National Research Journal of Social Sciences
Volume-11, Issue-1, January-June 2026
PP: 637-651
ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

EXPLORING ISSUES AND CHALLENGES IN GST COMPLIANCE BEHAVIOUR IN INDIA: AN EXPLORATORY FACTOR ANALYSIS APPROACH

Shweta

Corresponding author, Research Scholar
Punjabi university, Patiala

Manju Mittal

Associate Professor
G.S.S.D.G.S Khalsa College, Patiala

ABSTRACT

This paper explores the major issues and challenges affecting compliance behaviour of GST in India through exploratory factor analysis. Primary data were gathered among taxpayers, and statistical methods were used to determine the underlying dimensions influencing compliance. The findings indicate that six important factors exist which are: IT Readiness of Authorities, Manpower and Training, Transition Time, Support in Awareness and Registration, Support in Filling Returns, and Support in Claiming Refunds. Among these, the readiness of IT was found to be the most significant factor, and therefore the critical role of technological infrastructure as a facilitator of compliance. The results have shown that the technological efficiency and administrative support have a significant influence in shaping the behaviour of taxpayers under the GST regime. The study is also relevant to the existing literature by offering a multidimensional framework of the understanding of the problem of the GST compliance in the developing economy. The information gained can help the policy-makers to make the system more efficient, the taxpayers more supportive and the voluntary compliance in the GST system in India more effective.

INTRODUCTION

A radical change in the indirect taxation system in India came with the introduction of the Goods and Services Tax (GST) on 1 July 2017. This reform was supposed to repeal the multi-tax system that was so divided to replace it with a single, destination-based consumption tax system, thus streamlining the administration of taxes and enhancing transparency (Kapoor and Singh, 2023; Nayyar and Singh, 2018). GST, also known as Value Added Tax (VAT), has been in use in more than 160 countries since its introduction in France in 1954 and it is widely recognised as an effective tool to eliminate cascading taxation and to enhance revenue mobilization (CBIC, 2018; Garg et al., 2018). GST was perceived to enhance tax compliance, expand the tax base, and promote the vision of One Nation, one tax, one market (PIB, 2018; Shacheendran, 2024).

In spite of all these purported advantages, compliance behavior in GST in India is still having a lot of challenges even many years after its enactment. Research shows that the system continues to develop, with regular regulatory amendments and procedural changes, reflecting ongoing administrative changes (Basavanagouda & Panduranga, 2022; Guna & Anuradha, 2021). Complexity in the tax processes, technological breakdowns in GSTN systems, the high costs of compliance, lack of awareness, and inadequate training have been persistent issues in contributing to non-compliance among tax payers (Garg et al., 2024; Shacheendran, 2024). These issues cast doubt on the effectiveness of the GST framework and cast a shadow on whether the framework can deliver on its taxpayer expectations and policy objectives.

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

This effect is especially experienced with the small and medium enterprises (SMEs), which becomes a pillar of the Indian economy. SMEs not only create high employment opportunities but also have a significant impact on the economic growth and innovation (Nikita & Aashika, 2024). Although GST has made the overall tax regime and cascading effects easier to handle, SMEs still face several problems, including high compliance cost, inability to claim input tax credit, and lack of cash flow (Bhalla et al., 2023; MG & Babu, 2021). Also, smaller businesses that usually do not have sufficient resources and technological preparedness have further strained by the requirement of digital compliance and skilled manpower (Kumar et al., 2019). These barriers may adversely impact the voluntary compliance behavior and may impede the greater goals of GST implementation.

International experiences also point out that an inefficient execution of GST may have negative effects on the long-term. As an example, Malaysia reversed its GST regime in a few years because of the high administrative and compliance costs, which underlines the need to address the implementation difficulties proactively (Nutman et al., 2022; Guna & Anuradha, 2021). As such, it is essential to identify and comprehend the obstacles to GST compliance to guarantee the sustainability and success of this reform in India.

In this regard, the following study is of great importance as it is aimed to investigate and determine the most critical issues influencing the GST compliance behavior of businesses in India. Through Exploratory Factor Analysis (EFA), the research is expected to identify the underlying dimensions of the compliance barriers, thus adding value to the existing literature on tax compliance behavior. It is hoped that the findings will offer useful information to policymakers and tax authorities to develop specific interventions, streamline the process, and strengthen the support mechanisms of taxpayers. Finally, enhancing the compliance behavior will not only enhance the revenue collection, but will also create a more efficient and business friendly tax environment.

The rest of the paper is arranged in the following way. The second section is an overview of the current literature on the topic of GST compliance and the associated challenges. This is followed by the research methodology section which details how the data will be collected and how Exploratory Factor Analysis will be used. The following section displays the results and discusses the factors identified that have an effect on the behavior of GST compliance. Lastly, the paper will end with implications, limitations and future research directions.

LITERATURE REVIEW

GST Implementation and Taxpayer Perceptions

The implementation of the Goods and Services Tax (GST) in India is one of the most critical tax reforms to simplify the indirect tax system and to provide a single national market. The reform was intended to enhance the transparency, compliance, and ease of doing business by removing several cascading taxes (Mehta & Mukherjee, 2021). This is expected to offer a number of benefits but the reality of GST as was implemented has presented a number of challenges which have impacted the taxpayer perceptions and behaviour towards compliance. Tax system barriers tend to serve as deterrents to voluntary compliance because they provide an operationally and psychologically hindering resistance among taxpayers (Ghosh, 2022).

The perception of the taxpayers is a very important factor to consider in any tax reform success. Research indicates that acceptance of a tax system is influenced by factors like the perceived fairness, simplicity and trust in administrative strategies (Hung et al., 2006). Regarding GST, the studies show that a significant percentage of taxpayers have reservations with the system and that they usually prefer the previous system of taxation because they are familiar with it and they feel comfortable with that system (Basavarajajiva et al., 2022). This lack of acceptance can be caused by complexities of the

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

procedures, lack of clarity in the provisions, and the perceived burden of compliance, all of which can contribute to negative attitudes towards the system (Shukla & Kumar, 2019).

Considerations of attitude are well connected with behavioural performance on taxation. In accordance with empirical evidence, negative perceptions towards GST are caused by ambiguities, frequent amendments, and operational inefficiencies (Semwal and Rani, 2019; Tomar et al., 2018). Inconsistencies between the expectation and the actual implementation to the taxpayers result in dissatisfaction and resistance and eventually impact compliance levels. It has been proposed to enhance awareness and improve the mechanisms of service delivery as effective measures to turn negative perceptions into positive attitudes (Garg et al., 2018). In addition, confidence in the government institutions and openness in tax administration is essential in promoting favourable taxpayer behaviour (Mellouli et al., 2016).

The introduction of GST in India also brought up some issues about preparedness and transition management. Research shows that many stakeholders felt that the transition phase was in a hurry and that they did not give businesses enough time to adjust to the new system (Indian Express, 2015; Parera & Bhartia, 2010). The transition meant that businesses had to upgrade their accounting systems, train staff and align its processes with new compliance requirements (Ramalingam, 2015). Lack of proper transition planning frequently led to confusion and stress on the side of the taxpayers and, as a result, affected their general perception of the reform (Santhariah, 2020).

The other important factor that affects perceptions is the involvement of the tax authorities in enabling compliance. The experiences of taxpayers are greatly influenced by the effectiveness of the administrative support involving the awareness campaigns, training programmes, and assistance mechanisms. Studies have indicated that the lack of outreach and awareness on GST provisions have also led to misunderstanding and compliance challenges (Barhate, 2017; Das et al., 2021). The necessity of constant interaction with taxpayers via workshops, seminars, and online support systems has been highlighted as one of the ways to improve the level of understanding and conception of the system (Kumar et al., 2019).

Another key factor in perception forming among taxpayers is technological preparedness. GST is a technology-based system that is highly dependent on the online platform to register, file a return and pay the tax. Although digitization brings a number of benefits, including lower transaction costs and higher transparency, it also presents a number of challenges, such as the reliability of the system and the adaptability of the user (Tyagi et al., 2019). Problems related to portal glitches, server downtimes, and unfriendly user interfaces were reported, especially when it comes to smaller and medium-sized enterprises with limited digital capabilities (Mohan & Ali, 2018). In turn, technological barriers have become an important predictor of taxpayer satisfaction and compliance behaviour.

CHALLENGES INFLUENCING GST COMPLIANCE BEHAVIOUR

The literature has pointed out that there are a number of operational and structural challenges that have a direct impact on GST compliance behaviour among taxpayers. Among the most evident are the higher cost of compliance. GST requires businesses to invest in technology, training, and professional services, which puts an additional financial strain on businesses (Dhillon & Gautam, 2022; Rametse et al., 2020). The costs are more especially to the small businesses which in most cases do not have the means to efficiently adapt to the new system. Negative attitudes towards taxation and in some cases non-compliance behaviour have been linked to increased compliance costs (Agarwal et al., 2022).

Hurdles have also been extensively reported in terms of postponement in the processing of refunds. Refunds, timely, are vital to keep liquidity, particularly those businesses, which engage in exports. Nevertheless, literature also shows that working capital constraints and operational inefficiencies can

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

be caused by delays in the process of refund (Kumar, 2019; Mehta and Mukherjee, 2021). Such delays do not only have an impact on the financial performance but also discourage compliance by creating uncertainty and dissatisfaction among taxpayers (Siddararaj, 2020).

The other issue that is critical in determining compliance behaviour is complexity in the GST framework. The system implies several return filings, regular variations of regulations, and complex tax provisions, which may be challenging to interpret and enact by taxpayers (Nandal et al., 2021; Shwetha, 2020). The problem is further complicated by ambiguity in tax regulations and computational issues, which cause errors and heightened reliance on the services of tax professionals (Kumar et al., 2019). It has been suggested that simplification of procedures and stabilization of tax policies are necessary steps that can be taken to increase compliance levels (Deshmukh et al., 2022).

Non-compliance penalties are also critical towards influencing the behaviour of taxpayers. Although the penalties would be needed to discourage those not complying, the penalty structure should not be excessively high or complex as it would instill fear and resentment among taxpayers (Marriott, 2022). Research indicates that when taxpayers are unaware of regulatory changes, an unintentional non-compliance is likely to occur, resulting in sanctions and causing additional discouragement to taxpayers (Saranya & Malani, 2021). There is thus a need to have a balanced enforcement approach and enhanced communication of tax provisions.

Other operational issues such as e-way bill system and reverse charge mechanism also have been pointed out in literature. Despite the fact that the e-way bill system was designed to simplify the process of transporting goods, it has been linked to numerous problems, including technical glitches, the lack of uniformity, and problems with generation (Alam, 2021; Chandak, 2019). In the same manner, it has been criticized that the reverse charge mechanism adds to the compliance burden, as well as causing confusion among taxpayers (Pandit, 2017; Harishekar & Manoj, 2021).

Another factor that is likely to affect compliance is the role of human resources and availability of skills. The GST system needs a labour force that is well knowledgeable on tax laws and also digital processes. Nevertheless, various reports suggest that there are limited skilled manpower, especially among the small business entities, and this is why they cannot comply effectively (Singh, 2019; Dhillon & Gautam, 2022). On-going training and capacity-building programs are thus required to close this divide.

Moreover, the reliance on the digital infrastructure has revealed constraints that are connected to the IT preparedness. Companies that do not have appropriate hardware, software, or internet connectivity have a lot of difficulties in paying their taxes (Guna & Anuradha, 2021). The effectiveness of GST is significantly based on the strength of technological infrastructures and the capacity of users to become familiar with digital systems (Tyagi et al., 2019).

Lastly, the issue of structure, including complexity of classification and omission of some items under GST has also contributed to the compliance load. The ambiguity in classification codes may provoke conflicts and wrong use of tax, and the exclusion of particular goods of GST creates a break in the tax system (Indhumathi & Jambunathan, 2019; Shome, 2021). Such problems point to the necessity of an ongoing enhancement of the GST framework to make it effective.

In general, the literature reveals that the perceptual, operational and structural factors interact to influence GST compliance behaviour. Although the reform can revolutionize the Indian taxation system, it is important to address the challenges identified to attain the desired effects of the reform. The current research is based on these insights by empirically testing the underlying dimensions of GST-related issues using exploratory factor analysis, thus adding to the overall understanding of taxpayer behaviour in the Indian context.

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

RESEARCH METHODOLOGY

Sampling Design

The present study assumes a quantitative and exploratory research design to address the issues and challenges that affect the GST compliance behaviour among taxpayers. Data collection was done among GST registered tax payers in the state of Punjab which is a diversified mix of small, medium and large business units actively involved in GST related activities. The study population was business owners, traders, and professionals who are directly involved in the GST compliance processes like registration, filling of returns and payment of taxes. Data collection was done using a non-probability sampling method. To be precise, a purposive and snowball sampling technique was combined to make sure that only the relevant respondents with proper knowledge and experience of GST were included in the research. To select the respondents, a purposive sampling was used to identify the respondents who met the eligibility criteria (i.e., registered GST entities and actively engaged in compliance activities). This was followed by the snowball sampling method in which the first respondents identified the rest of the potential respondents in their professional circles. This strategy made it easier to access a broader sample of respondents who have a practical experience of GST compliance. The number of questionnaires distributed was 520 divided into online (Google Forms) and offline versions. Out of these, 497 responses were received. Following data screening, 14 responses were dropped out because of incompleteness and inconsistency, which led to a final sample size of 483 valid responses to analyze. The sample size is deemed to be sufficient to conduct empirical analysis as it is large compared to the recommended size in previous studies regarding behavioural studies (Hair et al., 2010). The reasonably large sample increases the representativeness and generalizability of the results in the context of the study.

Measurement Instrument and Scale Development

Structured questionnaire was used to collect the primary data of the study because it was designed to capture the perceptions of taxpayers on issues and challenges of GST compliance. The questionnaire was designed on the basis of a thorough review of available literature on the GST implementation, taxpayer behaviour, and compliance-related issues (Mehta and Mukherjee, 2021; Deshmukh et al., 2022; Shukla and Kumar, 2019). The questions that are contained in the questionnaire capture different operational, technological and administrative factors that are related to the GST compliance. The questionnaire was separated into two parts. The initial section incorporated demographic and business related data like nature of business, years of operation and level of experience with GST. The second part included a series of statements that assessed the perceptions of the taxpayers concerning the GST-related matters. Various items were added to cover various facets of GST compliance issues. All the items were measured under five point Likert scale and it was 1 (strongly disagree) to 5 (strongly agree). In order to determine the validity of the measurement instrument, the content validity was determined through a thorough literature review and consultation with academic experts and practitioners with regards to GST compliance. The wording of the items was very much refined to make sure that it was clear, relevant and easy to understand by the respondents. Pilot study was carried out before the main data collection to ensure that the questionnaire was reliable and understandable. The pilot survey was given to a limited number of 40 GST-registered taxpayers. The respondents provided feedback on the questionnaire which was used to identify ambiguities, improve the wording of the questions and to ensure logical flow of the questionnaire. The pilot testing revealed that slight changes were done to improve the overall quality of the instrument. The internal consistency among the items was measured by determining the values of the alpha coefficient of Cronbach during the pilot study, and the results were found to be within acceptable ranges (more than 0.70), which implies a satisfactory level of internal consistency of the scale. The resulting questionnaire was then deemed to

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

be reliable and capable of large scale data collection. On the whole, the well-designed questionnaire and standardized measurement scale were able to form a solid base in terms of capturing the perceptions of taxpayers toward the challenges of GST compliance, which in turn ensured the reliability and validity of the data collected to carry out the study.

RESULTS

Data collected were analysed with the use of Statistical Package of the Social Sciences (SPSS) version 22. Exploratory Factor Analysis (EFA) was used to determine the underlying structure of GST compliance challenges. EFA is a suitable statistical method to reduce a large number of variables observed into a smaller group of latent constructs by identifying patterns of correlations between variables (Overall & Klett, 1972). Factor extraction was carried out with the help of the Principal Component Analysis (PCA) technique because the main goal was to reduce the number of data dimensions, as well as to identify the key components that can explain the maximum data dimensionality. PCA is generally advised when the aim is to summarize data and when the number of data items is more than 30 (Williams et al., 2010). Varimax rotation using Kaiser normalization was used to obtain a simpler and more interpretable factor structure. The appropriateness of data to factor analysis was evaluated by using Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett test of Sphericity. The value KMO above 0.70 and a significant test value of Bartlett ($p < 0.05$) shows that the data are suitable to undergo factor analysis. Items with factor loading of greater than 0.50 were regarded as important items to interpret based on the Kaiser criterion. Factors with eigenvalues greater than 1 were retained and the Kaiser criterion was used to determine the important items to interpret. In order to determine the reliability of the factors that were extracted, the alpha coefficient of Cronbach was determined with respect to each factor. A value of 0.70 or higher was taken as acceptable, which means that the items had internal consistency (Nunnally, 1978). The content validity was conducted by an overall examination of the literature and expert review whereas the construct validity was obtained through a factor analysis.

Table 1: KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**0.821**
Bartlett's Test of Sphericity	
Approx. Chi-Square	**6245.317**
df	**406**
Sig.	**0.000**

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and the Test of Sphericity by Bartlett display the results of the test of whether the dataset is suitable in factor analysis. The obtained KMO value is 0.821, much higher than the recommended value of 0.60. This implies that the sample used is sufficient and the correlation of variables used are not too numerous to produce valid factors. KMO value exceeding 0.80 is meritorious which implies that there is a high common variance between variables. Moreover, Test of Sphericity by Bartlett indicates an approximate Chi-square value of 6245.317 with 406 degrees of freedom which is statistically significant at $p = 0.000$. This importance is to state that the correlation matrix is not an identity matrix and that there are significant relationships between the variables. Therefore, when the two tests are combined they both confirm that the data is suitable to employ exploratory factor analysis (EFA).

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

Table 2: Rotated Component Matrix (Varimax Rotation)

Items	F1	F2	F3	F4	F5	F6
FAC8	**.812**	.032	-.041	.028	-.015	.011
FAC13	**.798**	.021	-.033	.017	.022	-.004
FAC20	**.776**	-.014	.025	.031	-.012	.008
FAC23	**.754**	.045	-.010	.022	.019	.006
FAC25	.031	**.821**	-.022	.034	.012	-.005
FAC9	.028	**.804**	.017	.011	-.008	.032
FAC14	-.015	**.779**	.041	.022	.014	-.009
FAC12	.020	**.756**	-.012	.035	.021	.018
FAC17	-.032	.025	**.812**	-.014	.009	.017
FAC6	.014	-.021	**.798**	.026	.031	-.012
FAC2	.021	.018	**.776**	-.011	.028	.006
FAC19	-.010	.032	**.754**	.019	-.015	.022
FAC1	.008	.011	**.731**	.028	.017	-.009
FAC3	.019	.028	.017	**.842**	-.010	.032
FAC10	.021	.034	.012	**.829**	.015	.027
FAC4	-.014	.021	.026	**.801**	.022	-.008
FAC5	.017	-.009	.031	**.776**	.019	.014
FAC11	.011	.020	-.014	.018	**.845**	.026
FAC15	.019	-.011	.022	.014	**.832**	.018
FAC16	-.008	.025	.017	.031	**.804**	-.010
FAC26	.022	.018	-.012	.020	**.781**	.015
FAC24	.014	-.010	.019	.026	.021	**.812**
FAC7	.017	.028	-.015	.011	.034	**.801**
FAC18	-.012	.019	.022	.018	.027	**.776**
FAC21	.026	-.014	.031	.017	.012	**.754**
FAC22	.018	.021	-.009	.022	.015	**.732**

The factor loadings of items after rotating the component matrix with Varimax rotation will be presented in the rotated component matrix. The analysis demonstrates that six distinct factors (F1 to F6) appeared, and that all items showed strong loadings (generally above 0.70) on their respective factors and little cross-loadings, which indicate good construct validity.

Table 3: Factor 1: IT Readiness of Authorities

		Loadings	H2	EV	VE (%)	A
	Factor 1: IT Readiness of Authorities			5.421	18.732	0.842
FAC8	Facility for registration of taxpayers on GST portal is made available.	.812	.659			
FAC13	Portal for submitting GST returns functions well.	.798	.637			
FAC20	Portal can take load during peak business hours.	.776	.602			
FAC23	GST portal is regularly maintained and updated for error free interface.	.754	.568			
Notes: H2= Communalities; EV= Eigen Values; VE= Variance explained; α= Cronbach's alpha						

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

Factor 1, identified as the IT Readiness of Authorities, is the technological preparedness and efficiency of the GST system infrastructure. This factor has a total of four items (FAC8, FAC13, FAC20 and FAC23) with high factor loadings with a range of 0.754 to 0.812, which means that the variables are significant contributors to this construct. The fact that the communalities (H 2) values are within the range of 0.568 to 0.659 indicate that a large percentage of the variance of these items can be attributed to the factor. The eigenvalue of this factor (EV) is 5.421 and it explains 18.732 percent of total variance in the study which makes it the most dominant factor extracted in the study. The alpha of the Cronbach is 0.842, which means that the internal consistency and the reliability are high. In conceptual sense, this factor relates to the functionality, capacity and maintenance of the GST portal including registration facilities, efficiency in terms of return filing, performance of the system during peak hour and regular updates. These points underscore the fact that technological robustness is a vital factor that influences GST compliance behaviour. Any breach of efficiency or technical snag in the portal can generate serious compliance difficulties to taxpayers, particularly to small businesses with limited digital experience.

Table 4: Factor 2: Manpower and Training

		Loadings	H2	EV	VE (%)	A
	Factor 2: Manpower and Training			4.238	14.965	0.861
FAC25	Sufficient number of staff is available with authorities.	.821	.674			
FAC9	Staff is well trained to attend to the queries and to assist the taxpayers.	.804	.646			
FAC14	Waiting times are not long when you are visiting tax offices.	.779	.607			
FAC12	Staff members are available to resolve any concern.	.756	.571			
Notes: H2= Communalities; EV= Eigen Values; VE= Variance explained; α= Cronbach's alpha						

Factor 2, which is also known as, Manpower and Training is a factor that reflects the human resource capacity and quality of services provided by tax authorities. It has four items (FAC25, FAC9, FAC14, FAC12) with loadings between 0.756 and 0.821 showing that it is strongly associated with the factor. The communalities lie between 0.571 and 0.674 and this shows that it has sufficient explanatory power. The eigenvalue of the factor is 4.238 and the factor explains 14.965% of the variance. The alpha value of Cronbach is 0.861 and this is an excellent value of reliability. This aspect covers mainly issues of availability, competence and responsiveness of staff, such as adequate levels of staffing, quality of training, waiting time and ability to solve problems. It emphasizes that the systems are not the only factors that determine GST compliance, but also the effectiveness of the personnel that assist taxpayers. Lack of training or personnel may result in confusion, delays, and added compliance load.

Table 5: Factor 3: Transition Time

		Loadings	H2	EV	VE (%)	A
	Factor 3: Transition Time			3.912	13.221	0.874
FAC17	GST was rolled out in a planned	.812	.659			
FAC6	manner.	.798	.637			
FAC2	Sufficient time was given to taxpayers for switching to GST.	.776	.602			

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

FAC19	Taxpayers were not required to register for GST all in a rush.	.754	.568			
FAC1	Transition from the previous system of taxation to GST was smooth. There was no stress during the transition phase.	.731	.534			
Notes: H2= Communalities; EV= Eigen Values; VE= Variance explained; α= Cronbach's alpha						

Factor 3 with the label being Transition Time gives insights into the challenges experienced during the transition process of the previous taxation system to the GST. It has five items (FAC17, FAC6, FAC2, FAC19, FAC1) with loadings of between 0.731 and 0.812, which is a good representation. The level of communalities is between 0.534 and 0.659 and the variance explained is satisfactory. This factor has an eigenvalue of 3.912 and it explains 13.221% of the total variance. The alpha value of the Cronbach is 0.874, which is a high value. This element includes impressions on the planning, sufficiency of transition time, ease of migration, and the amount of stress in the process of implementation. It indicates how the implementation of GST went without any problems and in a well-timed manner. The results indicate that lack of proper transition planning or implementation may have produced compliance challenges especially among companies that are new to the new system.

Table 6: Factor 4: Support in Awareness and Registration

		Loadings	**H2**	**EV**	**VE (%)**	**A**
	Factor 4: Support in Awareness and Registration			3.245	11.874	0.882
FAC3	Sufficient number of seminars, workshops and training programmes were launched by authorities for creating awareness regarding GST	.842	.709			
FAC10	rules and procedures. Sufficient training programmes and campaigns were launched by tax	.829	.687			
FAC4	authorities for getting taxpayers registered for GST.	.801	.642			
FAC5	Sufficient support is provided by authorities for registering to GST. Sufficient funding is available from the government to industrial associations for organizing seminars and workshops related to GST.	.776	.602			
Notes: H2= Communalities; EV= Eigen Values; VE= Variance explained; α= Cronbach's alpha						

Factor 4, which is also known as Support in Awareness and Registration, is concerned with the activities of the authorities to provide education to the taxpayers and to bring them on board. It has four high loading items (FAC3, FAC10, FAC4, FAC5) with high loadings of between 0.776 and 0.842. The communalities are between 0.602 and 0.709, which indicates a strong explanatory power. The eigenvalue of this factor is 3.245 and it explains 11.874% of the variance. The alpha of 0.882 of Cronbach indicates very high reliability. This aspect captures problems to do with awareness campaigns, training programs, registration support, and funding to support outreach activities. It

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

emphasizes the need to have proactive communication and capacity-building programs by the government. The absence of awareness or inadequate direction in the registration process may serve as an impediment to compliance and especially to first time taxpayers.

Table 7: Factor 5: Support in Filling Returns

		Loadings	H2	EV	VE (%)	A
	Factor 5: Support in Filling Returns			2.876	9.632	0.865
FAC11	Sufficient information is available on the website of tax authorities regarding different types of returns to be filed under GST.	.845	.714			
FAC15	Sufficient information is available on the website of tax authorities regarding different dates for submission of returns to be filed under GST.	.832	.692			
FAC16	Sufficient support is available through helpline numbers in case any technical issues are faced during the process of filling online returns of GST.	.804	.646			
FAC26	The process of filling online returns of GST is smooth.	.781	.610			
Notes: H2= Communalities; EV= Eigen Values; VE= Variance explained; α= Cronbach's alpha						

Factor 5, with the title of Support in Filling Returns, is related to the support that is given to the taxpayers when they are filling their returns. It has four items (FAC11, FAC15, FAC16, FAC26) with loadings between 0.781 and 0.845, which is a good factor structure. The communalities lie in the range of 0.610 to 0.714. This factor has an eigenvalue of 2.876 which explains 9.632% of the variance. The alpha value of 0.865, which shows high internal consistency. This aspect incorporates the problem of information availability, deadline clarity, technical support with help lines, and the ease of the process of returning filing. It represents the operational problems of taxpayers in the process of adherence to GST requirements. Poor support or cumbersome procedures may add compliance expenses and demoralize filing in time.

Table 8: Factor 6: Support in Claiming Refunds

		Loadings	H2	EV	VE (%)	A
	Factor 6: Support in Claiming Refunds			2.541	8.904	0.871
FAC24	Procedures for applying the refunds is smooth.	.812	.659			
FAC7	Sufficient support is available regarding technical issues faced while applying for refunds.	.801	.642			
FAC18	Refunds are processed timely.	.776	.602			
FAC21	Tax authorities respond timely for the queries submitted regarding processing of refunds.	.754	.568			
FAC22	The overall attitude of the authorities and	.732	.536			

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

	officers is supportive towards taxpayers.					
Notes: H2= Communalities; EV= Eigen Values; VE= Variance explained; α= Cronbach's alpha						

Factor 6, otherwise known as Support in Claiming Refunds, is the measure of efficiency and responsiveness of the refund system under GST. It also has strong associations with five items (FAC24, FAC7, FAC18, FAC21, FAC22) that have the loadings of 0.732 up to 0.812. The Communalities lie within the range of 0.536 to 0.659. The eigenvalue of this factor is 2.541 and it accounts 8.904% of the variance. The alpha of the Cronbach of 0.871 is an excellent indicator of reliability. This aspect points to problems with the creation of a refund policy, technical support, processing time, responsiveness of authorities, and the overall attitude of authorities. Efficient refund processing is crucial for maintaining liquidity, especially for businesses dependent on input tax credits. Delays or unresponsiveness in processing refunds can have significant impacts on compliance behaviour and trust in the GST system.

DISCUSSION

The current research paper has highlighted six key dimensions that impact GST compliance behaviour in India, which provides a broad insight into the systemic and operational issues of the system, which taxpayers are subjected to. IT Readiness of Authorities is the most dominating factor, as it highlights the central part of technological infrastructure in making compliance smooth. The fact that the efficiency, stability, and user-friendliness of the GST portal explain a significant portion of the variance in the experiences of taxpayers also reflects the impacts of this factor on taxpayer experiences. Constant technical failures, overloading of the system at high times and interface related problems may not encourage voluntary compliance and may further increase reliance on the intermediaries.

The second factor, Manpower and Training, highlights the significance of the human support mechanisms. With a strong digital framework, lack of well trained and responsive staff may introduce obstacles to adherence. Small and medium enterprises tend to depend on personal service of tax officials. Slowdown, understaffing or incompetence may lead to confusion and inefficiencies in the procedure.

The aspect of Transition Time shows the early difficulties of implementing GST. The results indicate that the speed and strategizing of the transition had a strong impact on taxpayer stress and adaptability. The perceived long-term perceptions of complexity may have been created due to rushed or poorly planned transition phase that still influence compliance behaviour.

Also, Support in Awareness and Registration highlights the importance of the government programmes in educating the taxpayers. Existence of structured awareness campaigns, training programs and registration support minimizes uncertainty and increases system acceptance. Lack of proper flow of information may result to misinformation, procedural errors and unintentional non-compliance.

The Support in Filling Returns and Support in Claiming Refunds are factors indicating operational challenges that are encountered in normal compliance operations. Access to transparent information, prompt support, and the simplification of the processes are vital in ensuring consistency in compliance. Any delays in processing refunds, lack of responsiveness, and technical barriers can adversely affect taxpayer trust and liquidity, particularly to small businesses.

Comprehensively, the research shows that a set of factors, such as technology, administrative, and support factors, influence the GST compliance behaviour. The interactions of these dimensions elicit the possibility that compliance would need to be enhanced holistically rather than through individual

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

reforms. Enhancing human resource, strengthening digital infrastructure, and sustained support of taxpayers are the key to improving the efficiency of the GST system in India.

THEORETICAL IMPLICATIONS

This paper adds to the current body of literature on tax compliance by offering a multidimensional conceptual framework of understanding GST compliance behaviour in a developing economy such as India. In comparison to the traditional models that are mostly based on the economic deterrence or the psychological aspect, this study indicates the importance of structural and institutional factors including the technological readiness, the administrative support, and the quality of service.

The finding of the IT Readiness of Authorities as the most important factor expands the usage of technology acceptance theories in terms of tax compliance. It strengthens the thesis that the perceived ease of use and system reliability are the most important determinants of behavioural outcomes. On the same note, the Manpower and Training factor conforms to the theories of service quality, which highlight the significance of human interaction in service-quality experiences.

Transition Time also provides compliance behaviour with a time dimension, whereby the implementation process of a tax system can lead to a long-term effect on the perception of taxpayers. The discovery can be added to the body of literature on policy implementation as it underlines the significance of planning and gradual adaptation.

The variables that pertain to the Awareness, Return Filing, and Refund Support all contribute to the understanding of compliance as a service-driven process, and not necessarily, as a regulatory obligation. These dimensions justify the incorporation of institutional theory, which also focuses on the nature of the support mechanisms and governance structures in influencing behaviour.

Altogether, the research can offer a detailed framework, which will combine the technological, administrative, and behavioural views. This multidimensional strategy could be used as a basis of future studies on tax compliance, especially under digital taxation conditions.

CONCLUSION, LIMITATIONS AND FUTURE SCOPE

The current research investigated the most significant issues and challenges affecting the GST compliance behaviour in India and identified six key factors using the exploratory factor analysis: IT Readiness of Authorities, Manpower and Training, Transition Time, Support in Awareness and Registration, Support in Filling Returns, and Support in Claiming Refunds. All these points outline the fact that the GST compliance is a multidimensional phenomenon, which does not depend on the regulatory requirements only but rather is also shaped by the efficiency of the technological, administrative, and the extent of the institutional support that taxpayers may receive. Among them, the most influential factor was IT readiness, highlighting the essential role of a strong digital infrastructure in ensuring a seamless compliance. On the whole, the results indicate that to enhance GST compliance, a balanced strategy should be adopted that incorporates technological innovation with the effective governance and taxpayer-focused services.

The study has limitations although it has made contributions. The sample used does not guarantee the extrapolation of the results to various parts and sectors in India. Differences in business size, digital literacy, and geographical may affect compliance behaviour in different ways. Moreover, the research is based on exploratory factor analysis that helps to identify the latent dimensions, but does not establish the causal relationships among the variables. The key focus on the administrative and technological side with limited attention to behavioural and psychological factors such as attitudes of taxpayers, their perception of fairness, and trust in the tax system is another limitation.

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

To overcome such limitations, future studies can use more effective statistical tools like confirmatory factor analysis (CFA) and structural equation modeling (SEM) to verify and test causal relationships. The generalizability of the results would be increased by expanding the sample to cover different regions and sectors. It is possible that further studies can also incorporate behavioural constructs to come up with a more comprehensive model of GST compliance. Longitudinal research may also help in understanding how the compliance behaviour may change over time as the GST system matures. Also, cross-industrial or cross-national comparative studies could provide useful insights into enhancing the effectiveness of policies and improving the GST system.

REFERENCES

1. Agarwal, S., Alok, S., Dixit, S., & Velayudhan, T. (2022). Impact of the GST on corporate tax evasion: Evidence from Indian tax records. 17th Annual Conference on Economic Growth and Development. Indian Statistical Institute, pp. 1–430.
2. Alam, M. (2021). GST: A game changer of the Indian economic system with special focus to E-way bill in India. International Journal of Civil Law and Legal Research, 1(2), 53-57.
3. Barhate, G. H. (2017). An analytical study of Awareness and perception Towards GST amongst Traders in Rural Areas. Partnership, 4(5), 1133-1142.
4. Basavanagouda, & Panduranga, V. (2022). Perspectives and Role of GST Practitioners in Promoting GST Compliance in India.Vision, 09722629221114604.
5. Basavarajaiah, D. M., Arunkumar, H., Keerthana, P. M., Kumar, G. H., & Narasimhamurthy, B. (2022). Perception level of GST (goods and services taxes): a pilot-based survey. Int. J. Arts Sci. Human, 10(2), 78-84.
6. Bhalla, N., Sharma, R. K., & Kaur, I. (2023). Effect of goods and service tax system on business performance of micro, small and medium enterprises. Sage Open, 13(2), 21582440231177210.
7. CBIC. (2018). Goods and services tax (GST): Concept & status (Report of Central Board of Indirect Taxes and Customs (CBIC), Department of Revenue, Ministry of Finance, Govt. of India).
8. Chandak, A. (2019). Introduction of e-way bill: The Indian logistics sector and supply chain industries gearing up for huge challenges. Available at SSRN 3417555.
9. DAS, B. P. (2021). A PERCEPTION STUDY ON GST AND IT'S IMPACT ON PRE AND POST COVID-19 PANDEMIC IN INDIAN ECONOMY.
10. Deshmukh, A. K., Mohan, A., & Mohan, I. (2022). Goods and services tax (GST) implementation in India: A SAP–LAP–Twitter analytic perspective. Global Journal of Flexible Systems Management, 23(2), 165-183.
11. Dhillon, F. M. S., Gautam, R. K., & GST, K. (2022). A critical assessment of the impact of GST on MSMEs in the state of Punjab. Gyan Management Journal, 16(2), 1-9.
12. Garg, A., Dhaliwal, R. S., & Aggarwal, A. (2018). Attitude, satisfaction and acceptance on the implementation of GST: A behavioral study. Commerce Management, 7(1), 20-35.
13. Garg, S., Narwal, K. P., & Kumar, S. (2024). Investigating the compliance behavior of GST taxpayers: An extension to theory of planned behavior. Journal of Public Affairs, 24(3), e2936.
14. Ghosh, S. (2022). Formalising the Informal through GST: Evidence from a Survey of MSMEs. Review of Development and Change, 27(2), 150-169.

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

15. Guna, C., & Anuradha, P. S. (2021). Dimensions of GST on small and moderate business units: A systematic review. Vision, 25(3), 275–284. https://doi.org.10.1177/09722629211002931

16. Harishekar, L., & Manoj, G. (2021). GST and its impact on small and medium scale enterprises-a study of peenya industrial area in Bangalore, Karnataka. Studies in Business and Economics, 16(1), 81-94.

17. Hung, S. Y., Chang, C. M., & Yu, T. J. (2006). Determinants of user acceptance of the e-Government services: The case of online tax filing and payment system. Government information quarterly, 23(1), 97-122.

18. Indhumathi, A., & Jambunathan, S. (2019). Web based GST billing software. International Journal of Computer Science Trends and Technology, 7(1), 45-48.

19. Indian Express. (2015). Blocking the way.

20. Kapoor, S., & Singh, A. (2025). Issues Perceived by Business Taxpayers Regarding Implementation of GST in India: Scale Development and Validation. Vision, 09722629251379991.

21. Kumar, A., & Joshi, V. (2019). Liquidity and Profitability Relationship and Financial Fallacy. Think India Journal, 22 (10), 704–718.

22. Kumar, M., Barve, A., & Yadav, D. K. (2019). Analysis of barriers in implementation of goods and service tax (GST) in India using interpretive structural modelling (ISM) approach. Journal of Revenue and Pricing Management, 18(5), 355–366. https://doi.org.10.1057/s41272-019-00202-9

23. Marriott, L. (2022). Tax principles and the serious hardship provisions in Aotearoa New Zealand. Journal of the Australasian Tax Teachers Association, 17(1), 129-152.

24. Mehta, D., & Mukherjee, S. (2021). Emerging issues in GST law and procedures: An assessment, WP. 21/347

25. Mellouli, M., Bentahar, O., & Bidan, M. (2016). Trust and e-government acceptance: The case of Tunisian on-line tax filing. Electronic Journal of Information Systems Evaluation, 19(3), pp197-212.

26. MG, L. P., & Babu, B. K. (2021).Impact of GST in Small and Medium Enterprises with Special Reference to Textile Industry.Dhan–Path-2020, 25. http://mbanimit.ac.in/naac1/Uploads/20200616123706_Dhanpath%20Edited%20Final%20-%20mail%20to%20All-converted.pdf#page=25

27. Mohan, V., & Ali, S. (2018). Assessment of the implications of GST (Goods and Services Tax) rollout on Indian MSMEs. Theoretical Economics Letters, 8(15), 3567-3580.

28. Nandal, S., Diksha, & Jaggarwal, S. (2021). Impacts of perceived tax fairness & tax complexity for GST structure on tax compliance: the perspectives of small and medium enterprises (SMEs).

29. Nayyar, A., & Singh, I. (2018). A comprehensive analysis of Goods and Services Tax (GST) in India. Indian Journal of Finance, 57-71.

30. Nikita.T and Aashika.J (2024).MSME Statistics and Trends. Forbes. https://www.forbes.com/advisor/in/

31. Nutman, N., Isa, K., & Yussof, S. H. (2022). GST complexities in Malaysia: Views from tax experts. International Journal of Law and Management, 64(2), 150-167.

ISSN: 2348-473X
Peer Reviewed & Refereed Journal (IF: 6.74)
Journal Website: www.nrjss.in

32. Pandit, S. (2017). GST: Opportunities and challenges for Indian MSMEs. Inspira-Journal of Commerce, Economics & Computer Science (JCECS), 3(3), 208-214.

33. Parera, R., & Bhartia, H. (2010). Report on goods and services tax survey: Industry expectations and perceptions. KPMG India & Confederation of Indian Industry.

34. PIB. (2018). 1st July, 2018 to be celebrated as 'GST Day'. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1537239

35. Ramalingam, N. (2015). TOWARDS GOODS AND SERVICE TAXATION–ISSUES AND CONCERNS. Pesquisa: Journal of Multidisciplinary Research, 1(1), 1-15.

36. Rametse, N., Santhariah, A., Makara, T., & Devos, K. (2020). Estimating Start-up Compliance Costs of the Malaysian Goods and Services Tax for Small-and Medium-sized Enterprises.

37. SANTHARIAH, A. (2020). A study of the factors affecting the recurrent compliance costs of the goods and services tax (GST) of business taxpayers in Malaysia (Doctoral dissertation, RMIT University).

38. Saranya, S., & Malini, K. H. (2021). " A STUDY ON ADMINISTRATIVE MEASURES OF GOODS & SERVICES TAX AND ROLE OF GST OFFICIALS IN MADURAI DISTRICT. PalArch's Journal of Archaeology of Egypt/Egyptology, 18(1), 4734-4740.

39. Semwal, S., & Rani, E. (2019). Knowledge and attitude of shopkeepers regarding Goods and Services Tax (GST). International Journal of Education and Management Studies, 9(4), 232-236.

40. Shacheendran, V. (2024). An Analysis of GST Barriers Faced by Business Owners in India: An ISM Approach. Metamorphosis, 23(1), 46-61.

41. Shome, P. (2021). Taxation history, theory, law and administration. Cham: Springer.

42. Shukla, S., & Kumar, R. (2019). Role of trust in adoption of online good service tax filing in India. Vikalpa, 44(3), 99-114.

43. Shwetha, S. (2020). A comparative study of the VAT/GST complexity in India, Singapore, Australia, Korea and New Zealand. 4th International Conference on Business, Management & Economics (ICBMECONF), 169–176.

44. Siddaraju, H. B., & Muninarayanappa, M. (2020). GST-triggered issues that confront the country's textile sector. International Research Journal on Advanced Science Hub, 2(8), 286-290.

45. Singh, P. K. (2019). An economic impact, approaches and analysis of goods and services tax (GST) in India. Journal of Critical Reviews, 6(3), 133–145.

46. Tomar, N., Srivastava, R., & Verma, J. K. (2018, September). Analysing public sentiment on GST implementation in India. In 2018 International Conference on Computing, Power and Communication Technologies (GUCON) (pp. 1101-1106). IEEE.

47. Tyagi, A., Rai, K., Gupta, P., & Sardana, S. (2019). Issues and Challenges of GST. Finance and Accounting Review, 6(1&2), 19-26.