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Article

Tax education capability and employees' sales tax compliance behaviour: integrating human capital theory and the theory of planned behaviour

Azmeer Nasri[1], Yusri Hazrol Yusoff[1,*], Muhamad Ghazali Mamat Mansor[2]

[1]Faculty of Accountancy, Universiti Teknologi MARA, Cawangan Selangor, Bandar Puncak Alam 42300, Selangor, Malaysia

[2]Jabatan Pendaftaran Negara, Kementerian Dalam Negeri, Pusat Pentadbiran Kerajaan Persekutuan, Putrajaya 62551, Wilayah Persekutuan Putrajaya, Malaysia

[*]**Corresponding author:** Yusri Hazrol Yusoff, yusrihazrol@uitm.edu.my

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Abstract: The growing complexity of tax regulations has demanded employee capability development to support sales tax compliance responsibilities. Yet little research has examined sales tax compliance from a human resource management (HRM) capability perspective. This research aimed to investigate the associations between Tax Education Capability (TEC), Intention to Comply (ITC) and Employees' Sales Tax Compliance Behaviour (ESTCB), and to examine the mediating role of ITC by integrating Human Capital Theory (HCT) and Theory of Planned Behaviour (TPB). A quantitative cross-sectional survey was conducted with employees charged with sales tax compliance in Malaysian manufacturing organisations. Of the 500 distributed questionnaires, 400 usable responses were analysed via Partial Least Squares Structural Equation Modelling (PLS-SEM) with WarpPLS 8.0. Results showed significant relationships between TEC, ITC, and ESTCB, with ITC partially mediating the relationship between TEC and ESTCB. The study contributes by integrating HCT and TPB by framing TEC as a domain-specific employee capability that links organisational learning and development efforts to the behavioural process underlying workplace compliance. Managerially, results indicate that regulatory capability development may be leveraged within organisational learning and development efforts to support employees responsible for sales tax compliance.

Keywords: human capital theory; theory of planned behaviour; tax education capability; learning and development; employee performance; sales tax compliance behaviour.

1. Introduction

Regulatory requirements have always evolved due to the rapid digitalisation and automation of business processes. The transformation of business operations has altered the skillsets required to fulfil employees' day-to-day responsibilities and meet regulatory requirements. From the lens of human resource management (HRM), learning and development are important organisational mechanisms to develop employees' knowledge, skills, and capabilities. This is particularly critical for employees whose responsibilities require them to interpret regulatory requirements, maintain organisational records, and exercise correct professional judgment in making compliance-related decisions. Additionally, employees in compliance must be able to leverage technological advancements (e.g., digital reporting systems).

The skills demands are particularly evident in sales tax compliance, making it more challenging for organisations to ensure corporate compliance. The regulatory tax environment in Malaysia continues to grow in complexity, requiring

organisations and employees to continually adapt to evolving legislation, tax administration, and digital reporting systems (such as e-invoice). Therefore, organisations require capable employees who are knowledgeable, competent, confident, and can accurately perform sales tax compliance tasks to ensure effective sales tax compliance that may affect internal controls. In addition, employees responsible for sales tax compliance must ensure accurate records and compliance with statutory requirements.

Awareness of employees' capabilities through tax education and training has received increasing attention in Malaysia. In 2025, 29,147 participated in 242 tax education and awareness programs by Royal Malaysian Customs Department (RMCD), of which 157 programmes conducted for private-sector organisations (RMCD, 2025). These figures found that the country continues to value education and capability as essential elements in promoting voluntary compliance. Although organisations in Malaysia value education, many still struggle with compliance, even when provisions, digital initiatives, and reforms to the underlying regulations are in place. It implies that compliance requires not only proficiency in the law and digital systems but also accuracy, consistency, and timeliness in making compliance-related decisions. Hence, employee capability is a critical resource because it enables the conversion of regulatory dictates to actual behavioural compliance in the workplace.

Research investigating sales tax compliance has primarily focused on individual behavioural, deterrence, institutional, and regulatory influences on compliance decision-making. Less attention has been given to understanding how organisational investment in employee capability may influence compliance behaviour from an HRM perspective. This underrepresented area is a critical gap since employees are responsible for compliance-related actions.

To address the gap, this study integrates Human Capital Theory (HCT) and Theory of Planned Behaviour (TPB) to provide a theoretical complement between two frameworks that are traditionally studied independently. By bridging employee capability development with the underlying behavioural process in achieving compliance, this study provides a comprehensive explanation of sales tax compliance behaviour. HCT provides the underpinning development behind how organisational learning contributes to employee capability, while TPB provides the behavioural explanation behind the relationship between capability and behaviour.

In this study, Tax Education Capability (TEC) is positioned as a domain-specific employee capability that may link organisational training and learning to employees' tax compliance activities. This is crucial because, previously, employee capability development was less understood as a factor that may improve sales tax compliance behaviour. TEC is a domain-specific employee capability developed from education and learning experiences, which is different from perceived behavioural control (PBC). PBC is defined as a broad behavioural perception regarding whether performing a behaviour is within the individual's power to control. As such, TEC is not treated as interchangeable with PBC. Thus, TEC serves as a capability-based antecedent from which individuals may form stronger or weaker perceptions of their capability to perform sales tax compliance duties.

HRM provides additional explanation by positioning tax education as beyond tax knowledge acquisition, but rather the development of an employee capability specific to the tax domain that is associated with intention and compliance behaviour. While Intention to Comply (ITC) represents the behavioural intention through which capability may be translated into compliance behaviour. Therefore, this study investigates the relationship between TEC and both Intention to Comply (ITC) and Employees' Sales Tax Compliance Behavior (ESTCB), as well

as ITC as a mediator among employees responsible for sales tax compliance in Malaysian manufacturing firms. Through this process, the study positions capability development as an HRM issue and builds on previous research by examining the association between a domain-specific employee capability and workplace compliance behaviour via intention.

2. Literature review

2.1. Human capital theory (HCT)

Human capital is defined as an organisational resource utilised to build workforce capability, drive innovation, and secure long-term competitive advantage (Griggio & Oxenswärdh, 2021; Latov & Tikhonova, 2021; Bandelj & Spiegel, 2022). Human Capital Theory (HCT) suggests that employers invest in education, training, and experiences that increase knowledge, skills, and employee productivity which contribute to productivity in the long run (Becker, 1964). Investments in human capital create value by increasing employee capabilities, performance, and adaptability, thereby reducing organisational risk, and sustaining organisational competitiveness.

These studies have also shown that human capital can improve organisational sustainability, knowledge sharing, innovation capability, and business performance (Hanifah et al., 2021; Aljuboori et al., 2021; Alqershi et al., 2023a, 2023b). Tax incentives that provide firms with opportunities to invest in employee education have been found to contribute to stronger firm-specific human capital and increase productivity and innovation (Huang et al., 2024). Therefore, HCT theoretically grounds TEC as a capability that is built through formal employee education and training.

However, HCT has been heavily criticised for excessively focusing on investing individual capacity without considering how institutional and social constructs impact learning behaviour among employees (Auerbach & Green, 2024). Despite its narrow focus, HCT is one of the most widely adopted theories for explaining investments in employee education and capability.

2.2. Theory of planned behaviour (TPB)

TPB is one of the most commonly used theories to explain individuals' intention and behaviour across organisational and regulative settings. The theory proposes that a person's choices are primarily driven by intention, which is shaped by attitude, subjective norm, and PBC (Ajzen, 1991). Out of TPB's three constructs, perceived control specifically pertains to how capable individuals believe in terms of their knowledge, skill, confidence, and resources to enact a specific behaviour (Ajzen, 2020). Several recent studies support TPB as a strong predictor of tax compliance, environmental responsibility, entrepreneurship, technology adoption, and other workplace tendencies (Razali et al., 2020; Mohamad et al., 2022; Chan et al., 2022; Ashari et al., 2021; Harinurdin et al., 2024).

Research on tax compliance using TPB has found that PBC has a statistically significant positive impact on tax compliance intentions (Owusu et al., 2021; Hayat et al., 2022; Garg et al., 2024; Lekjaeng & Sincharoonsak, 2025). Based on this body of literature, the current study conceptualises TEC as employees' capability developed by the organisation through education and training. This capability relates directly to how employees perceive their ability to perform sales tax compliance duties. TPB provides the theoretical reasoning for how this capability relates to ESTCB through ITC.

2.3. Tax education capability (TEC)

Employee capability is defined as an organisational resource that develops over time with consistent learning and competency development. In this study,

Tax Education Capability (TEC) is conceptualised as an employee-level perceived capability that is domain-specific and may be developed through education opportunities. Unlike prior tax compliance research that has primarily considered tax education as tax knowledge or awareness (i.e., tax literacy), this paper focuses on TEC as employees' perceptions of their knowledge, competence, confidence, and capability to successfully complete sales tax compliance tasks. An employee capability perspective assumes that, with continued learning and capability development, employees can better adjust to new or changing demands, increase the accuracy of their judgment, improve work performance, and reduce mistakes and risk.

TEC is therefore conceptualised as an employee capability developed through organisational learning and development efforts rather than tax training attendance per se. TEC draws from principles of HCT and TPB while remaining distinct from related tax constructs within the behavioural literature. HCT provides the foundation for the developmental component of TEC by explaining how investments in education and training enable employees to develop knowledge, skills, and capabilities (Becker, 1964; Griggio & Oxenswärdh, 2021; Huang et al., 2024). TPB informs the behavioural component of TEC by describing how perceived capability informs intention and subsequent conduct (Ajzen, 2020). Within this study, TEC is defined as an employee's perceived capability to perform workplace sales tax compliance responsibilities developed through organisational tax education and learning.

TEC is conceptually distinct from several closely related constructs. First, tax knowledge represents what an employee knows about taxation, while tax literacy reflects one's ability to understand and apply tax information. Second, employee competence is a broader construct that may encompass tax-related knowledge, skills, and abilities across multiple work responsibilities, whereas TEC focuses on sales tax compliance-specific duties. Third, training effectiveness measures how well a training intervention facilitates learning or performance outcomes, whereas TEC represents the capability an employee holds following education and development opportunities. Finally, TEC differs from PBC while both terms include perceptions of capability, PBC is representative of an individual's perception that they have authority over performing a given behaviour. TEC, on the other hand, represents employees' perceived knowledge, competence, confidence, and capability to perform sales tax compliance responsibilities, specifically as developed through formal learning. Organisational training represents a developmental input, TEC represents an employee's resulting capability regarding a tax-specific domain, and behavioural intention related to TEC. Accordingly, organisational training and learning are treated as developmental inputs through which employees may develop tax-related capability, rather than as reflective indicators of TEC itself.

H1: TEC is positively associated with Intention to Comply.

H2: TEC is positively associated with Employees' Sales Tax Compliance Behaviour.

2.4. Intention to comply (ITC)

Behavioural intention is an indication of an individual's conscious motivation and willingness to engage in a behaviour. Within the TPB theory, intention is viewed as the most proximal determinant of behaviour (Ajzen, 2020). Employees with stronger intentions are more likely to translate their knowledge, perceived ability, and commitment into work. Therefore, Intention to Comply (ITC) is defined as employees' willingness and commitment to perform sales tax compliance tasks correctly according to the organisation's policies and legal requirements.

Behavioural intention has been posited as an underlying tax compliance behaviour in the past. Studies using the TPB theory have found significant relationships between PBC, tax awareness, perceived fairness, and tax knowledge on taxpayers' ITC, which was then linked to tax compliance behaviour (Owusu et al., 2021; Hayat et al., 2022; Harinurdin et al., 2024; Garg et al., 2024; Lekjaeng & Sincharoonsak, 2025). In the present study, ITC reflects the proximal mechanism through which employees' domain-specific capability may relate to sales tax compliance behaviour. Employees with stronger TEC may feel more capable of performing their tax compliance responsibilities, which may lead to stronger intentions to comply and, ultimately, higher ESTCB.

H3: Intention to Comply is positively associated with Employees' Sales Tax Compliance Behaviour.

2.5. Employees' sales tax compliance behaviour (ESTCB)

ESTCB is defined as employees' on-the-job behaviour to complete sales tax obligations accurately, consistently, and on time with regard to relevant statutes and policies. Compliance behaviour focuses on how employees use their professional judgement, accuracy when completing tax obligations, keeping relevant tax paperwork, and consistently applying known requirements to daily operations. Looking through the lens of HRM, compliance is employees' demonstrated capability through performing relevant actions in the workplace.

Findings from past studies also found associations between tax knowledge, PBC, trust, perceived fairness, and tax awareness with tax compliance behaviour (Alshira'h et al., 2021; Hassan et al., 2021; Hayat et al., 2022; Trifan et al., 2023; Adem et al., 2024; Musah et al., 2026). Most studies framed tax compliance as an enforcement-specific construct while excluding the development of employee capability through activities such as learning and training as a huge determinant of compliance.

Drawing on HCT and TPB, the study proposes that employees with higher TEC will report stronger ITC which will be associated with higher Employees' Sales Tax Compliance Behaviour. The inclusion of ITC as a mediator provides the behavioural mechanism through which TEC is related to workplace compliance behaviour. Through the lens of HCT, organisational learning and development activities provide employees with the contextual foundation for developing domain-specific capability to perform their regulatory responsibilities. However, employees having such capability does not ensure the capability will be acted on through corresponding workplace behaviour. TPB provides a behavioural explanation for this process by specifying behavioural intention as the key mechanism through which employees' perceived capability (e.g., TEC) translates to subsequent behaviour. Employees with stronger TEC may have greater knowledge, competence, and confidence, as well as a perceived ability to perform their sales tax compliance responsibilities. This capability is then associated with stronger intentions to perform their sales tax responsibilities as required by regulations. This intention is then associated with how well employees actually perform their sales tax compliance responsibilities. ITC serves as the theoretical bridge between capability and behaviour by linking the development logic of HCT with TPB's behavioural logic.

H4: Intention to Comply mediates the relationship between TEC and Employees' Sales Tax Compliance Behaviour.

3. Proposed research framework

This study presents a conceptual framework that integrates HCT (Becker, 1964) and TPB (Ajzen, 1991, 2020) at complementary explanatory levels. From a developmental perspective, HCT explains how learning opportunities create knowledge and capabilities at the individual level. Organisational investment

in education and learning represents opportunity structures within which employees can develop job-relevant knowledge and capabilities. In HCT terms, organisational learning and training comprise the developmental context of this study, while TEC constitutes the resulting domain-specific capability as it is perceived by employees. From a behavioural perspective, TPB explains how perceptions of capability are associated with behavioural intention and behaviour (Ajzen, 2020). The integration thus relates an organisational-level developmental context (i.e., antecedents) to an individual-level behavioural mechanism. Organisational learning serves as the context for capability development; TEC represents employees' capability, ITC represents the behavioural mechanism, and ESTCB represents employees' behavioural enactment or compliance behaviour at work.

TPB holds that attitude, subjective norm, and PBC are antecedents of behavioural intention. The present study, however, does not aim to test TPB in its entirety. TPB is used here in a piecemeal fashion to explain the theoretically justified capability-intention-behaviour pathway relevant to integration with HCT. Accordingly, attitude and subjective norm are not central to this study's conceptual integration and are, therefore, outside the scope of the proposed framework. The present study does not suggest that attitudes toward compliance or normative pressure are unimportant to tax compliance behaviour; instead, this study simply focuses on the single pathway that arises from learning and capability development. Researchers may build on this work to develop an even more comprehensive framework by incorporating attitude and subjective norm to examine their unique explanatory value.

Conceptually informed by this theoretical integration, TEC is an employee capability that is specific to the sales tax domain and developed through organisational tax training and learning. TEC is related to, but not equivalent to PBC in TPB. Whereas PBC is a broad perception of one's capability to perform a given behaviour, TEC captures employees' perceived knowledge, competence, confidence, and ability to perform the specific task of complying with sales tax requirements. Thus, this study's framework proposes that TEC is positively associated with ITC and Employees' Sales Tax Compliance Behaviour, and that ITC mediates the relationship between TEC and Employees' Sales Tax Compliance Behaviour. **Figure 1** depicts this study's conceptual framework.

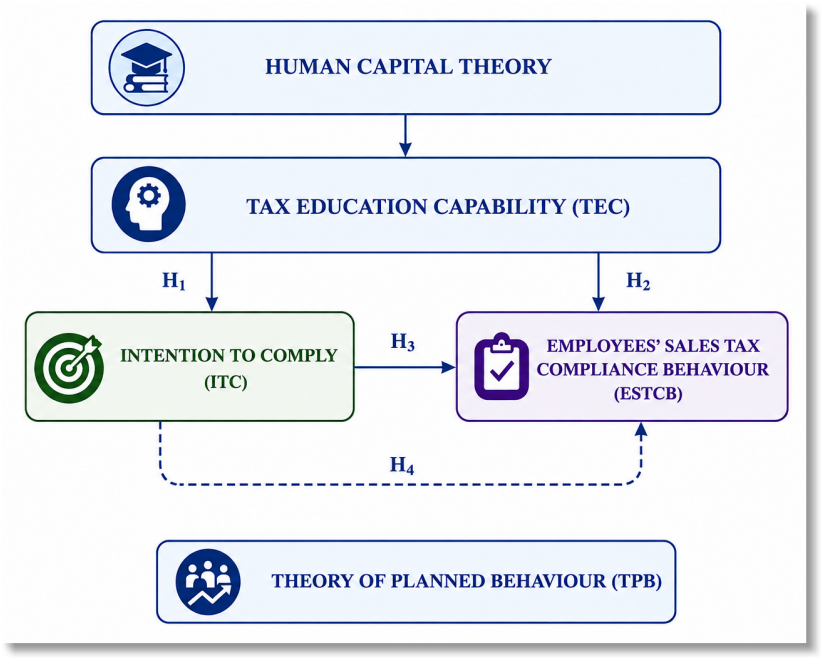


Figure 1 Proposed conceptual framework

4. Methodology

This study used a quantitative cross-sectional survey design. A cross-sectional survey design was chosen because the study aimed to examine the relationship between TEC and ESTCB via ITC at a single point in time. However, a cross-sectional design does not permit causal inference or the examination of changes in behaviour over time. Thus, future research may opt to use a longitudinal survey design.

The population for this study included employees responsible for the sales tax compliance function in manufacturing organisations registered under the Malaysian Sales Tax Act 2018. The sampling frame was generated using lists obtained from publicly available lists published by the RMCD and the Federation of Malaysian Manufacturers (FMM). Data were collected in Selangor, Johor, Pulau Pinang, Kuala Lumpur, and KLIA, as these five states accounted for about 79.2% of sales tax registrants in Malaysia in 2025 (RMCD, 2025). Purposive sampling was used to identify employees directly or indirectly responsible for their organisation's sales tax compliance function. Employees in roles including tax manager, finance manager, accountant, tax executive, and finance executive were invited to participate in the study if they were involved in their organisation's sales tax function. Purposive sampling was chosen because the study required respondents with relevant workplace knowledge and direct or indirect responsibilities for their organisation's sales tax compliance. Employees not involved in sales tax compliance would not have a frame of reference to assess their capability, behavioural intention, and compliance behaviours as examined in this study.

The sampling procedure focused on maximising relevant respondents and involvement in the sales tax function rather than a general population in the manufacturing sector. However, there is a risk of selection bias, given that the sampling was purposive. The results should be generalised beyond the population and context only with caution. Incomplete questionnaires were excluded during data screening, and the final sample size was sufficient to meet the minimum sample size requirement for PLS-SEM analysis (Hair et al., 2022).

Data collection was conducted from January to June 2026 via an electronic survey sent to eligible employees working on sales tax-related tasks. Eligible

employees were identified and invited to participate through organisational and professional channels. No participation incentives were provided, and no formal organisational gatekeepers were used in recruiting respondents. Reminder emails were sent to encourage participation. Purposive sampling enabled the survey to reach relevant employees for the study and may account for the high response rate. Questionnaires were sent to 500 eligible employees, and 450 were returned and screened for eligibility and completeness. Respondents identified themselves by providing their affiliated email addresses when submitting the questionnaire. Email addresses were used only as administrative identifiers to screen for duplicate respondents (i.e., multiple responses submitted by the same respondent) and were not included in the statistical analysis. Only one response from the organisational email address was deemed eligible and retained.

This study's measurement items were adapted from prior scales to measure employee training and human capital, TPB, tax knowledge, and organisational tax compliance. They were reworded to suit employees' roles under the Malaysian Sales Tax Act 2018. The measurement items were adapted to ensure the wording was relevant to employees performing sales tax compliance functions while preserving the original measures' meaning. The measurement instrument was reviewed by academic professionals specialising in taxation and tax practitioners for content and face validity. This was followed by a pilot test involving 55 respondents. The wording of some items was adjusted to improve clarity following pilot testing. The measurement instrument, including the constructs measured, number of items, representative items, adaptation sources, and theoretical foundations, is presented in **Appendix A**.

Measurement model reflective measurement models were used to measure all constructs using a seven-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. Tax Education Capability (TEC) was measured as an employee-level, domain-specific perceived capability that develops from tax-related education, training, and learning. Following Human Capital Theory (HCT), organisational tax training and learning opportunities provide the developmental context in which employees build and improve relevant tax knowledge and competence. TEC was operationalised as an employee-level, domain-specific perceived capability reflecting employees' tax-related knowledge, competence, confidence and task-related ability to perform sales tax compliance tasks. In line with HCT, organisational tax education/training opportunities provide a developmental context through which individuals can develop and enhance relevant tax knowledge and competence. As such, organisational training provision was conceptually distinguished from employee capability itself and was not included in the final measurement specification as a reflective indicator of TEC.

The measurement instrument is provided in **Appendix A**. Eight items were retained to measure TEC, seven items to measure ITC, and six items to measure Employees' Sales Tax Compliance Behaviour (ESTCB). The measurement items were adapted from existing theoretical and empirical literature and contextualised to employees' sales tax compliance responsibilities.

IBM SPSS Statistics and WarpPLS 8.0 were employed to analyse the dataset. IBM SPSS Statistics was used to screen the data, analyse respondent demographics, and compute descriptive statistics, whereas WarpPLS 8.0 was employed to estimate measurement and structural models using the PLS-SEM approach because it is ideal for prediction-oriented studies, theory-extending research, and hypothesis testing with mediation analysis using latent constructs (Hair et al., 2022). Internal consistency reliability, convergent and discriminant validities of the measurement model were assessed using indicator loadings, Cronbach's alpha (CA), Composite Reliability (CR), Average Variance

Extracted (AVE), Variance Inflation Factor (VIF), Average Variance Inflation Factor (AVIF), Average Full Collinearity Variance Inflation Factor (AFVIF), Heterotrait-Monotrait ratio of correlations (HTMT) and Fornell-Larcker criterion. The structural model was evaluated using path coefficients (β), coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and WarpPLS model fit indices, including Average Path Coefficient (APC), Average R-squared (ARS), Average Adjusted R-squared (AARS), Tenenhaus Goodness-of-Fit (GoF), Simpson's Paradox Ratio (SPR), R-squared Contribution Ratio (RSCR), Statistical Suppression Ratio (SSR), Nonlinear Bivariate Causality Direction Ratio (NLBCDR). Bootstrapping was employed to assess statistical significance using 999 resamples. Following Kock (2025), WarpPLS automatically calculates the p-values for indirect effects via resampling with the selected method and presents the corresponding standard errors. 95% confidence intervals were used to assess the statistical significance of the structural and indirect effects. Ethics approval was obtained from the Research Ethics Committee, Universiti Teknologi MARA REC/06/2026 (PG/MR/334), and respondents had given their consent before participating in the study.

5. Results

5.1. Sample characteristics and data screening

The questionnaire was sent via electronic distribution directly and through organisational and professional networks to employees performing sales tax compliance tasks. Reminders were issued during the data-collection window to encourage completion of the questionnaire. Distributing the questionnaire directly to employees responsible for sales tax compliance allowed access to respondents for whom the target behaviour was salient. A 90.0% response rate was recorded out of 500 questionnaires. Four hundred and fifty questionnaires were returned completed, 50 questionnaires were removed from the sample due to incomplete responses or other issues, leaving 400 total relevant responses (80.0% of questionnaires distributed; 88.9% of questionnaires returned). As affiliation was not retained as an analytical identifier, it could not be determined whether multiple respondents were employed by the same organisation. Consequently, respondents within the same affiliation could not be assessed, which is acknowledged as a limitation of the sampling design. Demographic characteristics of the respondents are presented in **Table 1**.

Table 1. Demographic profile of respondents (N = 400)

Characteristics	Frequency	Percentage (%)
Age		
21–30 years old	76	19.0
31–50 years old	316	79.0
51 years old and above	8	2.0
Position		
Executive	106	26.5
Senior Executive	134	33.5
Manager / Head of Department	122	30.5
C-Suite / Owner	38	9.5
Business Location (HQ)		
Selangor	168	42.0
Johor	88	22.0
Kuala Lumpur	82	20.5
Penang	56	14.0

Continued table:

Characteristics	Frequency	Percentage (%)
KLIA	6	1.5

5.2. Measurement model assessment

Model fit, common method bias, indicator reliability, internal consistency reliability, convergent validity, and discriminant validity were evaluated to assess the measurement model.

The final model fit and quality statistics were acceptable (**Table 2**) as APC (0.537, $p < 0.001$), ARS (0.607, $p < 0.001$), and AARS (0.606, $p < 0.001$) were significant, indicating adequate model fit. AVIF (2.220) and AFVIF (2.692) were below the critical value of 3.3, indicating the absence of unacceptable construct-level collinearity. These statistics were diagnostic and thus were not expected to demonstrate the absence of common method bias, since all the major constructs were measured using self-reported data from the same respondents. Finally, GoF (0.650) exceeded the recommended cutoff of 0.36, indicating a large overall model fit. All other model quality indices surpassed their recommended thresholds (SPR $= 1.000$, RSCR $= 1.000$, SSR $= 1.000$, and NLBCDR $= 1.000$).

Table 2. Model fit and quality indices

Model Fit Index	Value	Recommended Value	Assessment
Average Path Coefficient (APC)	0.537	$p < 0.001$	Supported
Average R-squared (ARS)	0.607	$p < 0.001$	Supported
Average Adjusted R-squared (AARS)	0.606	$p < 0.001$	Supported
Average Block VIF (AVIF)	2.220	≤ 5.0 (Ideally ≤ 3.3)	Acceptable
Average Full Collinearity VIF (AFVIF)	2.692	≤ 5.0 (Ideally ≤ 3.3)	Acceptable
Tenenhaus Goodness-of-Fit (GoF)	0.650	> 0.36	Large
Simpson's Paradox Ratio (SPR)	1.000	≥ 0.70	Ideal
R-squared Contribution Ratio (RSCR)	1.000	≥ 0.90	Ideal
Statistical Suppression Ratio (SSR)	1.000	≥ 0.70	Ideal
Nonlinear Bivariate Causality Direction Ratio (NLBCDR)	1.000	≥ 0.70	Ideal

The reliability and convergent validity of the constructs were subsequently assessed. As shown in **Table 3**, all reflective indicators loaded significantly on their respective constructs ($p < 0.001$), with loadings ranging from 0.667 to 0.912, above the recommended value of 0.60. Indicator loadings for TEC ranged from 0.667 to 0.895. Although TEC7 (0.667) and TEC9 (0.684) had relatively low loadings, both were above the minimum threshold and were therefore retained to maintain the conceptual coverage of the employee capability construct. At the construct level, TEC exhibited acceptable internal consistency and convergent validity (Cronbach's $\alpha = 0.918$, CR $= 0.934$, AVE $= 0.641$).

Table 3. Measurement model assessment: indicator reliability, internal consistency reliability, and convergent validity

Construct	Item	Loading	CA	CR	AVE
	TEC2	0.823			
	TEC3	0.895			
	TEC4	0.890			
Tax Education Capability (TEC)			0.918	0.934	0.641

Continued table:

Construct	Item	Loading	CA	CR	AVE
	TEC5	0.846			
	TEC6	0.842			
	TEC7	0.667			
	TEC8	0.720			
	TEC9	0.684			
	ITC1	0.793			
	ITC2	0.881			
	ITC3	0.912			
Intention to Comply (ITC)	ITC4	0.903	0.949	0.958	0.766
	ITC5	0.847			
	ITC6	0.909			
	ITC7	0.876			
	ESTCB1	0.854			
	ESTCB2	0.884			
Employees' Sales Tax Compliance Behaviour(ESTCB)	ESTCB3	0.860	0.907	0.928	0.685
	ESTCB4	0.746			
	ESTCB5	0.826			
	ESTCB6	0.785			

Support for the internal consistency reliability of the constructs was also provided, as Cronbach's α values (ranging from 0.907 to 0.949) and CR values (ranging from 0.928 to 0.958) exceeded the recommended threshold value of 0.70. Similarly, all AVE values (ranging from 0.641 to 0.766) exceeded the recommended minimum threshold of 0.50, thus supporting adequate convergent validity. Overall, these results indicate that all constructs have satisfactory reliability and convergent validity.

Subsequently, the discriminant validity of the latent constructs was analysed with the Fornell–Larcker criterion and the HTMT ratio. As shown in **Table 4**, the square roots of the AVEs exceeded the correlations between latent constructs, indicating discriminant validity according to the Fornell–Larcker criterion. Moreover, all HTMT values (TEC–ITC = 0.755; TEC–ESTCB = 0.765; ITC–ESTCB = 0.834) fell below the recommended conservative threshold value of 0.85 (**Table 5**), supporting discriminant validity as well. Taken together, the measurement model satisfied all reliability and validity criteria.

Table 4. Discriminant validity assessment using the Fornell–Larcker criterion

Construct	TEC	ITC	ESTCB
TEC	0.800		
ITC	0.717	0.875	
ESTCB	0.700	0.777	0.827

Table 5. Discriminant validity assessment using the Heterotrait–Monotrait ratio (HTMT)

Constructs	HTMT	Decision
TEC –ITC	0.755	Accepted
TEC –ESTCB	0.765	Accepted

Continued table:

Constructs	HTMT	Decision
ITC –ESTCB	0.834	Accepted

5.3. Structural model assessment

As the appropriateness of the measurement model was established, we proceeded with testing the structural model by examining the hypothesised relationships between the study constructs. As shown in **Table 6**, TEC had a positive and significant relationship with ITC ($\beta = 0.731$, $p < 0.001$), supporting H1. In addition, TEC was positively and significantly related to ESTCB ($\beta = 0.346$, $p < 0.001$), thereby supporting H2. Finally, ITC was found to have a positive and significant relationship with ESTCB ($\beta = 0.534$, $p < 0.001$), supporting H3. The associated effect sizes showed that the relationship between TEC and ITC had a large effect size ($f^2 = 0.535$) while the effect of ITC on ESTCB was large ($f^2 = 0.422$). The direct relationship between TEC and ESTCB also demonstrated a moderate effect size ($f^2 = 0.257$).

Table 6. Structural model assessment and hypothesis testing

Hypothesis	Structural Path	β	f^2	95% CI	p-value	Decision
H1	TEC → ITC	0.731	0.535	[0.656, 0.807]	< 0.001	Supported
H2	TEC → ESTCB	0.346	0.257	[0.212, 0.481]	< 0.001	Supported
H3	ITC → ESTCB	0.534	0.422	[0.405, 0.663]	< 0.001	Supported

Note: 95% confidence intervals were obtained using bootstrapping with 999 resamples.

Table 7 presents the coefficient of determination (R^2) values used to assess the model's explanatory power. TEC accounted for 53.5% ($R^2 = 0.535$) of the variance in ITC, while TEC and ITC together accounted for 67.9% ($R^2 = 0.679$) of the variance in ESTCB. These values suggest that the model had moderate to substantial explanatory power. Furthermore, the Q^2 values for ITC ($Q^2 = 0.535$) and ESTCB ($Q^2 = 0.680$) were above zero, indicating predictive relevance for both endogenous constructs, with a higher Q^2 value for ESTCB. This suggests that the ESTCB had a greater predictive relevance within the current sample and research context. Bootstrapping with 999 resamples was employed to determine the statistical significance of structural relationships. The 95% bootstrap confidence intervals for all three structural paths did not contain zero, which further supports H1–H3.

Table 7. Coefficient of determination (R^2), adjusted R^2 and predictive relevance (Q^2)

Endogenous Construct	R^2	Adjusted R^2	Q^2
Intention to Comply (ITC)	0.535	0.534	0.535
Employees'Sales Tax Compliance Behaviour (ESTCB)	0.679	0.677	0.680

5.4. Mediation analysis

Results further indicated that ITC statistically mediated the effect of TEC on ESTCB, thereby supporting H4. As shown in **Table 8,** The indirect effect estimate was statistically significant ($\beta = 0.390$, bootstrap SE $= 0.051$, $p < 0.001$) using 999 bootstrap resamples. Based on the indirect-effect estimate (0.390) and its associated resampling standard error (0.051), the corresponding normal-approximation 95% confidence interval ranged from [0.290, 0.490]. Zero

was not contained within the confidence interval, hence the indirect effect was considered statistically significant. As both the indirect and direct relationships between TEC and ESTCB ($\beta = 0.346$, $p < 0.001$) were statistically significant, partial mediation was indicated. The indirect effect accounted for approximately 52.9% of the total effect ($\beta = 0.737$), indicating the substantive importance of ITC in the proposed model. However, given the cross-sectional design, the mediation should be interpreted as evidence of an indirect statistical relationship rather than as causal or temporal mediation.

Table 8. Mediation analysis results

Hypothesis	Indirect Relationship	β	Bootstrap SE	95% CI	p-value	Mediation Type	Decision
H4	TEC → ITC → ESTCB	0.390	0.051	[0.290, 0.490]	< 0.001	Partial statistical mediation	Supported

Note. The indirect-effect coefficient, p-value, and standard error were estimated using bootstrapping with 999 resamples in WarpPLS 8.0. The 95% confidence interval represents a normal-approximation interval derived from the indirect-effect estimate and bootstrap standard error, following Kock (2016).

6. Discussion

6.1. Tax education capability (TEC) and intention to comply (ITC)

The results indicate a strong positive relationship between TEC and ITC ($\beta = 0.731$, $p < 0.001$), supporting H1. The effect size ($f^2 = 0.535$) is large, indicating that TEC is strongly associated with employees' intention to perform their sales tax compliance duties. From an HRM standpoint, this finding implies that employees who perceive themselves as possessing higher tax-related knowledge, competence, confidence, and task-related capability will also have stronger intentions to comply. It could be that domain-specific capability lowers employees' perceived effort associated with performing regulatory duties and affords them greater confidence in their ability to complete compliance-related tasks.

The finding supports TPB's association between perceived capability and behavioural intention, and aligns with prior tax compliance research that reports relationships between employee capability-related factors and intention to comply (Owusu et al., 2021; Hayat et al., 2022; Garg et al., 2024). However, this study goes beyond previous reasoning by assessing capability via TEC rather than tax knowledge alone or perceived control. Through an HCT lens, TEC represents a form of domain-specific employee capability that can be developed within an organisation's learning and development efforts. Therefore, the identified TEC-intention relationship suggests that employee development may be salient to workplace compliance beyond technical expertise, as it relates to employees' willingness to perform regulatory tasks. This offers a connection between HCT's capability-development rationale and TPB's behavioural intention process.

6.2. Tax education capability (TEC) and employees' sales tax compliance behaviour (ESTCB)

TEC was found to have a significant positive association with ESTCB ($\beta = 0.346$, $p < 0.001$), supporting H2. From the HRM standpoint, employees who perceive themselves as having stronger tax-related knowledge, competence, confidence, and task- related capability also report stronger sales tax compliance behaviour. This may be because engaging in sales tax compliance requires employees to interpret regulatory requirements, make professional judgements, keep appropriate records, and put relevant requirements into practice as part of their day-to-day work activities. Employees who possess stronger domain-specific

capabilities may therefore be well-equipped to execute these specialist regulatory tasks. Consistent with HCT, this finding highlights the role of employee capability that may be developed within a learning and development context. This finding is consistent with prior studies showing that tax knowledge and PBC are related to compliance behaviour, although the current study investigates these relationships through the lens of TEC (Hassan et al., 2021; Hayat et al., 2022; Trifan et al., 2023). This is still relevant to HRM because workplace compliance may depend not only on employees' understanding of regulations but also on their perceived competence, confidence, and capability to utilise their knowledge when executing compliance-related responsibilities. As such, this study provides evidence that domain-specific employee capability is related to workplace regulatory behaviour.

6.3. Intention to comply (ITC) and employees' sales tax compliance behaviour (ESTCB)

Results indicate a significant positive relationship between ITC and ESTCB ($\beta = 0.534$, $p < 0.001$), supporting H3. The finding is aligned with TPB's designation of behavioural intention as an antecedent. In this case, employees who indicated a stronger intention to perform their sales tax compliance duties also reported stronger compliance. This may be because employees' capabilities are insufficient if they lack the intent to apply their knowledge and skills when undertaking compliance-related duties. Previous TPB-based tax compliance research has also identified a significant relationship between intention and compliance (Owusu et al., 2021; Garg et al., 2024; Lekjaeng & Sincharoonsak, 2025). Within an HRM framework, these findings further underscore the importance of considering employees' behavioural intention alongside their capabilities when understanding workplace regulatory behaviour. Even when employees have the knowledge and capability to perform regulatory task, their intention remains a distinct driver of compliance. This further supports the integration of HCT and TPB, which shows that employee capability and behavioural intention are related but distinct when it comes to workplace compliance behavior.

6.4. Mediation by intention to comply (ITC)

ITC partially mediated the relationship between TEC and ESTCB, supporting H4. The indirect relationship was significant ($\beta = 0.390$, 95% CI [0.290, 0.490], $p < 0.001$) and the direct relationship between TEC and ESTCB was also significant ($\beta = 0.346$, $p < 0.001$), suggesting that TEC is associated with compliance behaviour both indirectly and directly through ITC. In other words, employees' perceived capability as well as stronger intention contribute to compliance behaviour. As this was a cross-sectional study, this mediation should be interpreted as a demonstration of an indirect statistical relation, rather than a test of a causal or temporal mediation process.

This mediation bridges HCT and TPB within the context of workplace regulatory compliance. HCT served as the theoretical foundation for conceptualising learning and education as a developmental context for employees' capability within a particular regulatory domain. In contrast, TPB serves to position intention within the relationship between perceived capability and behaviour. The significant indirect relationship suggests that ITC serves as a statistical pathway linking TEC to ESTCB. Conceptually, this extends prior applications of both theories by linking employee capability with behavioural intention and reported compliance behaviour, rather than examining capability development and behavioural independently in explaining regulatory compliance.

6.5. Contributions to theory and practice in human resource management

Individually, each of these findings makes a modest contribution to linking HCT and TPB. Collectively, the findings establish an interrelationship between

employees' capability, intention, and behaviour in a regulatory context by bridging HCT and TPB. This study contributes to theory by positioning TEC as a domain-specific employee capability that links the organisational learning and development context with behavioural intention and compliance behaviour. Specifically, this finding extends the application of HCT by positioning learning and development as the developmental context for understanding employee capability, while examining how domain-specific perceived capability is associated with behavioural intention and compliance behaviour. Meanwhile, TPB specifies the behavioural pathway through which employee capability is associated with compliance behaviour. Integrating HCT and TPB therefore provides a complementary perspective for understanding how specialised human resource development in sales tax-related learning and development may build the capabilities of employees responsible for regulatory compliance, thereby extending its relevance to HRM.

Employees responsible for performing duties within regulated organisational functions are often required to acquire specialised knowledge and demonstrate competence to ensure that their work keeps pace with changing regulatory requirements. The capability–intention–behaviour pathway may serve as a theoretical foundation for understanding employee behaviour in different settings (i.e., occupations or departments) such as occupational safety, environmental compliance, financial reporting, data protection, and quality assurance. To what extent this capability–intention–behaviour pathway operates in other areas of regulatory compliance remains an empirical question for future research.

This study also highlights potential relevance for HRM practitioners. Organisations may consider developing employees' capability when designing and implementing learning initiatives. Rather than relying exclusively on technological controls to influence employee behaviour, organisational policymakers and managers may support regulatory compliance by developing employees' competence through professional learning relevant to their regulatory responsibilities. Training initiatives may focus on developing role-specific regulatory knowledge that accurately reflects employees' routine sales tax responsibilities, periodically evaluating employees' understanding of regulatory requirements and their task-related capability, and offering refresher learning when regulations or compliance processes change. Finally, the regulatory competency initiative may be included in development plans or performance-management discussions by incorporating reviews of employees' perceived regulatory knowledge, providing learning plans to develop capability, and giving feedback on employees' performance of compliance-related responsibilities. Other important organisational outcomes, such as compliance risk, governance, resilience, and long-term competitiveness, were not examined in this study and require further empirical research.

7. Conclusion, limitations, and future research

In sum, TEC is significantly associated with ITC and ESTCB, and ITC partially mediates the relationship between TEC and ESTCB. This study managed to link the organisational learning and development context with the behavioural pathway associated with employees' workplace compliance. The integration of HCT and TPB provides a complementary theoretical framework for explaining how employee capability development may be associated with compliance intention and behaviour.

Several limitations were identified in this study. First, using a cross-sectional research design precludes causal and temporal interpretations among the study's variables. Longitudinal research designs could further examine the temporal relationships among employee regulatory capability, intention, and behaviour.

Second, self-reported responses collected from the same participants were used to measure all three constructs. Although the full-collinearity diagnostics did not indicate problematic collinearity, these diagnostics do not rule out common method variance or social desirability bias arising from the use of self-reported measures collected from the same respondents. Future research might combine employee survey responses with other data sources, such as supervisor ratings, organisational records, or objective compliance outcomes. Third, organisational affiliation was not retained as an analytical identifier, so potential clustering arising from more than one eligible employee participating from the same organisation could not be accounted for in the analyses. Future research might include organisation-level identifiers or use analytical approaches that account for potential non-independence among respondents within organisations. Fourth, the sampling was limited to employees working for manufacturing organisations in Malaysia, hence, these results lack generalisability to other industries and regulatory contexts. Although purposive sampling suits this study, the nonprobability sampling method prevents statistical generalisation of these findings to the population. Future research could examine the proposed capability-intention-behaviour pathway across different industries and regulatory functions and extend the model by incorporating additional HRM factors, such as leader behaviours, organisational learning culture, employee engagement, digital competency, and performance management.

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Appendix A. Complete measurement instruments

Construct	Code	Measurement item	Operational content	Primary adaptation basis
Tax Education Capability	TEC2	I am confident in my capability to perform sales tax compliance responsibilities accurately.	Confidence/capability	Ajzen (2020)
	TEC3	I possess sufficient knowledge and competence to comply with sales tax requirements.	Knowledge/competence	Owusu et al. (2021); Hayat et al. (2022)
	TEC4	I am able to interpret sales tax compliance requirements relevant to my work responsibilities.	Interpretive capability	Becker (1964); Huang et al. (2024)
	TEC5	I have sufficient knowledge of sales tax requirements relevant to my work responsibilities.	Tax knowledge	Owusu et al. (2021); Hayat et al. (2022)
	TEC6	I have the competence required to perform sales tax compliance tasks effectively.	Competence	Becker (1964); Hayat et al. (2022)
	TEC7	I am confident in applying my sales tax knowledge when performing my work responsibilities.	Confidence/application	Ajzen (2020)
	TEC8	I am capable of handling the sales tax compliance requirements relevant to my job.	Task capability	Ajzen (2020); Hayat et al. (2022)
	TEC9	I can effectively apply my tax-related knowledge and skills when performing sales tax compliance responsibilities.	Applied capability	Becker (1964); Owusu et al. (2021)
Intention**to Comply**	ITC1	I intend to comply with sales tax requirements when performing my work responsibilities.	Compliance intention	Ajzen (1991, 2020)
	ITC2	I intend to ensure that sales tax requirements are properly followed in my work.	Compliance intention	Ajzen (1991, 2020)
	ITC3	I plan to perform my sales tax responsibilities in accordance with the applicable requirements.	Compliance plan	Ajzen (1991, 2020)
	ITC4	I am willing to make the necessary effort to comply with sales tax requirements.	Willingness/intention	Ajzen (1991, 2020)
	ITC5	I intend to maintain compliance with sales tax requirements when carrying out my responsibilities.	Continuing intention	Ajzen (1991, 2020)
	ITC6	I intend to perform my sales tax compliance duties accurately and in accordance with the required procedures.	Compliance intention	Ajzen (1991, 2020); Owusu et al. (2021)
	ITC7	I will make every effort to ensure that my sales tax responsibilities are carried out in compliance with the applicable requirements.	Effort/intention	Ajzen (1991, 2020); Garg et al. (2024)
Employees' Sales Tax Compliance Behaviour	ESTCB1	I perform my sales tax responsibilities in accordance with the applicable sales tax requirements.	Compliance behaviour	Alshira'h et al. (2021); Hassan et al. (2021)
	ESTCB2	I ensure that sales tax information relevant to my responsibilities is reported accurately.	Reporting accuracy	Hassan et al. (2021); Hayat et al. (2022)
	ESTCB3	I complete sales tax compliance tasks within the required time.	Timely compliance	Alshira'h et al. (2021); Hayat et al. (2022)
	ESTCB4	I follow the required sales tax procedures when performing my work responsibilities.	Procedural compliance	Hassan et al. (2021); Trifan et al. (2023)
	ESTCB5	I ensure that sales tax records and information under my responsibility are properly maintained.	Record-keeping compliance	Hayat et al. (2022); Adem et al. (2024)
	ESTCB6	I apply the applicable sales tax requirements when carrying out relevant transactions.	Application of requirements	Trifan et al. (2023); Adem et al. (2024)