more efficient, transparent, and robust to tackle this universal issue (Yadav & Sankar [7]).

In this direction, the government of India has also introduced the Goods and Service Tax

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

(GST) in Indian economy from July, 2017. However, this taxation reform has a direct impact on the compliance behavior of the GST taxpayers as they are required to update their accounting systems and business processes, as well as be prepared to set up the correct accounting and record-keeping systems, train their employees and have the appropriate soft-ware to facilitate successful documentation and recording keeping for GST compliance (Chen & Taib [8] and Ramli et al. [9]).

Garg et al. [10] propound that GST taxation system inherited a complex and convoluted supply chain system for levying and collection of taxes from the taxpayers which increase the probability of tax evasion and tax avoidance by the GST taxpayers. Tax evasion and tax avoidance are the key leading factors contributing to non-compliance behavior of GST taxpayers. Tax evasion is defined as reducing tax liability of oneself by under-reporting their income deliberately. Conversely, tax avoidance involves reducing the tax obligations legally by taking the undue advantage of existing loopholes in a taxation system.

The indirect taxes constitute nearly 13% of the GDP of the country in India, which illustrates a prominent role of indirect taxation system in the Indian economy (Singhal et al. [11]). Thus, the GST taxation system occupy a prominent role in the own tax revenue of the Indian states and central government which make it essential to examine the determinants of compliance behavior of GST taxpayers in India (Garg et al. [12]).

Garg et al. [13] have also posited that the GST implementation has adversely affected the revenue efficiency of the Indian states. Similarly, Mukherjee [14] has also instituted that the GST adoption has condense the taxation capacity of the Indian states.

Dey [15] have also explored that the Indian states may suffer serious consequences in the near future with the abolishment of GST compensation to the Indian states.

Garg et al. [16] have propounded that GST implementation has a negative impact on the Indian economy. Similarly, Basavanagouda & Panduranga [17] have also contended that the technical and complex GST system in India make it difficult for the GST taxpayers to comprehend and comply with the provisions of the GST law in India.

Thus, the non-compliance behavior of GST taxpayers occupies a prominent role in the central problems of Indian economy especially where need for revenue increases, but the tax base show declining trends. The Theory of Planned Behavior (TPB) is one of the prominent theories in varieties of disciplines to comprehend and anticipate the human behavior (Ajzen & Driver [18]). However, there is hardly any study which has applied this theory to understand the complex phenomenon of non-compliance behavior of GST taxpayers in India. Therefore, the present study endeavors to examine the determinants of GST evasion and fraud behavior of GST taxpayers in India with the application of TPB theory.

The purpose of the article is to study the determinants of compliance behavior of GST taxpayers in India with the application of theory of planned behavior.

The study has formulated the following conceptual hypothesis of the study:

H1: The attitude behavior of the GST taxpayers has a positive impact on the compliance behavior of the GST taxpayers. H2: The peer group or subjective norms have a positive impact on the compliance behavior of the GST taxpayers.

H3: The perceive behavior control have a positive impact on the GST taxpayer's compliance behavior.

The rest of the study proceeds as follow: section 2 describes the past literature with the development of conceptual model for the current study. Section 3 describes the research methodology adopted for the current study. Section 4 elaborates the results of the study by comparing it with past literature. Section 5 provides avenues for future research in this domain by putting a light on conclusive section of the study.

LITERATURE REVIEW

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

The non-compliance behavior of tax-payers is a dynamic and multifaceted phenomenon that is affected by numerous factors. This has gained the prime attention of the researchers during the 1970s with the introduction of economic deterrence theory by Allingham & Sandmo [19]. This theory propounds that the compliance decision of a taxpayer is purely based on economic factors i.e. analysis of cost-benefit ratio by the respective taxpayer. The probability of being caught and penalized is assumed as their expected cost and the taxes hoarded by the taxpayers by evasion of taxes are viewed as their respective income.

However, this theory restricted its periphery only to economic factors and tries to examine this complex phenomenon by depending only on economic factors. Therefore, with time a number of academicians take a controversial posture and criticize this economic model for ignoring numerous aspects and factors i.e. behavioral, social and cultural aspect (Alm et al. [20]). The critics emphasize that this model over-simplifies the decision-making process of taxpayers and does not adequately account for various psychological, social, and institutional factors that influence tax compliance behavior of the taxpayers.

Moving on in this direction ahead, several theories were evolved by numerous academicians to comprehend this ambiguous and complex phenomenon with more clarity and precisely. Fishbein & Ajzen [21] propounded the Theory of Reasoned Action (TRA) which claims that the intention of an individual is a function of their attitude towards their behavior and subjective norms.

Ajzen [22] propounded the Theory of Planned Behavior (TPB) theory as an extension of the TRA theory, which contends that subjective norms, attitude behavior, and perceived behavioral control are the primary factors influencing the intentions of the people to involve in a particular behavior, which ultimately has an impact on behavioral performance. With time, the TPB theory has emerged as one of the most widely used socio-psychological theory in a variety of disciplines i.e. IT, psychology, leisure, and even health to understand and predict human behavior. However, it is quite a surprising fact that there is hardly any study in GST domain which has applied TPB theory for understanding the complex phenomenon of compliance behavior of taxpayer.

Theory of Planned Behavior

TPB theory is an extension of TRA theory which is applied a variety of domains to predict the intention of an individual of indulging himself / herself in a particular action. This theory contends that subjective norms, attitude behavior, and perceived behavioral control are the primary factors influencing the intentions of the people to involve in a particular behavior, which ultimately has an impact on behavioral performance.

GST Taxpayer's Attitude and Their Compliance Behavior

Attitude is usually described as a viewpoint or perception of an individual towards a particular or specific behavior in progress. The attitude of taxpayers has a positive impact on their compliance decision. The individuals who have positive attitude towards taxation system will have a belief that tax payment will have numerous benefits not only confined to him / her but also for the society as a whole. They will have a perception that the taxes paid by them will be properly managed by their respective governments and will be reverted to them in the form of infrastructure, education, health care and other public services that are usually organized by the governments to benefit all the people in a particular community (Putra & Osman [23]).

Conversely, an individual with negative attitude will hypothesize that tax payment will have negligible benefits and will try to evade taxes by tax avoidance and tax frauds. A number of researches have propounded a positive impact of attitude on their compliance behavior.

Witte & Woodbury [24] also observed a positive impact of attitude of taxpayer on their compliance behavior. Similarly, Kirchler et al. [25] also propounded a favorable impact of taxpayers on their compliance behavior. A similar finding was also instituted by Alleyne & Harris [26] and Owusu et al. [27]).

Subjective Norms and Compliance Behavior of GST Taxpayers

Subjective norms are usually described as the perspective of individuals near to the taxpayers which may affect their compliance decision. It usually includes the peer groups i.e. relatives, friends, colleagues, role models and employees etc. which have a direct or indirect impact on the compliance behavior of an individual's compliance decision. It is convincible by the available literature that the tax morale of a human being depends on the compliance behavior of others in the society.

Kirchler et al. [25] also instituted that the taxpayers are found to be more inclined to engage in non-compliance practices if they perceive non-compliance practices as universal in their referent group. Palil [28] also affirm the notion that the compliance behavior of a taxpayer has a direct impact from the behavior and attitude of other persons in their social group. Lefebvre et al. [29] contends that when the taxpayers perceive high level of compliance behavior in their referent group, it does guarantee an improved version of compliance behavior explicating that it is not necessitate that a good illustration of compliance should always have any disciplinary effect on their compliance behavior. On the contrary, if the taxpayers perceive the existence of high non-compliance practices in their peer group, it will surely decrease their compliance behavior (Figure 1).

Nurwanah et al. [30] found a favorable impact of subjective norms on the compliance behavior of the taxpayers. Bobek et al. [31] also affirm the notion and posit that subjective norms have a favorable impact on the taxpayer's compliance behavior. Saad [32] also contended a positive and significant impact of subjective norms on the compliance behavior of taxpayers. Maulana & Andrianingsih [33] have also explored a favorable impact of subjective norms on the compliance behavior of the taxpayers.

Wallschutzky [34] also posit that the probability of non-compliance behavior of taxpayers goes on increasing with the number of non-compliant peer group members; they have in their particular referent group.

Perceive Behavioral Control

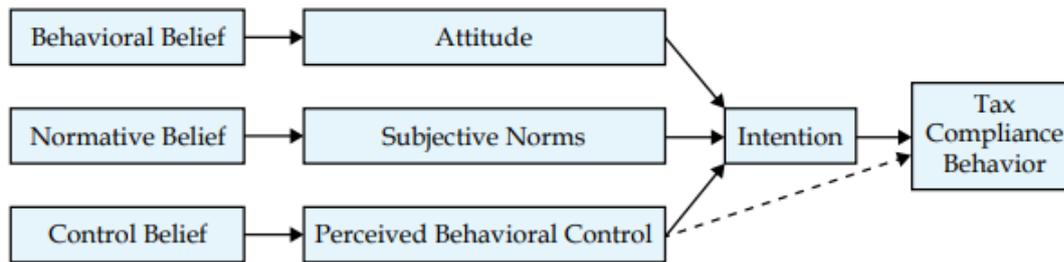
Perceived Behavioral Control (PBC) is a crucial concept in the Theory of Planned Behavior (TPB), proposed by Ajzen [22]. It refers to an individual's perception of the ease or difficulty in executing a particular behavior. PBC encompasses internal and external factors influencing one's ability to accomplish an action.

Ajzen [22] suggests that individuals assess their control beliefs by considering factors such as resources, skills, and obstacles related to the behavior. High perceived control increases the likelihood of intention formation and action implementation. For instance, someone perceiving ease in accessing healthy food options is more likely to adopt a healthy eating behavior. PBC interacts with attitudes and subjective norms within TPB, influencing behavioral intentions. However, it acknowledges that perceived control might not always guarantee behavior due to external constraints or unforeseen circumstances.

Smart [35] and Alleyne & Harris [26] reported a positive impact of PBC on taxpayer's compliance intention. However, Dey [36] instituted an indirect impact of PBC on the taxpayer's compliance behavior with the interaction of subjective norms.

Maulana & Andrianingsih [33] pro-pounded a positive but insignificant impact of PBC on the compliance behavior of the taxpayers. However, it is worth mentioning here that there are very limited numbers of studies that have explored the compliance behavior of taxpayers with the application of TPB theory, therefore, the impact of PBC on the taxpayer's compliance behavior is still ambiguous and unclear.

Figure 1. Theory of Planned Behavior



Thus, the above literature review has well documented that the compliance behavior of GST taxpayer is a worrying phenomenon for the Indian economy. However, there is hardly any study which has focused on understanding this complex phenomenon with the application of TPB theory. The government loses nearly 5 trillion rupees in revenue from indirect taxes each year due to GST non-compliance among GST taxpayers.

Moreover, the available literature has versed well with a number of studies conducted on compliance behavior of taxpayers for corporate and income taxpayer leaving the GST compliance behavior of GST taxpayers virtually unexplored. Therefore, this study tries to explore the determinants of compliance behavior of GST taxpayers with the application of theory of planned behavior in India.

RESEARCH OBJECTIVE AND METHODOLOGY

The main objective of the study is to explore the determinants of compliance behavior of GST taxpayers with the application of TPB theory in India. For this purpose, the study has developed the instrumental scale by critically analyzing the extensive literature in this context. As majority of the study in this domain has confined its periphery to income tax and corporate taxpayers, therefore, it become necessitate validating the developed instrumental scale with the help of experts working in this particular domain.

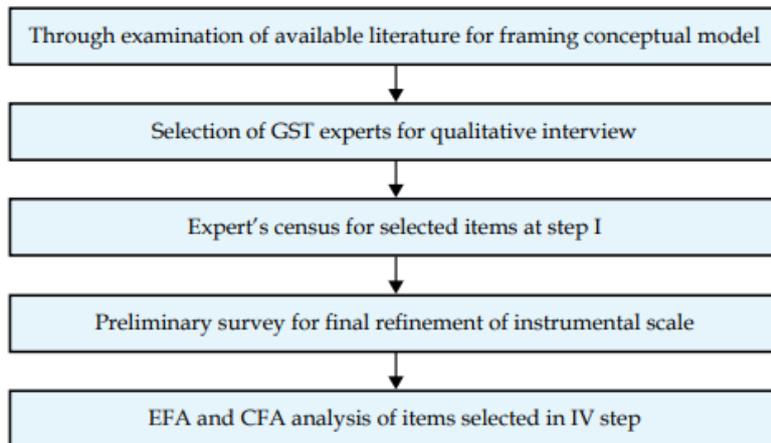
Therefore, the proposed instrumental scale is validated with the help of 77 GST experts and academicians regularly working in this phenomenon by conducting a semi structured interview. The majority of the GST experts agree on the proposed instrumental scale with the deletion of one research item.

Thereafter the finalization of the instrumental scale by the GST experts, the study has collected the data from 152 GST taxpayers for the pilot survey and final refinement of the developed instrumental scale. The final proposed instrumental scale (after affirms the validity and reliability) is used to collect the data from the GST taxpayers.

The final data was collected from 577 GST taxpayers using snowball random sampling with the help of the GST experts. However, the final analysis integrated only 503 questionnaires as 74 questionnaires have to be excluded due to illegible, duplicate and incomplete responses from the respondents.

Figure 2 explicate the research methodology adopted for the development of the instrumental scale for the current study.

Figure 2. Development of Instrumental Scale



The final collected data was analyzed using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to validate the theory of planned behavior for understanding the complex phenomenon of compliance behavior of GST taxpayers. These are the most advance statistical tool to develop and validate the instrumental scale in social science with the application of any theory.

RESULTS

The compliance behavior of GST tax- payers is a multifaceted phenomenon which is affected by numerous factors. However, there is hardly any study which has applied the Theory of Planned Behavior (TPB) to comprehend the compliance behavior of GST taxpayers around the globe. Therefore, it becomes imperative to develop a comprehensive instrumentals scale by applying TPB theory for comprehending the complex and multifaceted phenomenon of compliance behavior of GST taxpayers.

The initial step for the development of comprehensive instrumental scale is to classify the information from multiple variables into fewer components using EFA analysis. Typically, EFA is the preliminary step in the development of comprehensive scale to facilitate the establishment of a theoretical construct's dimensions. For the application of EFA, the study should have a sample of minimum five responses against each research item of the instrumental scale.

Field [37] and Hair et al. [38] pro- pounded a sample in the ratio of 1:10 for each research item of the instrumental scale for ensuring the applicability of the factor analysis on the research items, whereas Comrey & Lee [39] instituted a minimum sample of 300 respondents for the same. The sample size for the current study is 577 for 15 research items (in the ratio of 38:1) for measuring three constructs namely attitude behavior, subjective norms and perceived behavioral control. Similarly, to ensure the sampling adequacy, the study has applied the KMO and Bartlett's test of sphericity as illustrated in Table 1 with the following alternate hypothesis H1: Correlation matrix is significant.

Table 1. Measurement of Sampling Adequacy

| | |
|-------------------------------|----------|
| KMO Measure | 0.843 |
| Bartlett's Test of sphericity | |
| (Approx. Chi Square | 2631.918 |
| DF | 105 |
| P-Value | 0.000* |
| Notes: *sig. at 1% | |

Table 2. Result of Exploratory Factor Analysis

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

| Latent Construct | Item Code | Standardized Factor Loading | Eigen-value | % Variance | % Cumulative | Cronbach Alpha |
|------------------------------|-----------|-----------------------------|-------------|------------|--------------|----------------|
| Subjective Norms | SN08 | 0.804 | 3.010 | 20.063 | 20.063 | 0.833 |
| | SN09 | 0.784 | | | | |
| | SN06 | 0.778 | | | | |
| | SN07 | 0.765 | | | | |
| | SN10 | 0.729 | | | | |
| Attitude Behavior | AB01 | 0.816 | 3.008 | 20.055 | 40.118 | 0.833 |
| | AB02 | 0.787 | | | | |
| | AB04 | 0.777 | | | | |
| | AB03 | 0.764 | | | | |
| | AB05 | 0.722 | | | | |
| Perceived Behavioral Control | PBC14 | 0.829 | 3.003 | 20.019 | 60.137 | 0.830 |
| | PBC12 | 0.778 | | | | |
| | PBC13 | 0.773 | | | | |
| | PBC15 | 0.745 | | | | |
| | PBC11 | 0.732 | | | | |

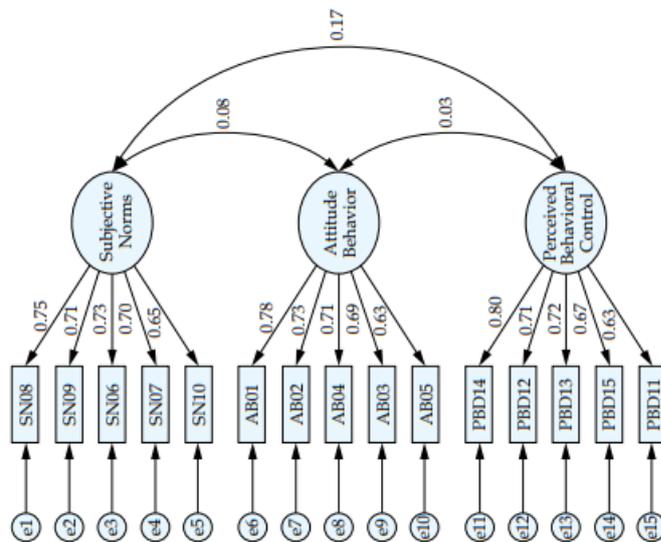
Notes: The factor was extracted using principal components analysis with varimax Kaiser normalization rotation. a Rotation converged in six iterations.

The computed value of KMO measure ($\alpha^2 = 0.843$ with p-value 0.00) explicates that the sample size of the current study is highly suitable for the application of factor analysis technique. Moreover, the statistical value for Bartlett’s test of sphericity ($\alpha^2 = 0.843$, DF 105, with p-value 0.00) illustrates that the correlation matrix is highly significant as indicated by significant p-value.

After affirming the suitability of the research data for factor analysis technique, the study has applied the EFA and CFA statistical tool as presented in Table 2 and Figure 3 respectively.

The result of the factor analysis affirms three factors explaining 60.137% of total research variable variance. The first factor was labeled subjective norms with eigenvalue of 3.010 explaining 20.063% of the research variable variance. Subjective norms refer to the perceived social expectations or pressures that an individual tax- payer perceives from their surrounding environment regarding certain behaviors or actions. These norms are based on an individual’s beliefs about what other people in their referent group think that they should or should not do in a particular situation. They encompass the influence of social factors i.e. family, friends, culture, and society, on an individual’s attitudes and behaviors. Subjective norms play a significant role in shaping an individual’s decisions and actions, as people often consider the opinions and expectations of others when making choices. In the past, a number of studies affirm the notion that the compliance behavior of taxpayers has a direct impact from what other people (i.e. relative, friends, colleagues, employees) perceive about the non-compliance behavior of the taxpayer and whether they approve or disapprove this type of behavior of the taxpayers.

Figure 3. Measurement Model



Wallschutzky [34] have instituted that subjective norms have a direct impact on the compliance behavior of the taxpayers. Kirchler et al. [25] and Palil [28] also explored that the subjective norms have a favorable impact on the compliance behavior of the taxpayers.

Bobek et al. [31] and Lefebvre et al. [29] also affirm this notion and conclude that compliance behavior of the taxpayers is affected by the referent groups to which the taxpayers belong. Saad [32] explicate that the peer group of the taxpayers have a direct impact on their decision of whether to comply or not with the tax norms of the country. Owusu et al. [27] have also instituted that the compliance decision of the taxpayers has a direct impact from the subjective norms of the referent group of the taxpayers.

Similarly, the findings of the factor analysis explicates that the subjective norms of the referent group are a major predictor of the compliance behavior of GST taxpayers. In the TPB framework, the attitude component refers to an individual’s evaluation or perception of a particular behavior. It involves one’s overall assessment of whether the behavior is favorable or unfavorable, positive, or negative.

This component reflects the personal belief about the potential outcomes or consequences of engaging in that particular behavior. Attitude in this theory encompasses an individual’s feelings, emotions, and thoughts toward the behavior, influencing their willingness or motivation to perform or avoid the behavior based on these assessments (Figure 3).

The results of the factor analysis affirm the attitude behavior of the taxpayers as the 2nd most import factor in explaining the compliance behavior of GST taxpayers with a research variance and eigenvalue of 20.055 and 3.008 respectively. The attitude of the taxpayers toward the payment of taxes has a direct impact on their decision whether to comply or not to comply with the rules and regulations of the tax laws of their respective countries.

Witte & Woodbury [24] and Kirchler et al. [25] have also affirmed this notion and conclude that the attitude of the tax- payers has a significant impact on the compliance behavior the taxpayers. Alleyne & Harris [26]; Putra & Osman [23] and Owusu et al. [27] has also posited that the attitude of the taxpayers towards taxation system has important inferences on the intention of the taxpayers to comply with the tax law.

Onu [40] have instituted that the favorable attitude of the taxpayers toward the taxation system does not assure that the particular taxpayer will adhere to the rules and regulation with hundred cent accuracy.

Thus, the results affirm the notion that the attitude of the GST taxpayers to- ward the GST taxation system of the country has a direct impact on their intention whether to comply or not to comply with the GST law of the country. Moreover, the Perceived Behavioral Control (PBC) in the

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

TPB theory relates to an individual perception of easiness or difficulty in performing a certain behavior. It reflects the person’s belief in their capability to successfully execute the behavior, considering both internal and external factors that may facilitate or hinder its accomplishment. This component considers elements like skills, resources, opportunities, and external circumstances that could impact one’s ability to engage in the behavior.

Essentially, perceived behavioral control examines the extent to which an individual feels in control of performing the behavior, influencing their intentions and actual behavioral execution. The theory of reason action was extended by Fishbein & Ajzen [21] by incorporating PBC to explain the non-volitional behavior. However, a number of studies conducted by Bobek [36]; Dey et al. [41]; Hamid [42], Bani-Khaleed et al. [43] and Owusu et al. [27] do not found any significant impact of PBC on compliance decision of the taxpayers.

But Bobek [36] have propounded that the PBC in TPB framework intermingle with subjective norms to decide the compliance decision of the taxpayers. Similarly, Alleyne & Harris [26] also instituted that the PBC has an impact on the compliance behavior of the taxpayers.

Moreover, Figure 3 illustrates the measurement model of the study for developing the instrumental scale for measuring the compliance behavior of the GST taxpayers with the help of the theory of planned behavior. The internal consistency of the model has been evaluated on the basis of Cronbach’s alpha as presented in Table 3. As a standardized rule, the value of Cronbach alpha should be higher than 0.7, whereas the value above 0.8 is considered as good and a value of Cronbach alpha is considered as a symbol of exceptional internal consistency (Garg et al. [44]).

In our analysis, the value of Cronbach alpha ranges from 0.830 to 0.833 as displayed in Table 3 illustrating that the instrumental scale has high level of internal consistency. Moreover, the value of AVE as explicated in table III is greater than 0.5 ensuring the discriminant validity of the measurement model. Similarly, the value of Composite Reliability (CR) for all the three constructs of TPB framework is greater than 0.7 explicating the high reliability of the instrumental scale as presented in table III. The Convergent Validity (CV) of the measurement model stipulates the convergence between the researches items included in the study. CV is usually assessed with the help of the standardized factor loading of the measurement model where the factor loading of above 0.5 is usually indicate that the constructs of the measurement model are highly substantial and demonstrative of their construct.

The value of the factor loading for the measurement model of the study ranges from 0.722 to 0.829 as illustrated in Table 3 ensuring the convergent validity of the measurement model of the study. Similarly, the Discriminant Validity (DV) of the measurement model is generally assessed with the help of the AVE where the value of AVE should be greater than the value of MSV which ensure that each and every construct of the measurement model is independent and distinct from other constructs of the measurement model.

The value of AVE is greater than the value of MSV as explicated in table III ensuring the discriminant validity of the measurement model of the study. More- over, the square root of AVE is greater than the correlation values of the construct (Table 4).

Table 3. Assessment of Discriminant Validity

| Factor Name | Attitude | Subjective Norms | Perceived Behavioral Control | CR | AVE | MSV | MaxR(H) |
|------------------------------|----------|------------------|------------------------------|-------|-------|-------|---------|
| Attitude | 0.708 | – | – | 0.834 | 0.501 | 0.027 | 0.837 |
| Subjective Norms | 0.076 | 0.708 | – | 0.833 | 0.501 | 0.006 | 0.839 |
| Perceived Behavioral Control | 0.166* | 0.025 | 0.709 | 0.834 | 0.502 | 0.027 | 0.843 |

Notes: The values in off diagonal represent the correlation between construct and diagonal value (in bold and italic) exhibits the square root of AVE obtained from observed variables.

*Significant at 1%.

Table 4. Results of goodness of fit indices

| Statistical Measures | Model Fit Indices | Threshold Limit | Model Interpretation |
|----------------------|-------------------|-----------------|----------------------|
| χ^2 | 90.335 | – | – |
| DF | 87 | – | – |
| χ^2/DF | 1.038 | Between 1 to 3 | Excellent |
| CFI | 0.998 | > 0.95 | Excellent |
| GFI | 0.977 | > 0.90 | Excellent |
| SRMR | 0.029 | < 0.08 | Excellent |
| NFI | 0.966 | > 0.90 | Excellent |
| TLI | 0.998 | > 0.90 | Excellent |
| RMSEA | 0.009 | < 0.06 | Excellent |

Moreover, the study has used the universally used goodness of fit indices as presented in Table 4 for checking the fit- ness of the measurement model. The computed statistics for all goodness of fit indices is within the threshold limit depicting that the measurement model is highly fit for measuring the determinants of compliance behavior of GST taxpayers with the application of TPB theory.

DISCUSSION

The above discussion has explicated that GST compliance behavior is a worrying phenomenon for all countries across the globe. The governments around the worldwide are adopting different kind of taxation system to put a check on the tax evasion and tax fraud practices adopted by the taxpayers.

However, it is a bitter truth that all the taxpayers of a country can never be 100% compliant in their tax obligations, but it is also true that the compliance behavior of taxpayers may be improved by under- standing the phenomenon of why taxpayer evade taxes. This may be the first study to explore the compliance behavior GST tax- payers especially with the application of theory of planned behavior.

The findings of the study as discussed above affirm that the compliance behavior of GST taxpayers is a multifaceted phenomenon which is affected by a number of factors. The results assert that the theory of planned behavior explain 60.137% of the compliance behavior of the GST taxpayers. The findings of the study illustrates that the compliance behavior of taxpayers is affected by the attitude of the GST taxpayers towards the GST taxation system of the country resulting in acceptance of first hypothesis of the study.

A number of studies conducted by Putra & Osman [23]; Witte & Woodbury [24]; Kirchler et al. [25] and Owusu et al. [27] also affirmed this notion and concludes that the attitude of taxpayers has a favora- ble impact on the compliance behavior of the taxpayers.

Similarly, the results affirm that the GST taxpayers are social human being who lives in society and their compliance behavior is directly or indirectly influence by the behavior of their peer or referent group resulting in acceptance of H2. The results are in line to past studies conducted by Kirchler et al. [25]; Owusu et al. [27]; Palil [28]; Lefebvre et al. [29] and Bobek et al. [31]. Moreover, the hypothesis H3 is also accepted which explicates that PBC also play a significant role in influencing the compliance behavior of taxpayers.

Thus, the findings of the study assert in acceptance of all three-hypothesis formulated for achieving the objective of the study and conclude that the compliance behavior of GST taxpayers is positively impacted by the attitude, subjective norms and perceived behavioral control prevailing in the GST taxation system of the country.

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

The findings of the study may be used to comprehend the compliance behavior of GST taxpayers at nation and international levels with the application of theory of planned behavior and the findings of the study may be generalized.

However, to comprehend the compliance behavior of the taxpayers with more consistency and high predictive power, the theory of planned behavior may be extended by adding some other constructs.

Therefore, a future study may be conducted in this domain by extending the theory of planned behavior for comprehending the compliance behavior of the GST taxpayers and to generalize the findings of the study. However, the findings of the study are based on the GST taxpayers of the Indian country only and therefore the findings of the study may be used for conducting further research in this domain accordingly.

CONCLUSION

This study endeavors to explore the determinants of compliance behavior of GST taxpayers in India with the application of theory of planned behavior. The results of the study inferred that the attitude of the GST taxpayers, subjective norms and perceived behavioral control are the major predictor of compliance behavior of GST taxpayers in India explaining over 60% of research variable variance. Similarly, the results of the CFA analysis also affirm the factor extracted from exploratory factor analysis with the application of theory of planned behavior.

The finding of the study exhibits that the compliance behavior of GST taxpayers is positively impacted by the attitude of the GST taxpayers towards the GST taxation system, subjective norms and perceived behavioral control. The foremost important factor is subjective norm explaining a 20.063% of the total research variable variance in determining the compliance behavior of GST taxpayer.

The government should try to build up a common perception in the society that the payment of taxes to the government helps in transformation and development of the nation to create a common environment of trust and accountability among the taxpayers that the guardian of the country is utilizing the resources of the country in a honest and best fit manner. This common belief of the public will also help in boosting the overall compliance behavior of the GST taxpayers as subjective norms also have a favorable impact on the compliance behavior of taxpayers as explicated by the result of the study. The government should try to build a belief among the GST taxpayers that their involvement in non-compliance practices may disapprove them from their peer or social group.

Similarly, the 2nd most important factor is attitude of GST taxpayers towards the GST system of the country in theory of planned behavior. Therefore, the government should take necessary measures to transform the positive attitude of the GST taxpayers towards the GST tax payments. The government should organize various seminars and programs from time to time to change the attitude of the taxpayers and to comprehend them the importance of payment of taxes by them in the development of the Indian economy. Similarly, the perceived behavioral control also has an impact on the compliance behavior of the GST taxpayers.

Therefore, the government should take corrective measures to remove the existing loopholes in the existing GST system to control the raising GST frauds in the country. Moreover, the sanctions of the GST law should be applied through the prism of justice and partially to a more serious category of offenses rather than simply categorizing them as misdemeanors. For this, the government may formulate a special committee and fast track tribunals for taking final decisions timely to create a sense of positive attitude among the taxpayers that their involvement in the GST fraud may result in strict punishment and heavy fines.

The organization of seminars and programs by the government against the GST frauds may help in building a sense of belief among the public that their association in the GST fraud may disapprove them from their social or referent group. As GST has a major share in own tax revenue of

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India

the Indian states, therefore, it become necessitate to formulate appropriate policies and strategies to combat the non-compliance behavior of the taxpayers to improve the taxation revenue of the country.

This study has major implications for the government and policy makers in comprehending the compliance behavior of GST taxpayers in India for devising appropriate policies and strategies to control the prevailing GST frauds in the existing GST system of the country.

REFERENCES

- Ajzen I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 50(2):179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen I., Driver B.L. (1992). Application of the theory of planned behavior to leisure choice. *Journal of Leisure Research*. 24(3):207–224. <https://doi.org/10.1080/00222216.1992.11969889>
- Alleyne P., Harris T. (2017). Antecedents of taxpayers' intentions to engage in tax evasion: Evidence from Barbados. *Journal of Financial Reporting and Accounting*. 15(1):2–21. <https://doi.org/10.1108/JFRA-12-2015-0107>
- 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., Martinez-Vazquez J., Torgler B. (eds). (2010). *Developing Alternative Frameworks for Explaining Tax Compliance*. Routledge. <https://doi.org/10.4324/9780203851616>
- Bani-Khalid T., Alshira'h A.F., Alshirah M.H. (2022). Determinants of tax compliance intention among Jordanian SMEs: A focus on the theory of planned behavior. *Economies*. 10(2):30. <https://doi.org/10.3390/economies10020030>
- Basavanagouda, Panduranga V. (2022). Perspectives and Role of GST Practitioners in Promoting GST Compliance in India. *Vision*. <https://doi.org/10.1177/09722629221114604>
- Bobek D.D., Hageman A.M., Kelliher C.F. (2013). Analyzing the role of social norms in tax compliance behavior. *Journal of Business Ethics*. 115:451–468. <https://doi.org/10.1007/s10551-012-1390-7>
- Chen L.E., Taib M.S. (2017). Goods and services tax (GST): challenges faced by business operators in Malaysia. *SHS Web of Conferences*. 36:00027. <https://doi.org/10.1051/shsconf/20173600027>
- Comrey A.L., Lee H.B. (2013). *A first course in factor analysis*. Psychology Press. <https://doi.org/10.4324/9781315827506>
- Dey S.K. (2021). Impact of goods and services tax on indirect tax revenue of India: with special reference to Odisha state. *Universal Journal of Accounting and Finance*. 9(3):431–441. <https://doi.org/10.13189/ujaf.2021.090318>
- Dey S.K. (2023). Taxpayers' Perceptions Towards Income Tax Administration: A Study from Indian Perspectives. *Journal of Tax Reform*. 9(3):300–316. <https://doi.org/10.15826/jtr.2023.9.3.143>
- Dey S.K., Panda S., Sharma D. (2023). Determinants of Behavior of Payers of Personal Income Tax: An Empirical Study from Indian Context. *Journal of Tax Reform*. 9(2):262–277. <https://doi.org/10.15826/jtr.2023.9.2.141>
- Field A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage. Available at: <https://uk.sagepub.com/en-gb/eur/discovering-statistics-using-ibm-spss-statistics/book257672> (accessed: 15.11.2023).

Fishbein M, Ajzen I. (1975). *Belief, attitude, intention, and behavior: An introduction to Theory and*

- Shubham Garg, Karam Pal Narwal, Sanjeev Kumar** - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India Research. Reading, MA: Addison-Wesley. Available at: <https://people.umass.edu/aizen/f&a1975.html> (accessed: 15.11.2023).
- Garg S., Narwal K.P., Kumar S. (2023). Economic Impact of GST Reforms on Indian Economy: An Empirical Analysis. *Orissa Journal of Commerce*. 43(3):1–16. <https://doi.org/10.54063/ojc.2023.v44i03.01>
- Garg S., Narwal K.P., Kumar S. (2023). Implication of Goods and Service Tax on State's Revenue Efficiency: An Empirical Study on Indian States. *The Review of Finance and Banking*. 15(1):17–28. <https://doi.org/10.24818/rfb.15.01.02>
- Garg S., Narwal K.P., Kumar S. (2024). Exploring the determinants of purchase intention of organic consumers for organic food items: an exploratory study in India. *British Food Journal*. 126(3):1238–1258. <https://doi.org/10.1108/BFJ-09-2023-0788>
- Garg S., Priyanka P., Narwal K.P., Kumar S. (2023). Goods and Service Tax and its implications on revenue efficiency of sub-national governments in India: an empirical analysis. *American Journal of Business*. 38(4):193–210. <https://doi.org/10.1108/AJB-09-2022-0144>
- Garg S., Priyanka P., Narwal K.P., Kumar S. (2023). Goods and Service Tax and its implications on revenue efficiency of sub-national governments in India: an empirical analysis. *American Journal of Business*. 38(4):193–210. <https://doi.org/10.1108/AJB-09-2022-0144>
- Hair J.F., Black W.C., Babin B.J., Anderson R.E. (2014). *Multivariate data analysis*: Pearson new international edition. Essex: Pearson Education Limited. Available at: <https://www.drnishikantjha.com/papersCollection/Multivariate%20Data%20Analysis.pdf> (accessed: 15.11.2023).
- Hamid S.A. (2014). Tax compliance behaviour of tax agents: a comparative study of Malaysia and New Zealand. PhD Thesis. University of Canterbury. <https://doi.org/10.26021/5285>
- Hayat N., Salameh A.A., Mamun A.A., Helmi Ali M., Makhbul Z.K.M. (2022). Tax Compliance Behavior Among Malaysian Taxpayers: A Dual-stage PLS-SEM and ANN Analysis. *SAGE Open*. 12(3). <https://doi.org/10.1177/21582440221127190>
- Ibrahim M., Musah A., Abdul-Hanan A. (2015). Beyond enforcement: what drives tax morale in Ghana? *Humanomics*. 31(4):399–414. <https://doi.org/10.1108/H-04-2015-0023>
- Kirchler E. (2007). *The economic psychology of tax behaviour*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511628238>
- Kirchler E., Hoelzl E., Wahl I. (2008). Enforced versus voluntary tax compliance: The “slippery slope” framework. *Journal of Economic Psychology*. 29(2):210–225. <https://doi.org/10.1016/j.joep.2007.05.004>
- Lefebvre M., Pestieau P., Riedl A., Villeval M.C. (2015). Tax evasion and social information: an experiment in Belgium, France, and the Netherlands. *International Tax and Public Finance*. 22:401–425. <https://doi.org/10.1007/s10797-014-9318-z>
- Malkawi B.H., Haloush H.A. (2008). The case of income tax evasion in Jordan: symptoms and solutions. *Journal of Financial Crime*. 15(3):282–294. <https://doi.org/10.1108/13590790810882874>
- Maulana W., Andrianingsih V. (2023). Moderate Impact of Tax Understanding on The Effect of Theory Planned of Behavior on Taxpayer Compliance of Pamekasan MSMEs. *Coopetition: Jurnal Ilmiah Manajemen*. 14(1):9–18. <https://doi.org/10.32670/coopetition.v14i1.2606>
- Mukherjee S. (2020). Goods and Services Tax efficiency across Indian States: panel stochastic frontier analysis. *Indian Economic Review*. 55(2):225–251. <https://doi.org/10.1007/s41775-020->

Shubham Garg, Karam Pal Narwal, Sanjeev Kumar - Application of Theory of Planned Behavior on Determinants of GST Compliance Behavior of GST Taxpayers: An Empirical Study from India
00097-z

- Nurwanah A., Sutrisno T., Rosidi R., Roekhudin R. (2018). Determinants of tax compliance: Theory of planned behavior and stakeholder theory perspective. *Problems and Perspectives in Management*. 16(4):395–407. [https://doi.org/10.21511/ppm.16\(4\).2018.33](https://doi.org/10.21511/ppm.16(4).2018.33)
- Onu D. (2016). Measuring tax compliance attitudes: What surveys can tell us about tax compliance behaviour. *Advances in Taxation*. 23:173–190. <https://doi.org/10.1108/S1058-749720160000023006>
- Owusu G.M., Bekoe R.A., Mintah R. (2023). Predictors of tax compliance intentions among self-employed individuals: the role of trust, perceived tax complexity and antecedent-based intervention strategies. *Small Enterprise Research*. 30(1):49–70. <https://doi.org/10.1080/13215906.2021.1989622>
- Palil M.R. Tax knowledge and tax compliance determinants in self-assessment system in Malaysia. PhD Thesis, University of Birmingham, Birmingham. Available at: <https://core.ac.uk/download/pdf/76107.pdf> (accessed: 15.11.2023).
- Putra A.F., bin Osman A.H. (2019). Tax compliance of MSME's taxpayer: Implementation of theory of planned behavior. *Journal of Contemporary Accounting*. 1(1):1–10. <https://doi.org/10.20885/jca.vol1.iss1.art1>
- Ramli R., Rizal Palil M., Abu Hassan N.S., Fariq Mustapha A. (2015). Compliance Costs of Goods and Services Tax (GST) among Small and Medium Enterprises. *Jurnal Pengurusan*. 45:39–48. <https://doi.org/10.17576/pengurusan-2015-45-04>
- 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>
- Singhal N., Goyal S., Sharma D., Kumar S., Nagar S. (2022). Do goods and services tax influence the economic development? An empirical analysis for India. *Vision*. <https://doi.org/10.1177/09722629221117196>
- Smart M. (2012). The application of the theory of planned behaviour and structural equation modelling in tax compliance behaviour: A New Zealand study. PhD Thesis, University of Canterbury. <https://doi.org/10.26021/5370>
- Thaha A.R., Antoro A.F.S., Muhtarom. (2023). Analytical Review of Tax Compliance Studies in the SMEs Sector: A Bibliometric Approach. *Journal of Tax Reform*. 9(3):398–412. <https://doi.org/10.15826/jtr.2023.9.3.149>
- Wallschutzky I.G. (1984). Possible causes of tax evasion. *Journal of Economic Psychology*. 5(4):371–384. [https://doi.org/10.1016/0167-4870\(84\)90034-5](https://doi.org/10.1016/0167-4870(84)90034-5)
- Witte A.D., Woodbury D.F. (1985). The effect of tax laws and tax administration on tax compliance: The case of the US individual income tax. *National Tax Journal*. 38(1):1–13. <https://doi.org/10.1086/NTJ41791992>
- Yadav S.S., Shankar R. (2018). Goods and service tax (GST): how and why. *Journal of Advances in Management Research*. 15(1):2–3. <https://doi.org/10.1108/JAMR-12-2017-0110>
- Yew B., Milanov V., McGee R.W. (2015). An analysis of individual tax morale for Russia: Before and after flat tax reform. *International Business Research*. 8(1):60–80. <https://doi.org/10.5539/ibr.v8n1p60>