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BEHAVIOURAL DETERMINANTS OF SALES TAX COMPLIANCE AMONG E&E MANUFACTURING IN MALAYSIA

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Abstract

Sales tax compliance remains a significant challenge within Malaysia's manufacturing sector, particularly among Electrical and Electronics (E&E) manufacturing SMEs operating under the Self-Assessment System (SAS). This study examines the behavioural determinants influencing sales tax compliance behaviour using the Theory of Planned Behaviour (TPB) framework. Specifically, the study investigates the influence of tax morale, perceived social media norms, and tax penalties on sales tax compliance behaviour, with intention to comply acting as a mediating variable. Data were collected through a structured questionnaire survey administered to registered E&E manufacturing SMEs across Malaysia. A total of 104 usable responses were analysed using Partial Least Squares Structural Equation Modelling via WarpPLS 7.0. The findings indicate that tax morale and tax penalties significantly influence intention to comply, while perceived social media norms significantly influence sales tax compliance behaviour directly. In addition, intention to comply significantly mediates the relationships between tax morale, tax penalties, and compliance behaviour. The study confirms the applicability of the TPB in explaining sales tax compliance behaviour within Self-Assessment System (SAS) tax environments and contributes industry-specific evidence from Malaysia's E&E manufacturing sector. The findings also provide practical implications for policymakers in strengthening behavioural and compliance strategies within manufacturing industries.

Keywords: Sales tax compliance behaviour, Theory of Planned Behaviour, Tax morale, Electrical and electronics manufacturing SMEs, Intention to comply

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Introduction

Tax compliance remains a persistent challenge for governments worldwide, particularly under SAS where taxpayers are entrusted with the responsibility of accurately reporting and fulfilling their tax obligations. While traditional economic approaches have emphasised enforcement mechanisms such as audits and penalties, growing empirical evidence suggests that such measures alone are insufficient to ensure compliance. Instead, tax compliance is increasingly recognised as a behavioural phenomenon influenced by psychological, social, and institutional factors that shape decision-making processes (Taing & Chang, 2020; Mebratu, 2024; Hayat et al., 2022). Consequently, understanding the behavioural determinants of compliance has become essential for improving voluntary compliance and enhancing the effectiveness of tax systems.

In Malaysia, the importance of tax compliance is closely linked to the structure of the indirect tax system and the role of the manufacturing sector. Malaysia operates a single-stage Sales and Service Tax (SST) regime, in which sales tax is imposed on goods manufactured locally or imported for domestic consumption under the Sales Tax Act 2018. Under this system, manufacturers bear primary responsibility for assessing and remitting tax, thereby placing significant compliance obligations on firms operating within the production stage. The manufacturing sector itself remains a key pillar of the Malaysian economy, contributing approximately 23% to the national Gross Domestic Product (GDP) (Department of Statistics Malaysia, 2024). Within this sector, Small and Medium Enterprises (SMEs) play a crucial role, contributing 39.5% to GDP, equivalent to RM652.4 billion, and accounting for 48.7% of total employment (Department of Statistics Malaysia, 2024). These figures underscore the importance of SME compliance behaviour in ensuring the effectiveness of the sales tax system.

Among manufacturing industries, the E&E sector stands out as the largest contributor to Malaysia's export performance and a key driver of industrial development. The sector accounts for approximately 39% to 40% of total exports and contributes significantly to manufacturing output, representing around 25% to 30% of industrial value-added (Malaysian Investment Development Authority, 2024; Malaysia External Trade Development Corporation, 2024). The E&E industry is characterised by complex production processes, extensive supply chain integration, and a high degree of cross-border transactions. These features create a challenging tax environment, particularly under the sales tax system, where firms must accurately classify goods, determine taxability, and ensure compliance with varying regulatory requirements. As a result, SMEs operating within the E&E sector face greater compliance complexity and risk compared to firms in less intricate industries.

Despite the economic significance of the manufacturing sector, existing tax compliance literature has predominantly focused on direct taxes such as income tax, as well as multi-stage consumption taxes like the Goods and Services Tax (GST) or Value Added Tax (VAT). Empirical research examining sales tax compliance, particularly within single-stage tax systems, remains limited. Furthermore, prior studies have often adopted a generalised approach without adequately considering industry-specific contexts, thereby overlooking the unique challenges faced by sectors such as E&E manufacturing. In addition, traditional deterrence-based models are insufficient to fully explain compliance behaviour, as they fail to capture the influence of behavioural and social factors. This highlights a critical gap in the literature regarding the role of behavioural determinants in shaping sales tax compliance among SMEs operating in complex and economically significant sectors.

To address this gap, this study adopts the TPB as the underlying theoretical framework. The TPB posits that behaviour is determined by intention, which is influenced by three key constructs: attitude, subjective norms, and PBC. In the context of tax compliance, these constructs can be operationalised as tax morale (attitude), social media influences (subjective norms), and tax penalties (PBC). The TPB framework provides a robust and structured approach for examining how internal beliefs and external pressures interact to influence compliance decisions within a SAS tax environment.

Accordingly, this study examines the behavioural determinants of sales tax compliance among E&E manufacturing SMEs in Malaysia. Specifically, the study investigates the influence of tax morale, perceived social media norms, and tax penalties on sales tax compliance behaviour, with intention to comply acting as a mediating variable. This study contributes to the behavioural tax compliance literature by extending the application of the TPB within Malaysia's single-stage sales tax system and providing industry-specific evidence from the E&E manufacturing sector. The findings are expected to provide practical implications for policymakers in strengthening behavioural and compliance strategies within SAS tax environments.

Literature Review

Theory of Planned Behaviour (TPB)

The TPB has been widely applied to explain behavioural intentions and compliance behaviour across manufacturing, environmental, and taxation contexts. The theory explains that behaviour is influenced by three core components, namely attitude toward behaviour, subjective norms, and PBC. This theoretical framework is highly relevant to E&E manufacturing SMEs in Malaysia, particularly in understanding behavioural determinants influencing sales tax compliance under the SAS. Existing empirical evidence supports the applicability of TPB in explaining behavioural decision-making across manufacturing and industrial environments. Prior studies demonstrate that attitude, subjective norms, and PBC significantly influence workplace behavioural intentions, including energy-saving behaviour, safety behaviour, and manufacturing-related decision-making (Canova & Manganelli, 2020; Ali et al., 2021; Bhutto et al., 2020; Lai et al., 2022; Dankacharn et al., 2022). Collectively, these findings indicate that TPB provides a robust behavioural framework for explaining decision-making processes within manufacturing-related operational environments.

Prior empirical evidence further supports the suitability of TPB in explaining tax compliance behaviour across different institutional and tax environments. Multiple studies demonstrate that TPB's core components significantly influence tax compliance intentions and behaviour (Taing & Chang, 2020; Hikmah et al., 2021; Bani-Khalid et al., 2022), while important behavioural determinants include tax morale, tax fairness, and tax complexity (Taing & Chang, 2020; Nurhayati et al., 2025). The framework has also proven applicable across different tax types, including income tax, GST, and corporate tax compliance (Sari & Maradona, 2020; Garg et al., 2024; Harinurudin et al., 2024). Collectively, these findings support the application of TPB as the underpinning theory for examining sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia.

Tax Morale (Attitude)

Tax morale represents the intrinsic motivation of taxpayers to comply voluntarily with tax obligations and reflects an individual's ethical values, civic responsibility, and moral commitment towards taxation. Within the TPB framework, tax morale is closely associated with the attitude component, where taxpayers develop favourable or unfavourable evaluations towards tax compliance behaviour. This behavioural perspective is relevant to E&E manufacturing SMEs in Malaysia operating under the SAS. Existing empirical evidence suggests that tax morale functions as an important behavioural mechanism influencing voluntary tax compliance beyond traditional deterrence approaches. Tax morale, defined as the intrinsic motivation to comply with tax obligations, significantly influences taxpayer behaviour across various contexts (Kornhauser, 2022; Taing & Chang, 2020). Studies show that tax morale, together with perceived tax fairness, significantly influences taxpayers' compliance intentions and behavioural willingness to comply with tax obligations (Taing & Chang, 2020; Hassan et al., 2021). Prior behavioural tax compliance literature further indicates that stronger tax morale is consistently associated with lower tax evasion behaviour and higher levels of voluntary compliance across different institutional and operational settings (Fajarwati, 2023; Owusu et al., 2021). Collectively, these findings suggest that taxpayers with stronger ethical values and favourable attitudes towards taxation are more likely to demonstrate voluntary compliance behaviour within SAS tax environments.

Existing literature further suggests that taxpayers' tax morale is shaped by multiple behavioural, institutional, and ethical factors influencing compliance decisions. Behavioural tax compliance literature indicates that traditional deterrence approaches focusing solely on detection and punishment explain only a limited portion of voluntary compliance behaviour, as personal values, fairness perceptions, and social norms also influence taxpayers' behavioural decisions (Kornhauser, 2022). Studies demonstrate that tax morale, together with tax fairness and tax complexity, significantly affects compliance intentions (Taing & Chang, 2020). In addition, perceived justice and fairness reduce taxpayers' tendency to engage in evasion behaviour (Fajarwati, 2023; Lima et al., 2024), while personality traits such as agreeableness, conscientiousness, and openness to experience positively influence tax morale (Owusu et al., 2021). These findings collectively suggest that stronger tax morale may encourage E&E manufacturing SMEs in Malaysia to comply voluntarily with sales tax obligations despite operational complexity, tax documentation requirements, and financial pressures associated with the manufacturing sector.

Perceived Social Media Norms (Subjective Norms)

Perceived social media norms represent the influence of online social interactions, peer expectations, and digital communication platforms on taxpayers' behavioural intentions and compliance decisions. Within the TPB framework, perceived social media norms are aligned with the subjective norms component, which explains how individuals' behaviour is influenced by perceived social pressure from important reference groups. This perspective is relevant to E&E manufacturing SMEs in Malaysia, where digital platforms and online business communities shape perceptions regarding acceptable tax behaviour and compliance practices. Existing evidence indicates that social media significantly shapes behavioural intentions and subjective norms across various consumer and organisational contexts. Social influence and behavioural norms significantly affect behavioural intentions and decision-making processes across various contexts within the TPB framework (Bhutto et al., 2020; Kumar et al., 2022; Asif et al., 2022). Digital

communication platforms and social influence mechanisms significantly affect attitudes, subjective norms, and behavioural intentions within the TPB framework (Bhutto et al., 2020; Kumar et al., 2022; Asif et al., 2022). Furthermore, digital communication platforms and online interactions significantly shape behavioural intentions, attitudes, and decision-making processes within connected business environments (Kumar et al., 2022; Bhutto et al., 2020). Collectively, these findings suggest that online interactions and digital communication platforms significantly influence behavioural perceptions, attitudes, and decision-making processes within digitally connected business environments.

Prior behavioural tax compliance literature further suggests that perceived social media norms and broader social influence mechanisms significantly affect tax compliance behaviour beyond conventional economic deterrence perspectives. Existing empirical evidence consistently indicates that social norms, including descriptive, injunctive, subjective, and personal norms, positively influence taxpayers' compliance intentions and behaviour among SMEs (Hikmah et al., 2021; Bani-Khalid et al., 2022). Experimental evidence further demonstrates that social norms strengthen the effect of tax penalties on compliance behaviour, although they do not significantly enhance audit probability effects (Cahyonowati et al., 2022). In addition, the TPB framework consistently explains compliance intentions through attitude, subjective norms, and PBC as key behavioural determinants (Bani-Khalid et al., 2022; Taing & Chang, 2020). Collectively, behavioural tax compliance studies indicate that social norms influence taxpayer behaviour beyond purely economic enforcement considerations, suggesting that perceived social media norms may influence sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia through online peer influence, digital information sharing, and socially accepted compliance practices within business communities.

Tax Penalties (PBC)

Tax penalties refer to enforcement measures imposed by tax authorities to discourage non-compliance and encourage taxpayers to fulfil their tax obligations. Within the TPB framework, tax penalties are associated with PBC, which reflects taxpayers' perceptions regarding the consequences and difficulty of non-compliance behaviour. This variable is relevant among E&E manufacturing SMEs in Malaysia operating under the SAS. The TPB has been widely applied in explaining taxpayers' compliance intentions and behaviour across different institutional contexts, with tax penalties consistently identified as an important determinant influencing compliance intentions and behaviour. Studies demonstrate that tax penalties significantly affect tax compliance intention among Malaysian taxpayers (Hayat et al., 2022) and corporate taxpayers in India (Kushwah et al., 2021). In addition, PBC, as a core TPB component, significantly influences compliance intentions across multiple tax compliance settings, including sales tax compliance intentions among Jordanian SMEs (Bani-Khalid et al., 2022). Collectively, these findings suggest that taxpayers are more likely to comply when they perceive stronger enforcement mechanisms and greater consequences associated with non-compliance behaviour.

Existing empirical evidence further suggests that tax penalties significantly influence taxpayer compliance behaviour across different business and regulatory environments. Behavioural tax compliance literature consistently identifies tax penalties as an important enforcement-related determinant shaping taxpayers' compliance decisions across various institutional settings (Kushwah et al., 2021; Hayat et al., 2022; Alshira'h & Abdul-Jabbar, 2020). Studies demonstrate that tax penalties positively influence compliance intentions among

Malaysian taxpayers (Hayat et al., 2022), Indian corporate taxpayers (Kushwah et al., 2021), and Jordanian SMEs (Alshira'h & Abdul-Jabbar, 2020). Prior literature further indicates that taxpayers' compliance behaviour is also influenced by tax awareness, perceived fairness, electronic filing systems, compensation mechanisms, trust in tax systems, and religiosity (Hayat et al., 2022; Saptono et al., 2023; Harinurdin et al., 2024; Owusu et al., 2021; Utama et al., 2022). Collectively, these findings suggest that tax penalties may influence sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia by strengthening taxpayers' perceptions towards enforcement, regulatory responsibility, and compliance obligations within the SAS tax environment.

Sales Tax Compliance Behaviour and Intention to Comply

Sales tax compliance behaviour refers to taxpayers' willingness to fulfil sales tax obligations in accordance with tax regulations. Within the TPB framework, compliance behaviour is influenced by attitude, subjective norms, and PBC. This framework is relevant to E&E manufacturing SMEs in Malaysia operating under the SAS. Existing empirical evidence consistently indicates that TPB components significantly influence taxpayers' compliance intentions and behaviour across different institutional contexts (Hikmah et al., 2021; Bani-Khalid et al., 2022; Owusu et al., 2021). Bani-Khalid et al. (2022) also confirmed that TPB components significantly affect compliance intentions and behaviour, while Owusu et al. (2021) further supported the influence of TPB variables on compliance intentions. Mulatsih et al. (2024) similarly reported that TPB factors significantly predict compliance intentions. Hayat et al. (2022) stated that compliance intention serves as a significant predictor of actual compliance behaviour. Prior empirical findings further suggest that compliance behaviour among manufacturing companies is shaped by behavioural, organisational, and regulatory factors. Laksono and Ardiyanto (2011) demonstrated that attitude toward compliance, subjective norms, and PBC significantly influence tax compliance behaviour among manufacturing companies. Aini et al. (2014) also supported the significant influence of TPB components on compliance behaviour. Tee and Bidin (2020) identified tax complexity, fairness perceptions, peer influence, and tax knowledge as critical factors affecting compliance among SMEs. Sehar et al. (2023) further confirmed that tax audits, penalties, and rates positively correlate with compliance behaviour, while Roida et al. (2025) reported that digitalisation policies increased compliance rates by 42% among manufacturing companies. Collectively, these findings support the suitability of TPB as a behavioural framework for explaining sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia.

Conceptual Framework

This study adopts the TPB as the underpinning theoretical framework to examine behavioural determinants influencing sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia operating under the SAS. TPB explains that behaviour is influenced by attitude, subjective norms, and PBC, which subsequently shape behavioural intention and actual behaviour. In this study, tax morale represents the attitude component, perceived social media norms represent subjective norms, and tax penalties represent PBC, while intention to comply functions as the mediating variable influencing sales tax compliance behaviour.

Existing literature consistently supports the suitability of TPB in explaining taxpayers' compliance intentions and behaviour across different institutional and tax environments. Prior studies indicate that tax morale significantly influences voluntary tax compliance through ethical

values, fairness perceptions, and intrinsic motivation (Kornhauser, 2022; Taing & Chang, 2020; Hassan et al., 2021). Similarly, perceived social media norms and broader social influence mechanisms significantly influence taxpayers' behavioural intentions and compliance decisions through peer influence and subjective norms (Hikmah et al., 2021; Bani-Khalid et al., 2022; Cahyonowati et al., 2022). Tax penalties are also identified as important enforcement mechanisms influencing compliance behaviour through taxpayers' perceptions of regulatory consequences and behavioural control (Hayat et al., 2022; Kushwah et al., 2021; Alshira'h & Abdul-Jabbar, 2020).

Furthermore, prior TPB-based studies demonstrate that intention to comply significantly predicts actual tax compliance behaviour and mediates the relationship between behavioural determinants and compliance outcomes (Taing & Chang, 2020; Hayat et al., 2022; Markonah & Manrejo, 2022). Accordingly, this study proposes that tax morale, perceived social media norms, and tax penalties significantly influence sales tax compliance behaviour directly and indirectly through intention to comply among E&E manufacturing SMEs in Malaysia.

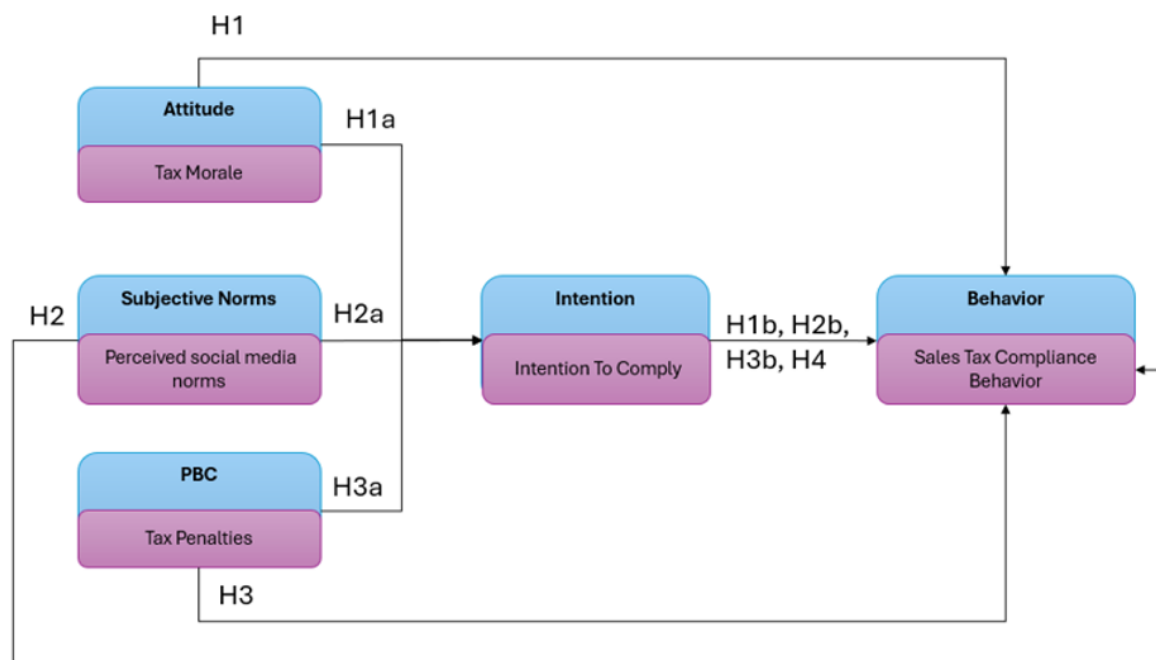


Figure 1. Conceptual framework

Research Hypotheses as per below:

- H1: There is a significant influence of tax morale towards sales tax compliance behaviour.
- H1a: There is a significant influence of tax morale towards intention to comply.
- H1b: Intention to comply mediates the significant influence of tax morale towards sales tax compliance behaviour.
- H2: There is a significant influence of perceived social media norms towards sales tax compliance behaviour.
- H2a: There is a significant influence of perceived social media norms towards intention to comply.

- H2b: Intention to comply mediates the significant influence of perceived social media norms towards sales tax compliance behaviour.
- H3: There is a significant influence of tax penalty towards sales tax compliance behaviour.
- H3a: There is a significant influence of tax penalty towards intention to comply.
- H3b: Intention to comply mediates the significant influence of tax penalties towards sales tax compliance behaviour.
- H4: There is a significant influence of intention to comply towards sales tax compliance behaviour.

Methodology

This study adopts a quantitative research design to examine the behavioural determinants of sales tax compliance among E&E manufacturing SMEs in Malaysia. A quantitative approach is considered appropriate for examining hypothesised relationships between latent behavioural constructs within the TPB framework. Previous tax compliance studies applying TPB have similarly employed quantitative approaches to analyse the relationships between attitude, subjective norms, PBC, and compliance intentions (Taing & Chang, 2020; Hikmah et al., 2021; Bani-Khalid et al., 2022). Data were collected through a structured questionnaire administered to registered E&E manufacturing SMEs across major industrial regions in Malaysia. The study specifically focuses on E&E manufacturing SMEs because the sector operates within a complex sales tax environment under the SAS, where firms are directly responsible for tax reporting and compliance decisions.

A purposive sampling technique was employed to ensure that respondents possessed sufficient knowledge and experience relating to sales tax compliance practices. This sampling approach is consistent with prior behavioural tax compliance studies focusing on targeted taxpayer groups with relevant compliance responsibilities (Owusu et al., 2021; Mebratu, 2024). A total of 250 questionnaires were distributed, and 104 usable responses were retained after data screening procedures to improve data quality and analytical reliability. The final sample size is considered adequate for Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis, as PLS-SEM is suitable for small to medium sample sizes, complex behavioural models, and prediction-oriented research objectives (Hair et al., 2021; Kock, 2020).

The measurement instrument was adapted from established scales in prior tax compliance literature and consisted of five constructs: tax morale, perceived social media norms, tax penalties, intention to comply, and sales tax compliance behaviour. These constructs were operationalised within the TPB framework and measured using a seven-point Likert scale ranging from strongly disagree to strongly agree. The use of Likert-scale measurement is widely adopted in behavioural and compliance research to capture respondents' perceptions and behavioural tendencies (Taing & Chang, 2020; Hikmah et al., 2021). Data analysis was conducted using Partial Least Squares Structural Equation Modelling (PLS-SEM) through WarpPLS version 7.0, which is considered appropriate for predictive and exploratory research involving complex behavioural models and latent constructs (Garg et al., 2024; Harinuridin et al., 2024). The analysis followed a two-stage assessment procedure involving evaluation of the measurement model and structural model through indicator loadings, composite reliability, average variance extracted, path coefficients, p-values, and coefficient of determination (R^2). The use of PLS-SEM is further justified by its

suitability for mediation analysis and behavioural intention modelling within TPB-based tax compliance research (Markonah & Manrejo, 2022).

Result

Model Fit and Quality Assessment

The structural model was evaluated using WarpPLS 7.0 to assess its adequacy in explaining the relationships among tax morale, perceived social media norms, tax penalties, intention to comply, and sales tax compliance behaviour. Table 1 presents the structural model fit and quality indices.

Table 1
Structural Model Fit and Quality Indices

Index	Value	Threshold	Interpretation
APC	0.252 ($p = 0.002$)	$p < 0.05$	Significant
ARS	0.586 ($p < 0.001$)	$p < 0.05$	Acceptable
AARS	0.571 ($p < 0.001$)	$p < 0.05$	Acceptable
AVIF	2.556	≤ 5	Acceptable
AFVIF	2.314	≤ 5	Acceptable
GoF	0.586	≥ 0.36	Large
SPR	1.000	≥ 0.7	Ideal
RSCR	1.000	≥ 0.9	Ideal
SSR	1.000	≥ 0.7	Ideal
NLBCCR	1.000	≥ 0.7	Ideal

Source: Author's computation using WarpPLS 7.0

The Average Path Coefficient (APC) is statistically significant at $p = 0.002$. Similarly, the Average R-squared (ARS) and Average Adjusted R-squared (AARS) values are significant at $p < 0.001$. The Average Block Variance Inflation Factor (AVIF) and Average Full Collinearity Variance Inflation Factor (AFVIF) values are below the recommended threshold of 5.0.

Furthermore, the Tenenhaus Goodness of Fit (GoF) value of 0.586 exceeds the recommended threshold for a large effect size. The remaining model fit indices, namely the Sympton's Paradox Ratio (SPR), R-squared Contribution Ratio (RSCR), Statistical Suppression Ratio (SSR), and Nonlinear Bivariate Causality Direction Ratio (NLBCDR), achieved the ideal value of 1.000. Collectively, these findings confirm that the structural model is statistically adequate and suitable for subsequent hypothesis testing.

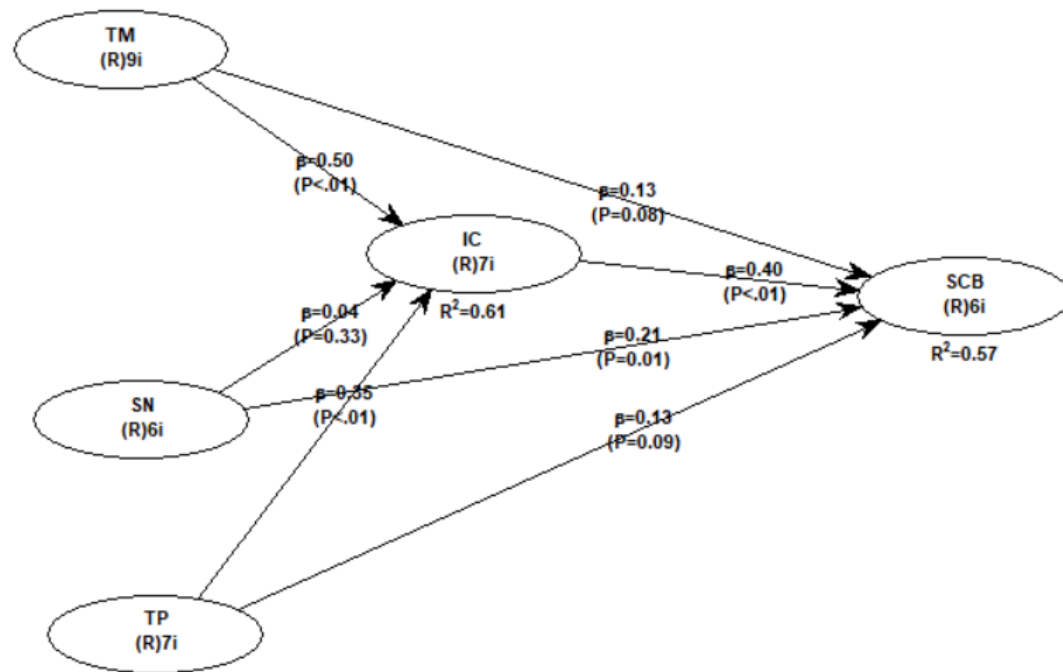


Figure 2. Structural model result

Figure 2 presents the structural model results illustrating the relationships between tax morale, perceived social media norms, tax penalties, intention to comply, and sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia. The model indicates that tax morale and tax penalties significantly influence intention to comply, while perceived social media norms and intention to comply significantly influence sales tax compliance behaviour.

Measurement Model Assessment

The measurement model was assessed to evaluate the reliability and validity of the constructs included in the study. Table 2 presents the composite reliability (CR), Cronbach's alpha, and average variance extracted (AVE) values for each construct.

Table 2

Measurement Model Reliability and Validity

Construct	CR	Cronbach's Alpha	AVE
Tax Morale (TM)	0.924	0.907	0.574
Perceived Social Media Norms (SN)	0.852	0.791	0.490
Tax Penalties (TP)	0.876	0.834	0.510
Intention to Comply (IC)	0.949	0.938	0.728
Sales Tax Compliance Behaviour (SCB)	0.911	0.882	0.633

Source: Author's computation using WarpPLS 7.0

The composite reliability values for all constructs exceeded the recommended threshold of 0.70. Similarly, Cronbach's alpha values for all constructs were above 0.70. The average variance extracted (AVE) values for tax morale, tax penalties, intention to comply, and sales tax compliance behaviour exceeded the recommended threshold of 0.50. Although the AVE value for perceived social media norms was marginally below the recommended threshold at 0.490, the construct was retained because the composite reliability and Cronbach's alpha values exceeded the recommended threshold of 0.70, indicating acceptable convergent validity in exploratory behavioural research

In addition, the indicator loadings for all measurement items were statistically significant at $p < 0.001$. Most factor loadings approached or exceeded the recommended threshold of 0.70, while all indicators remained statistically significant at $p < 0.001$. Collectively, these findings indicate that the measurement model achieved acceptable reliability and validity for subsequent structural model analysis and hypothesis testing.

Structural Model Assessment and Hypothesis Testing

The structural model was assessed to examine the hypothesised relationships among tax morale, perceived social media norms, tax penalties, intention to comply, and sales tax compliance behaviour. Table 3 presents the direct effect:

Table 3

Structural Model Direct Effects

Hypothesis	Relationship	Path Coefficient (β)	p-value	Result
H1	TM $\rightarrow$ SCB	0.132	0.084	Not Supported
H1a	TM $\rightarrow$ IC	0.497	< 0.001	Supported
H2	SN $\rightarrow$ SCB	0.211	0.013	Supported
H2a	SN $\rightarrow$ IC	0.041	0.335	Not Supported
H3	TP $\rightarrow$ SCB	0.128	0.090	Not Supported
H3a	TP $\rightarrow$ IC	0.353	< 0.001	Supported
H4	IC $\rightarrow$ SCB	0.404	< 0.001	Supported

Source: Author's computation using WarpPLS 7.0

The results indicate that tax morale significantly influences intention to comply ($\beta = 0.497$, $p < 0.001$). However, the direct relationship between tax morale and sales tax compliance behaviour is not statistically significant ($\beta = 0.132$, $p = 0.084$).

The findings further show that perceived social media norms significantly influence sales tax compliance behaviour ($\beta = 0.211$, $p = 0.013$). However, perceived social media norms do not significantly influence intention to comply ($\beta = 0.041$, $p = 0.335$).

In addition, tax penalties significantly influence intention to comply ($\beta = 0.353$, $p < 0.001$). Nevertheless, the direct relationship between tax penalties and sales tax compliance behaviour is not statistically significant ($\beta = 0.128$, $p = 0.090$).

Furthermore, intention to comply significantly influences sales tax compliance behaviour ($\beta = 0.404$, $p < 0.001$). Overall, the findings indicate that intention to comply plays an important role in explaining sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia.

Coefficient of Determination (R^2)

Table 4 presents the coefficient of determination (R^2) values for the endogenous constructs included in the structural model.

Table 4

Coefficient of Determination (R^2)

Construct	R^2	Interpretation
Intention to Comply (IC)	0.605	Moderate
Sales Tax Compliance Behaviour (SCB)	0.566	Moderate

Source: Author's computation using WarpPLS 7.0

The results indicate that the model explains 60.5% of the variance in intention to comply and 56.6% of the variance in sales tax compliance behaviour. Collectively, the findings indicate that the endogenous constructs achieved moderate explanatory power within the structural model.

Mediation Analysis

Table 5 presents the indirect effects used to assess the mediating role of intention to comply in the relationship between tax morale, perceived social media norms, tax penalties, and sales tax compliance behaviour.

Table 5

Indirect Effects (Mediation Analysis)

Hypothesis	Path	Indirect Effect (β)	p-value	Result
H1b	TM $\rightarrow$ IC $\rightarrow$ SCB	0.201	0.001	Supported
H2b	SN $\rightarrow$ IC $\rightarrow$ SCB	0.017	0.404	Not Supported
H3b	TP $\rightarrow$ IC $\rightarrow$ SCB	0.143	0.017	Supported

Source: Author's computation using WarpPLS 7.0

The results indicate that intention to comply significantly mediates the relationship between tax morale and sales tax compliance behaviour ($\beta = 0.201$, $p = 0.001$). Similarly, intention to comply significantly mediates the relationship between tax penalties and sales tax compliance behaviour ($\beta = 0.143$, $p = 0.017$). However, intention to comply does not significantly mediate the relationship between perceived social media norms and sales tax compliance behaviour ($\beta = 0.017$, $p = 0.404$).

Total Effects

Table 6 presents the total effects of the structural model relationships.

Table 6

Total Effects

Relationship	Total Effect (β)	p-value
TM $\rightarrow$ SCB	0.333	< 0.001
SN $\rightarrow$ SCB	0.228	0.008
TP $\rightarrow$ SCB	0.271	0.002
IC $\rightarrow$ SCB	0.404	< 0.001

Source: Author's computation using WarpPLS 7.0

The total effects analysis indicates that tax morale exerts the strongest overall influence on sales tax compliance behaviour ($\beta = 0.333$, $p < 0.001$), followed by tax penalties ($\beta = 0.271$, $p = 0.002$) and perceived social media norms ($\beta = 0.228$, $p = 0.008$). In addition, intention to comply demonstrates a significant positive influence on sales tax compliance behaviour ($\beta = 0.404$, $p < 0.001$).

Discussion

The findings of this study provide support for the application of TPB in explaining sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia. Overall, the results demonstrate that intention to comply plays a central role in translating behavioural and enforcement-related factors into actual sales tax compliance behaviour. This finding is consistent with TPB, which posits that behavioural intention functions as the immediate antecedent of actual behaviour (Ajzen, 1991). The findings also support prior tax compliance studies which reported that TPB components significantly influence taxpayers' compliance intentions and behaviour across different institutional contexts (Hikmah et al., 2021; Bani-Khalid et al., 2022; Owusu et al., 2021). Within the context of Malaysia's SAS, these findings suggest that compliance behaviour among E&E manufacturing SMEs is influenced not only by enforcement mechanisms, but also by behavioural and social considerations shaping taxpayers' compliance intentions.

The significant relationship between tax morale and intention to comply indicates that moral values, ethical responsibility, and intrinsic motivation play an important role in strengthening taxpayers' willingness to comply with sales tax obligations. This finding supports the attitude component of TPB, where favourable evaluations toward compliance behaviour positively influence behavioural intention (Ajzen, 2020). The result is consistent with previous studies demonstrating that tax morale significantly influences compliance intentions through ethical values and intrinsic motivation (Taing & Chang, 2020; Kornhauser, 2022; Hassan et al. (2021)). However, tax morale does not significantly influence sales tax compliance behaviour directly. This finding suggests that moral beliefs alone may not be sufficient to produce actual compliance behaviour among E&E manufacturing SMEs. One possible explanation is that compliance within the manufacturing sector involves operational complexity, product classification issues, documentation requirements, and administrative capabilities associated with

the sales tax system. Consequently, tax morale may first strengthen taxpayers' intention to comply before influencing actual compliance behaviour.

The findings further reveal that perceived social media norms significantly influence sales tax compliance behaviour directly, but do not significantly influence intention to comply. This finding suggests that online peer influence, digital communication platforms, and socially accepted business practices may shape actual compliance behaviour more directly rather than through internal behavioural intention. In highly connected manufacturing environments such as the E&E sector, SMEs frequently rely on digital platforms, business communities, and online information sharing for operational and regulatory guidance. As a result, firms may adopt compliance behaviour based on prevailing peer practices and digital business norms. This finding is consistent with prior studies highlighting the influence of subjective norms and social influence mechanisms on taxpayers' compliance behaviour (Hikmah et al., 2021; Bani-Khalid et al., 2022). The result also supports studies demonstrating that digital communication platforms, social influence, and behavioural norms significantly shape behavioural perceptions and decision-making processes within various behavioural contexts (Bhutto et al., 2020; Kumar et al., 2022; Asif et al., 2022).

In addition, tax penalties significantly influence intention to comply, but do not significantly influence sales tax compliance behaviour directly. This finding supports the PBC component of TPB, where taxpayers' perceptions regarding enforcement consequences and regulatory control influence behavioural intention (Ajzen, 2020). The result is consistent with previous studies demonstrating that tax penalties significantly strengthen taxpayers' compliance intentions (Hayat et al., 2022; Kushwah et al., 2021; Bani-Khalid et al., 2022). However, the insignificant direct relationship between tax penalties and actual compliance behaviour suggests that enforcement mechanisms alone may not automatically translate into compliance behaviour within complex manufacturing environments. E&E manufacturing SMEs may still experience operational and administrative difficulties despite recognising the risks associated with non-compliance. Therefore, tax penalties may influence compliance behaviour indirectly by strengthening taxpayers' intention to comply with regulatory obligations.

The mediation analysis further confirms the important role of intention to comply as a key behavioural mechanism within the TPB framework. Intention to comply significantly mediates the relationship between tax morale and sales tax compliance behaviour, as well as between tax penalties and compliance behaviour. This finding reinforces TPB, which explains that behavioural intention serves as the primary mechanism translating attitude and PBC into actual behaviour (Ajzen, 2020). The findings are also consistent with prior TPB-based tax compliance studies demonstrating that behavioural intention significantly mediates the relationship between behavioural determinants and compliance outcomes (Taing & Chang, 2020; Hayat et al., 2022; Markonah & Manrejo, 2022). However, intention to comply does not significantly mediate the relationship between perceived social media norms and compliance behaviour, suggesting that social media norms may influence compliance practices more directly through peer observation and socially accepted digital business behaviour.

Overall, the findings confirm the suitability of the TPB in explaining sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia. The study demonstrates that tax morale and tax penalties influence compliance behaviour indirectly through intention to comply, while perceived social media norms exert a more direct influence on actual compliance practices. These findings suggest that improving sales tax compliance within manufacturing environments may

require not only enforcement-based approaches, but also behavioural and digital engagement strategies capable of strengthening taxpayers' compliance intentions, ethical awareness, and socially accepted compliance practices within business communities.

Conclusion

This study examined the behavioural determinants influencing sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia using the TPB framework. Specifically, the study investigated the influence of tax morale, perceived social media norms, and tax penalties on sales tax compliance behaviour, with intention to comply acting as a mediating variable. The findings demonstrate that tax morale and tax penalties significantly influence intention to comply, while perceived social media norms significantly influence sales tax compliance behaviour directly. In addition, intention to comply significantly influences compliance behaviour and mediates the relationships between tax morale, tax penalties, and sales tax compliance behaviour. These findings confirm the important role of behavioural intention in translating ethical values and enforcement perceptions into actual compliance behaviour within SAS tax environments.

Overall, the study supports the applicability of the TPB in explaining sales tax compliance behaviour among E&E manufacturing SMEs in Malaysia. The findings suggest that improving sales tax compliance may require not only enforcement-based approaches, but also behavioural and digital engagement strategies capable of strengthening taxpayers' compliance intentions, ethical awareness, and socially accepted compliance practices within business communities. This study contributes to behavioural tax compliance literature by extending the application of the TPB within Malaysia's single-stage sales tax system and providing industry-specific evidence from the E&E manufacturing sector operating under the SAS environment.

Limitations And Future Research

This study is subject to several limitations. First, the use of cross-sectional data restricts the ability to establish causal relationships between behavioural determinants and compliance behaviour. Second, the study focuses specifically on E&E manufacturing SMEs in Malaysia, which may limit the generalisability of the findings to other industries and jurisdictions. Third, the study examines selected TPB constructs and behavioural variables, while other institutional and organisational factors may also influence sales tax compliance behaviour. Future research may consider longitudinal approaches, additional behavioural variables, and comparative industry analysis to further strengthen understanding of tax compliance behaviour within SAS tax environments.

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