

Tax Compliance Behavior Among Malaysian Taxpayers: A Dual-stage PLS-SEM and ANN Analysis

SAGE Open
 July-September 2022: 1–14
 © The Author(s) 2022
 DOI: 10.1177/21582440221127190
journals.sagepub.com/home/sgo


Naeem Hayat¹, Anas A. Salameh² , Abdullah Al Mamun³ ,
 Mohd Helmi Ali⁴, and Zafir Khan Mohamed Makhbul⁴

Abstract

The tax system provides the necessary financial resources to a country's administration to use the collected resources for the welfare of the general public and the development of general infrastructure. Therefore, compliance with the prevailing tax system is necessary for a country's political and administrative system to survive. The current study aims to explore the intention to comply and the compliance behavior toward the tax system among Malaysian taxpayers. The data were collected using the survey method, and quantitative data were analyzed using the dual-stage methods of partial least squares structural equation modeling (PLS-SEM) and artificial neural network (ANN). The analysis results showed that the perceived fairness of the tax system, tax penalties, and tax awareness were significantly related to the intention to comply with the tax rules and regulations. Furthermore, the intention to comply with the tax system significantly influenced tax compliance behavior. The ANN analysis confirms that tax awareness, tax penalties, and fairness perception are the three most important factors influencing tax compliance. The tax authorities need to build the taxpayers' confidence in the prevailing tax system and streamline the tax system to reduce tax complexity. Consequently, the taxpayers will start paying the correct and timely tax liabilities. The study's limitations and future research avenues are documented at the end of this paper.

Keywords

tax compliance, structural equation modeling, artificial neural network analysis, Malaysia

Introduction

A country's economic development and growth reflect the efficacy of the prevailing tax system in that country (Noor Azmi et al., 2020). Active taxpayers complying with the prevailing tax regulations bring the necessary monetary resources needed to pursue the development and redistribution of resources collected by the tax authorities (Ghani et al., 2020). On the other hand, non-compliance with the tax system is common around the globe (Evans & Tran-Nam, 2014). Individuals are reluctant to comply with the tax rules and regulations, which has established barriers to an effective tax system (Brockmann et al., 2016).

The primary purpose of a tax system is to generate revenue for the government to perform administrative activities (Palil & Mustapha, 2011). Thus, the tax revenue system helps generate financial resources to develop the economic conditions and redistribute the resources from the rich to the poor (Ghani et al., 2020). Nevertheless, most prospective and existing taxpayers are avoiding tax payments in one way or another (Loo, 2016). Therefore, tax authorities need to raise the tax rates or impose multiple tax types to increase the government revenue (Rahmayanti

et al., 2020). Taxpayers' compliance with the tax rules and procedures is vital for the progress of a nation and the government's effort to provide social support to the poor of the country (Musimenta, 2020).

The Malaysian tax administration replaced the official self-assessment system (SAS) with the self-assessment system (SAS) in 2001 (Remali et al., 2018). SAS was a significant reform since the enforcement of the Income Tax Act

¹Global Entrepreneurship Research and Innovation Centre, Universiti Malaysia Kelantan, Kota Bharu, Malaysia

²College of Business Administration, Prince Sattam Bin Abdulaziz University, Al-Kharj, Saudi Arabia

³UCSI University, Kuala Lumpur, Malaysia

⁴UKM - Graduate School of Business, Universiti Kebangsaan Malaysia, UKM Bangi, Selangor Darul Ehsan, Malaysia

*Abdullah Al Mamun is now affiliated to UKM – Graduate School of Business, Universiti Kebangsaan Malaysia, UKM Bangi, Selangor Darul Ehsan, Malaysia

Corresponding Author:

Abdullah Al Mamun, UKM – Graduate School of Business, Universiti Kebangsaan Malaysia, 43600, UKM Bangi, Selangor Darul Ehsan, Malaysia.
 Emails: almamun@ukm.edu.my; mamun7793@gmail.com



Creative Commons CC BY: This article is distributed under the terms of the Creative Commons Attribution 4.0 License (<https://creativecommons.org/licenses/by/4.0/>) which permits any use, reproduction and distribution of

the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

(ITA) 1967. Tax complexity has reduced with the introduction of SAS (Palil & Mustapha, 2011). The SAS facilitates the taxpayers, and fewer supporting documents are required to establish the taxpayers' income.

Non-compliance with the tax system is the biggest obstacle to the effectiveness and success of the tax collection capacity of the tax system (Remali et al., 2018). The non-compliance with the tax system leads to the imposition of tax penalties and tax audit fees to the taxpayers (Ghani et al., 2020). Nonetheless, the non-compliance with the tax system increases over time as taxpayers use every opportunity to pay lower taxes (Saad, 2012). Non-compliance with tax legislation refers to behavior that fails to comply with the requirements the tax authorities have stipulated (Richardson, 2006). Non-compliance with the tax system has significant consequences for tax collection and efficiency (Hamid et al., 2022). There were two million active taxpayers in Malaysia, with about 80,000 prospective taxpayers who needed registration, while the Malaysian tax authorities lost approximately RM 2,000 million of tax collection in 2019 (Noor Azmi et al., 2020).

The Malaysian tax authorities are making attempts to improve compliance with the tax system and encourage Malaysian taxpayers to pay the entire tax liability to achieve the growth of Malaysia (Sapiei et al., 2014). Certain individuals make every effort to evade the tax liability or understate the income earned in a tax year (Youde & Lim, 2019). Human behavior plays a significant role in the compliance and avoidance behavior toward tax systems internationally and specifically in Malaysia (Rashid et al., 2021). A tax payer's decision to engage or evade the tax payment is complex and requires multiple perspectives to explore the tax compliance behavior (Coita et al., 2021). Tax avoidance is described as the taxpayer's behavior to reduce tax obligation using the rules and regulations of the prevailing tax system (Zandi et al., 2016). Non-compliance with the tax system is a global phenomenon and shows the lack of robustness of the prevailing tax system in a country (Jaffar et al., 2021; Remali et al., 2018).

In this context, it is necessary to explore the taxpayers' intention to comply and the compliance behavior toward the tax system in Malaysia with regard to the taxpayers' perception of the tax system attributes. The current study aims to explicate the influence of tax awareness, morals, complexity, penalties, and tax fairness on the intention to comply with the tax system. The intention to comply with the tax system instigates the tax compliance behavior. To explain tax compliance intention and behavior, the current study first used a dual analytical technique based on PLS-SEM and ANN analysis. The study adds to the body of knowledge by explaining tax system attributes and deterrence toward the tax system, thereby influencing tax compliance intention and later compliance behavior. The current work provides empirical evidence for the implication of deterrence and the framework explains tax compliance behavior.

The following section offers a detailed discussion about the relevant literature and the hypotheses development. Next, the research methodology adopted in the current research is described, followed by the data analysis and discussion sections. Finally, this paper ends with the conclusion section.

Literature Review

Theoretical Foundation

Tax compliance is necessary for the development of both rich and emerging countries. However, tax non-compliance is motivated by the desire to reduce the tax liabilities of an individual or a firm (Noor Azmi et al., 2020). Tax compliance represents the degree to which a taxpayer complies with the prevailing tax rules and regulations (Youde & Lim, 2019). Deterrence theory is utilized as the central theoretical framework to depict tax compliance (Taofeeq, 2018). The deterrence approach suggests that taxpayers make a cost-benefit analysis to decide their tax compliance behavior. Tax penalties and tax sanctions determine individual tax compliance and the implementation of tax laws and tax sanction levels (Devos, 2007). Tax compliance is a deterrence based on tax awareness, tax penalties, tax audits, and tax rates. Paying tax liabilities based on deterrence outperforms avoiding tax audits, penalties, or compliance due to fear (Noor Azmi et al., 2020).

On the other hand, the attribution theory is defined as finding what motivates or restricts a person from taking action (Kamil, 2015). Attributes are the causes that influence human behavior, and individuals use these factors to explain their actions. Internal and external factors surrounding the taxpayer influence their tax compliance behavior. The tax system's attributes facilitate and suggest the importance of promptly taxing the liabilities fully to support the country's development. Nevertheless, specific tax system attributes undermine the tax system's positive attitude, and individuals do not pay taxes on time or pay the total amount. Perceived factors of tax compliance are tax awareness, tax morale, and tax fairness perception, while the external factors are tax penalties and tax complexity.

Hypotheses Development

Fairness perception. Perception of fairness relates to the provision of justice, equality, and impartiality toward any system. It defines taxpayers' feelings toward the tax system's imposition of fair tax liabilities according to the taxpayers' abilities (Azmi et al., 2016). The fairness perception in the tax system depicts that the tax system has justice and impartial rules and procedures that offer a sense of equality and reduce the misconception that decreases compliance behavior (Richardson, 2006). The perception of tax fairness is described at the horizontal and vertical levels. Horizontal fairness relates to taxpayers and perceives that all taxpayers

with the same economic conditions need to pay the same tax (Saad, 2012).

Meanwhile, vertical fairness is described as the perception among the taxpayers having different economic needs to pay accordingly. Azmi et al. (2016) have postulated that the perception of fairness leads to the intention to comply with the tax system. Therefore, in the current study, the following hypothesis is proposed:

Hypothesis (H₁): *Tax fairness perception is positively related to the intention to comply with the tax system among individual taxpayers in Malaysia.*

Tax penalty. Paying tax on time is the personal duty of every taxpayer. A tax penalty is a punishment for not complying with the implemented tax rules and regulations (Saad, 2012). It is a disciplinary measure to impose a monetary or non-monetary fee for non-compliance exhibited by an individual (Taofeeq, 2018). Tax penalty promotes the attitude to comply with implemented tax laws and procedures for tax collection (Brockmann et al., 2016). Tax compliance can involve administering the tax laws and dealing with violations (Rahmayanti et al., 2020). Tax penalty promotes tax awareness and harnesses tax compliance forcefully (Palil & Mustapha, 2011). Furthermore, the tax penalty acts as an attribute of the tax system to consider the enforcement of the tax system and the likelihood that non-compliance may result in a penalty to tackle tax evasion in a monetary aspect or via imprisonment (Kamil, 2015). Thus, this hypothesis is proposed:

Hypothesis (H₂): *Tax penalty is positively related to the intention to comply with the tax system among individual taxpayers in Malaysia.*

Tax morale. Confidence in the tax system harnesses the intention to comply with the tax system. Tax morale signifies the tax system's attitude whereby tax morale is described as the intrinsic motivation to promptly pay tax (Alasfour et al., 2016). Moreover, tax morale fulfills the civic duty to pay the right amount of tax on time since paying tax is a national duty. The collected tax is utilized for the development of society (Youde & Lim, 2019). Thus, tax morale depicts the individual's tax compliance motive and understanding that the tax framework is an acceptable norm of collecting money utilized for public welfare (Luttmer & Singhal, 2014). Ghani et al. (2020) postulated that tax morale significantly impacted the intention to comply with the tax system. Hence, the following hypothesis is proposed in this study:

Hypothesis (H₃): *Tax morale is positively related to the intention to comply with the tax system among individual taxpayers in Malaysia.*

Tax awareness. Tax awareness depicts an individual's understanding of the importance of the tax system (Youde &

Lim, 2019). Individual-level tax awareness shows the recognition of tax mechanisms and prevailing tax laws (Taofeeq, 2018). Tax awareness indicates the importance of the tax system for public welfare (Savitri & Musfialdy, 2016). A thorough understanding of tax awareness suggests a possible link with tax compliance (Zandi et al., 2016). Tax awareness makes the taxpayers conscious of paying taxes and promotes public wellbeing (Rahmayanti et al., 2020). As such, this study proposes the following hypothesis:

Hypothesis (H₄): *Tax awareness is positively related to the intention to comply with the tax system among individual taxpayers in Malaysia.*

Tax complexity. Tax complexity represents the perception of difficulty or strain at the taxpayers' end (Coita & Mare, 2021). The associated tax complexity was acknowledged at the tax instrument and tax laws levels (Taofeeq, 2018). Tax complexity directs the difficulty perceived by the taxpayers toward the tax system that encourages tax non-compliance (Kamil, 2015). Besides, tax complexity shows the non-understanding of the tax rules and procedures that leads to tax non-compliance (Ghani et al., 2020). Hence, the following hypothesis is proposed in this study:

Hypothesis (H₅): *Tax complexity is negatively related to the intention to comply with the tax system among individual taxpayers in Malaysia.*

Intention to comply with the tax system and tax compliance

The intention to behave in a particular manner significantly represents the behavior. Tax compliance is the taxpayers' decision to comply with the prevailing tax laws and regulations to pay tax accurately and on time (Swee Kiow et al., 2021). The intention to comply with the tax rules instigates compliance behavior (Rahmayanti et al., 2020). Therefore, the following hypothesis is proposed in this current study:

Hypothesis (H₆): *Intention to comply with the tax system positively influences tax compliance among individual taxpayers in Malaysia.*

Research Methodology

Research Design

In the current study, a cross-sectional and quantitative approach were employed to explain the influence of the factors impacting the intention to comply and the compliance behavior among Malaysian taxpayers. In this explanatory study, data were collected in a cross-sectional fashion. The causal-predict data analysis technique, partial least squares structural equation modeling (PLS-SEM), and artificial neural network (ANN), were utilized for the hypothesis testing.

Table 1. Latent Constructs Correlation.

	Tax awareness	Tax moral	Tax complexity	Tax penalty	Fairness perception	Intention to comply	Tax compliance
Tax awareness	1						
Tax moral	.506	1					
Tax complexity	.225	.449	1				
Tax penalty	.482	.414	.497	1			
Fairness perception	.512	.638	.407	.516	1		
Intention to comply	.644	.400	.291	.631	.534	1	
Tax compliance	.668	.435	.293	.626	.0552	.0781	1

Source. Author's data analysis.

Population and Sample

The target population of the current study was the Malaysian taxpayers. The sample size calculation was performed with G-Power 3.1 with a power of 0.95 and an effect size of 0.15 with seven predictors. The required sample size was 84 (Faul et al., 2007). However, a minimum of 200 samples is suggested for PLS-SEM (Hair et al., 2019). Hence, this study employed the second-generation statistical analysis technique of structural equation modeling, whereby data from 500 respondents were collected.

Survey Instrument

The survey instrument used in this study was a structured questionnaire. All the question items were taken from earlier studies with minor modifications. To gauge tax morale, five items were taken from Alasfour et al. (2016), while for fairness perception, the questions were adapted from the work of Taofeeq (2018). Next, tax awareness was estimated with six question items taken from Noor Azmi et al. (2020), whereas tax complexity was assessed with five items from Sapiei et al. (2014) and Saad (2012). Lastly, the tax penalty was estimated using five items from Loo (2016). In this study, a five-point Likert scale (not important, slightly not important, neutral, slightly important, and very important) was used to measure the variables.

Common Method Bias (CMB)

Cross-sectional studies are commonly associated with common method bias; CMB was assessed using multiple methodological and statistical tools (Podsakoff et al., 2012). The current study applied Harman's one-factor test to determine CMB's effect as a diagnostic technique. The single factor accounted for 25.9%, which was below the recommended threshold of 40.0% in Harman's one-factor test, thus, confirming the inconsequential influence of CMB on this study (Podsakoff et al., 2012). Latent factors correlation also showed no issue of CMB among the study constructs, whereby the correlation among the latent constructs was less

than .90 (Podsakoff et al., 2012). The results are listed in Table 1.

Multivariate Normality

Hair et al. (2019) have suggested evaluating the multivariate data normality before using SmartPLS. Therefore, multivariate normality for the study data was assessed with the Web Power online tool (source: <https://webpower.psychstat.org/wiki/tools/index>). The calculated Mardia's multivariate p -value revealed that the study data had a non-normality issue because the p -values were below 0.05 (Cain et al., 2017).

Data Analysis Method

Partial Least Squares Structural Equation Modeling (PLS-SEM). Due to the existence of multivariate non-normality in the dataset, this study used PLS-SEM. Hair et al. (2019) have recommended adopting variance-based structural equation modeling to analyze the exploratory nature and non-normality issues in-depth in the structural equation model's dependent constructs. The Smart-PLS 3.1 programme was employed to analyze the data collected in the current study. PLS-SEM is a multivariate exploratory method for analyzing integrated latent constructs' paths (Hair et al., 2019). It empowers researchers to work well with non-normal data when they have a small dataset. Furthermore, PLS-SEM is a casual-predictive analytical tool to execute complex models with composites and has no specific assumption of the goodness-of-fit static requirements (Chin, 2010). PLS-SEM analysis is performed in two phases. The first step deals with model estimation, where the constructs' reliability and validity are evaluated (Hair et al., 2019). Phase two deals with evaluating the correlations of the models and the systematic testing of the study path model (Chin, 2010). The analysis performed with r^2 , Q^2 , and effect size f^2 can explain the endogenous construct's change caused by the exogenous constructs (Hair et al., 2019).

Artificial Neural Network (ANN) Analysis. ANN analysis is a non-compensatory analytical approach built on three levels,

namely the input, output, and hidden layers (Gbongli et al., 2019). The hidden layer links the input and output neurons. Besides, the hidden layer functions like the human brain's block-box (Hayat et al., 2020). The data is divided into three sections: training, testing, and hold-out sample. The predictive score is determined using the training and tested data's root mean square errors (RMSE) (Gbongli et al., 2019). The more significant the gap between the RSME scores of training and tested data, the greater the predictive accuracy (Hayat et al., 2021). A sensitivity analysis was executed to determine the relative impact of each exogenous component. The normalized relevance of each exogenous component indicates the effect on the endogenous structure (Leong et al., 2020). Following that, the average synaptic weights aided in understanding the contribution of the input and hidden layers on the output (Hayat et al., 2020).

Data Analysis

Demographic Profile

48.4% were men, and 51.6% were women among the study respondents. Next, 60.9% of the study respondents were single, while 36.4% were married, 2.0% were divorced, and the rest were widowed. The respondents were divided into five age groups, that is, 18 to 25 (39.2%), 26 to 35 (45.5%), 36 to 45 (10.3%), 46 to 55 (4.5%), and 56 to 65 (0.5%) years old. Among the 1,061 respondents, 6.2% had secondary school level education, 10.7% had a diploma certificate level education, 60.0% had a bachelor degree-level education, 20.5% had a master-level education, and the remaining had a doctoral-level education. Meanwhile, 69.3% were full-time employees, 13.4% worked part-time, and the rest were seeking employment opportunities. Besides, 41.2% of the respondents had a monthly income of less than or up to RM 2,500, 22.0% had between RM 2,501 and RM 5,000, 17.6% had between RM 5,001 and RM 7,500, and 10.8% had between RM 7,501 to RM 10,000. Respondents working in the upper management level comprised 12.6%, while 32.1% worked in the middle management level, and 38.3% at the junior management level. The remaining respondents were working in self-employed settings. The results are provided in Table 2.

Reliability and Validity

Based on Hair et al. (2019), the study's latent constructs' reliabilities were attained and appraised using Cronbach's alpha (CA), DG rho, and composite reliability (CR). Cronbach's alpha value for each construct was well above the threshold of 0.70, and the minimum Cronbach's alpha value was 0.830 (Hair et al., 2019). The results are presented in Table 3. All the DG rho values of the study's constructs were also well above the threshold of 0.70, where the minimum value of DG rho was 0.838 (Hair et al., 2019). Moreover, the CR values were higher than the threshold of 0.70, where the lowest

CR value was 0.880 (Chin, 2010). These outcomes postulate that the latent constructs have achieved appropriate reliabilities and would perform well in the later analysis stages. The average value extracted (AVE) for all the items for each construct must be above the score of 0.50 to establish an adequate convergent validity to support the uni-dimensionality concept for each construct (Hair et al., 2019). Thus, the items showed that the constructs had adequate convergent validity (see Table 3). Additionally, all the value inflation factor (VIF) values for each construct were well below the threshold of 3.3, revealing no issue of multicollinearity (Chin, 2010). The item loading and cross-loading reported confirming the constructs' discriminant validity are described in Tables 3 and 4, respectively.

The study's constructs had fitting discriminant validities (see Table 4). Moreover, the Fornell and Larcker (1981) criterion was utilized to determine the discriminant validity of each construct. The Fornell-Larcker criterion was calculated with the square root of a construct's AVE, and the AVE's square root for the construct must be higher than the correlation among the study's other constructs (Hair et al., 2019).

Another suggested test for discriminant validity is the Heterotrait-Monotrait (HTMT) ratio. The HTMT values must be 0.90 or less to establish discriminant validity (Hair et al., 2019). The results in Table 4 demonstrate that the study has no evidence of the lack of discriminant validity. Tables 4 and 5 show that the study has sufficient discriminant validity for each construct.

Path Analysis

After gaining satisfactory reliabilities and validities from the structural assessment of the study model, the study's hypotheses were evaluated. The adjusted r^2 value for the five exogenous constructs (i.e., tax awareness, tax morale, tax complexity, tax penalty, and fairness perception) elucidated 55.7% of the change in the intention to comply with the tax system. The predictive relevance (Q^2) value for the part of the model was 0.329, demonstrating a medium predictive relevance (Hair et al., 2019). Meanwhile, the adjusted r^2 value for the intention to comply as the exogenous construct on tax compliance explained 60.9% of the change in tax compliance among the study samples. The predictive relevance (Q^2) value for the part of the model was 0.360, signifying a large predictive relevance (Chin, 2010).

Model standardized path values, t -values, and significance levels are listed in Table 6. The path coefficient between FP and ITC ($\beta = .184$, $t = 2.116$, $p = .017$) indicated a significant and positive effect of fairness perception on the intention to comply with the tax system. This result formed significant statistical support for H_1 . Next, the path between TP and ITC ($\beta = .386$, $t = 5.354$, $p = .000$), which illustrated the influence of tax penalty on the intention to comply with the tax system, was positive and significant; this delivered the support to accept H_2 . The path value for the TM and ITC

Table 2. Demographic Characteristics.

	N	%
Gender		
Female	130	52
Male	120	48
Total	250	100.0
Age Group		
18–25 years	112	44.8
26–30 years	51	20.4
31–35 years	36	14.4
36–40 years	23	9.2
Above 40 years	28	11.2
Total	250	100.0
Average Monthly Income (MYR)		
Below 2,500	103	41.2
2,501–5,000	55	22.0
5,001–7,500	44	17.6
7,501–10,000	27	10.8
More than 10,000	21	8.4
Total	250	100.0
Ethnicity		
Malay	42	16.8
Chinese	168	67.2
Indian	40	16.0
Total	250	100.0
Marital status		
Single	156	62.4
Married	76	30.4
Divorced	4	1.6
Widowed	14	5.6
Total	250	100.0
Education		
Secondary school certificate	27	10.8
Diploma certificate	66	26.4
Bachelor degree or equivalent	140	56.0
Master's degree	14	5.6
Doctoral degree	3	1.2
Total	250	100.0
Employment status		
Employed Full-Time	98	69.3
Employed Part-Time	30	13.4
Retired	7	2.8
Self-Employed	44	17.6
Students	65	26.0
Unemployed	6	2.4
Total	250	100.0

($\beta = -0.065$, $t = 0.866$, $p = .193$) showed that tax morale insignificantly impacted the intention to comply with the tax system, and this offered no statistical support for H_3 . The path coefficient for TA and ITC ($\beta = .405$, $t = 5.793$, $p = .000$) represented a positive and significant effect; it offered support for the argument that tax awareness influenced the intention to comply and thus the acceptance of H_4 . On the other hand, the path from TCX to ITC ($\beta = -0.038$, $t = 0.664$, $p = .253$),

illustrating the influence of tax complexity on the intention to comply, was negative and insignificant. Hence, H_5 was rejected. The path from ITC to TCP ($\beta = .781$, $t = 17.692$, $p = .000$), which illustrated the intention to comply and tax compliance, was positive and significant; it delivered the support to accept H_6 .

ANN Findings

Model 1

In this study, the deep multi-layer perception (MLP) ANN, consisting of four layers, that is, one input, two hidden, and one output was applied (Gbongli et al., 2019). The feed-forward-back propagation (FFBP) with MLP ANN was utilized in this study. The ten-fold ANN model in the SPSS neural network algorithm (Hayat et al., 2021) was used to address over-fitting. Seventy percent of data was utilized for training, 20% for testing, and the remaining were put on hold. The prediction accuracy was assessed with the RMSE score of the model (Leong et al., 2020). The results are depicted in Table 7. High predictive accuracy was displayed as the RMSE values of the training and testing data segments were close (Figure 1).

The results also indicated that the ANN model achieved better data fitting and predictive accuracy (Hayat et al., 2020). Next, sensitivity analysis was employed to evaluate the contribution of each input variable in the model to the intention of complying with the tax system (Gbongli et al., 2019). Normalized importance for every input of the constructs was gauged by the percentage fraction of the relative importance of each input neuron divided by the highest relative importance (Leong et al., 2020). Table 8 presents the evaluation results. The findings showed that tax awareness was the most significant contributing factor, followed by tax penalties and fairness perception.

Finally, the average synaptic weights were estimated for the input layer and hidden layers (Hayat et al., 2021). The results showed that the three most contributing factors were tax awareness (100%), tax penalties (92.55%), and fairness perception (62.82%). Tax complexity and tax morals, on the other hand, are the least influential factors on the intention to comply with the tax system. The first hidden layer contributory neuron was H (1.2), while the inhibiting neuron was H (1:3). Meanwhile, the most contributing hidden outer neuron was H (2:2), and the most inhibiting hidden neuron was H (2.1) (Table 9).

Model 2

The prediction accuracy for model 2 (Figure 2) was assessed with the RMSE score of model 2 (Hayat et al., 2021). Results are listed in Table 10, and high predictive accuracy is shown since the RMSE values of training and testing are close (Leong et al., 2020).

Table 3. Reliability and Validity.

Variables	No. Items	Mean	SD	CA	DG <i>rho</i>	CR	AVE	VIF
TA	6	3.570	0.951	0.909	0.909	0.932	0.347	2.440
TM	7	3.651	0.869	0.869	0.894	0.904	0.654	2.682
TCX	7	3.418	0.966	0.927	0.938	0.945	0.774	2.477
TP	6	3.799	0.776	0.879	0.891	0.911	0.671	1.699
FP	7	3.589	0.798	0.874	0.878	0.908	0.663	3.282
TCP	6	3.660	0.813	0.830	0.838	0.880	0.596	1.000
ITC	6	3.558	0.857	0.834	0.840	0.883	0.601	—

Source. Author's data analysis.

Note. TA= tax awareness; TM= tax moral; TCX= tax complexity; TP = tax penalty; FP= fairness perception; ITC= intention to comply; TCP= tax compliance; SD= Standard Deviation; CA= Cronbach's alpha; DG= *rho*—Dillon-Goldstein's *rho*; CR—COMPOSITE reliability; AVE = average variance extracted; VIF= variance inflation Factor.s

Table 4. Discriminant Validities.

	FP	TA	TP	TM	ITC	TCX	TCP
Fornell-Larcker Criterion							
FP	0.814						
TA	0.512	0.857					
TP	0.516	0.482	0.819				
TM	0.638	0.506	0.414	0.809			
ITC	0.534	0.644	0.631	0.400	0.776		
TCX	0.407	0.291	0.66	0.449	0.291	0.880	
TCP	0.552	0.668	0.497	0.435	0.781	0.293	0.772
HTMT Ratios							
FP	—						
TA	0.568	—					
TP	0.581	0.536	—				
TM	0.734	0.562	0.551	—			
ITC	0.627	0.568	0.722	0.481	—		
TCX	0.452	0.243	0.551	0.449	0.855	—	
TCP	0.664	0.767	0.739	0.532	0.694	0.358	—

Source. Author's data analysis.

Note. TA = tax awareness; TM = tax moral; TCX = tax complexity; TP = tax penalty; FP = fairness perception; ITC intention to comply; TCP = tax compliance.

It also represented the ANN model's data fitting and higher predictive accuracy. The ANN model 2 can predict the overall tax compliance behavior by 24.8% by the goodness of fit (Table 11).

Discussion

The current study examined the intention to comply and tax compliance among individual Malaysian taxpayers. This study's result has established support for the argument that the perception of fairness promotes the intention to comply with the tax rules and regulations. The PLS-SEM and ANN model 1 confirmed that the perception of fairness promoted the intention to comply with the tax regulations. Furthermore, the study's findings coincided with the results in Richardson (2006) that the perception of tax fairness harnessed the taxpayers' intention to comply

with the tax rules and regulations. Thus, tax fairness promotes the perception of quality and fairness in the tax system. Perception of tax system fairness develops the perception of prevailing justice of the tax system and appropriately influences the intention to comply (Guzel et al., 2019). Hence, promoting the perception of fairness is necessary to promote tax compliance.

Besides that, tax awareness significantly harnessed the intention to comply with the tax rules and regulations. The current study's finding concurred with the outcome in Taofeeq (2018), whereby the intention to comply increased when there was an awareness that the tax collected would be utilized for the public's welfare and that the general public conditions had improved. Additionally, tax awareness improves the taxpayers' knowledge and the necessity to pay tax on time and feel more comfortable paying the tax in full (Rahmayanti et al., 2020).

Table 5. Loadings and Cross-Loading.

Code	FP	TA	TP	TM	ITC	YCS	TCP
FP1	0.828	0.400	0.337	0.564	0.371	0.359	0.386
FP2	0.821	0.423	0.387	0.619	0.427	0.355	0.502
FP3	0.838	0.374	0.415	0.577	0.370	0.384	0.421
FP4	0.769	0.401	0.471	0.389	0.477	0.243	0.445
FP5	0.816	0.468	0.460	0.475	0.491	0.334	0.473
TA1	0.362	0.875	0.312	0.402	0.537	0.083	0.567
TA2	0.417	0.893	0.366	0.406	0.551	0.110	0.562
TA3	0.458	0.875	0.383	0.496	0.570	0.226	0.588
TA4	0.489	0.823	0.512	0.451	0.561	0.243	0.582
TA5	0.464	0.815	0.490	0.409	0.538	0.298	0.559
TP1	0.405	0.389	0.859	0.310	0.563	0.429	0.555
TP2	0.450	0.422	0.827	0.311	0.587	0.397	0.508
TP3	0.448	0.411	0.852	0.359	0.550	0.382	0.533
TP4	0.418	0.333	0.748	0.357	0.382	0.448	0.455
TP5	0.395	0.411	0.806	0.383	0.459	0.404	0.508
TM1	0.547	0.387	0.250	0.817	0.267	0.327	0.276
TM2	0.577	0.457	0.372	0.864	0.422	0.341	0.452
TM3	0.527	0.364	0.274	0.816	0.283	0.354	0.304
TM4	0.455	0.423	0.416	0.749	0.339	0.407	0.350
TM5	0.458	0.394	0.326	0.793	0.248	0.397	0.325
ITC1	0.398	0.525	0.606	0.363	0.838	0.288	0.636
ITC2	0.486	0.446	0.469	0.535	0.716	0.386	0.498
ITC3	0.535	0.456	0.431	0.439	0.722	0.368	0.534
ITC4	0.360	0.565	0.494	0.187	0.818	0.082	0.651
ITC5	0.329	0.497	0.440	0.092	0.775	0.057	0.689
TCX1	0.294	0.142	0.382	0.318	0.211	0.873	0.215
TCX2	0.357	0.217	0.468	0.375	0.274	0.906	0.305
TCX3	0.426	0.198	0.499	0.442	0.301	0.908	0.281
TCX4	0.419	0.240	0.407	0.471	0.236	0.847	0.272
TCX5	0.277	0.185	0.410	0.358	0.241	0.864	0.205
TCP1	0.364	0.554	0.471	0.235	0.647	0.127	0.834
TCP2	0.325	0.595	0.474	0.275	0.647	0.091	0.815
TCP3	0.309	0.486	0.437	0.111	0.643	0.068	0.810
TCP4	0.576	0.440	0.496	0.593	0.508	0.463	0.690
TCP5	0.627	0.495	0.562	0.558	0.555	0.475	0.701

Source. Author's data analysis.

Note. (1) TA: Tax awareness; TM: Tax moral; TCX: Tax complexity; TP: Tax penalty; FP: Fairness perception; ITC: Intention to comply; TCP: Tax compliance. (2) The italic values in the matrix above are the item loadings, and others are cross-loadings.

Table 6. Path Coefficients.

Hypo		Beta	T	p	r ²	f ²	Q ²	Decision
H ₁	FP → ITC	0.184	2.116	.017		0.039		Accept
H ₂	TP → ITC	0.386	5.354	.000		0.197		Accept
H ₃	TM → ITC	-0.065	0.866	.193		0.005		Reject
H ₄	TA → ITC	0.405	5.793	.000		0.233		Accept
H ₅	TCX → ITC	-0.038	0.664	.253	0.566	0.002	0.329	Reject
H ₆	ITC → TCP	0.781	17.692	.000	0.610	0.566	0.360	Accept

Note. TA = Tax awareness; TM = Tax moral; TCX = Tax complexity; TP = Tax penalty; FP = Fairness perception; ITC = Intention to comply; TCP = Tax compliance; **Source.** Author's data analysis.

Table 7. RMSE for Training and Testing of ANN Model.

	Training			Testing			Hold out	Total
	N	SSE	RMSE	N	SSE	RMSE		
1	177	2.219	0.501	53	0.792	0.547	20	250
2	174	1.943	0.482	50	0.636	0.440	26	250
3	174	2.208	0.494	49	0.340	0.291	27	250
4	161	2.854	0.711	58	0.536	0.379	31	250
5	173	1.862	0.433	57	0.637	0.414	20	250
6	171	2.798	0.601	49	0.467	0.476	30	250
7	164	2.032	0.492	55	0.884	0.636	31	250
8	179	2.380	0.524	47	0.451	0.375	24	250
9	167	4.657	0.727	46	1.559	0.816	37	250
10	176	2.272	0.564	47	0.642	0.502	27	250
	Mean	2.522	0.552		0.694	0.487		
	SD		0.098			0.150		

Next, the perception of tax penalty endorsed complying with the tax rules and regulations. Thus, the perception of the tax penalty promotes a positive attitude toward paying tax on time and complying with tax regulations. The result coincided with the outcome reported by Taofeeq (2018) that the tax penalty system harnessed the attitude toward complying with the tax rules and tax compliance. The tax penalty is critical to follow the tax rules and regulations to avoid unnecessary tax payments. It shows that strict rules and regulations are necessary for a tax system to achieve the tax collection target (Gambo et al., 2014). Nevertheless, the tax penalty acts as an astringent strategy to promote the intended tax compliance.

Furthermore, the current study determined no significant association between tax morale and the intention to comply with the tax rules and regulations. The result showed that the taxpayers in Malaysia were not morally inclined to follow the tax regulations. It depicts the lack of perceived civic duty and that Malaysians are not comfortable paying taxes on time and in full. This result coincided with the findings in Youde and Lim (2019) that developing countries' taxpayers had less tax morale to comply with the tax rules and regulations. Generally, developing countries have low civic mindfulness and a lower level of responsibility to pay tax liabilities on time (Luttmer & Singhal, 2014).

Tax complexity insignificantly influenced the intention to comply with the tax rules and regulations. This result did not match Taofeeq's (2018) finding that tax complexity reduced the intention to pay tax. Nevertheless, Musimenta (2020) postulates that tax complexity motivates the taxpayers to engage in tax evasion as the tax system is perceived as complex, and compliance is challenging to follow. Tax complexity needs attention, and the tax system must be streamlined to reduce the perceived perception of complexity. A simple, innovative, and easy-to-use tax system promotes the perception of fairness and promotes compliance (Youde & Lim, 2019).

The analysis outcome supported that the intention to comply with the tax rules and regulations significantly promoted tax compliance. This finding coincided with the result in Youde and Lim (2019). The intention to comply with the tax rules by deterrence seems less effective than by the attributes of the prevailing tax system. However, intention significantly leads to tax compliance behavior.

Policy and Practical Implications

The current work offers several policy and practical implications. Tax collection is the most vital source of government revenue, and tax compliance is necessary to increase government resources (Remali et al., 2018). Malaysian taxpayers are not morally inclined to conform to the tax rules and regulations. Thus, the tax authorities need to inform the taxpayers why paying the enforced tax fully and on time is necessary. Communication is crucial to highlight the importance of paying tax and utilizing the collected tax appropriately. Taxpayers' morale and awareness are essential to enhancing government revenue (Taofeeq, 2018). Tax fairness and tax morale can improve tax payment on time and the total amount.

Tax complexity reduces the intention to comply with the tax rules and regulations (Zandi et al., 2016). The tax system needs to streamline the tax payment procedures and advocate the benefits of paying tax for individuals and the nation. Furthermore, the tax authorities need to include tax accountants, individual taxpayers, and corporate taxpayers to formulate more sustainable tax policies to increase the tax collection at the national level (Luttmer & Singhal, 2014). The government also needs to improve the public trust in the tax system and transparently perform the disbursement of public funds and only utilize it for public welfare.

The current study has three limitations. First, the study concentrated on explaining tax compliance intention and behavior among individuals with limited factors. As such,

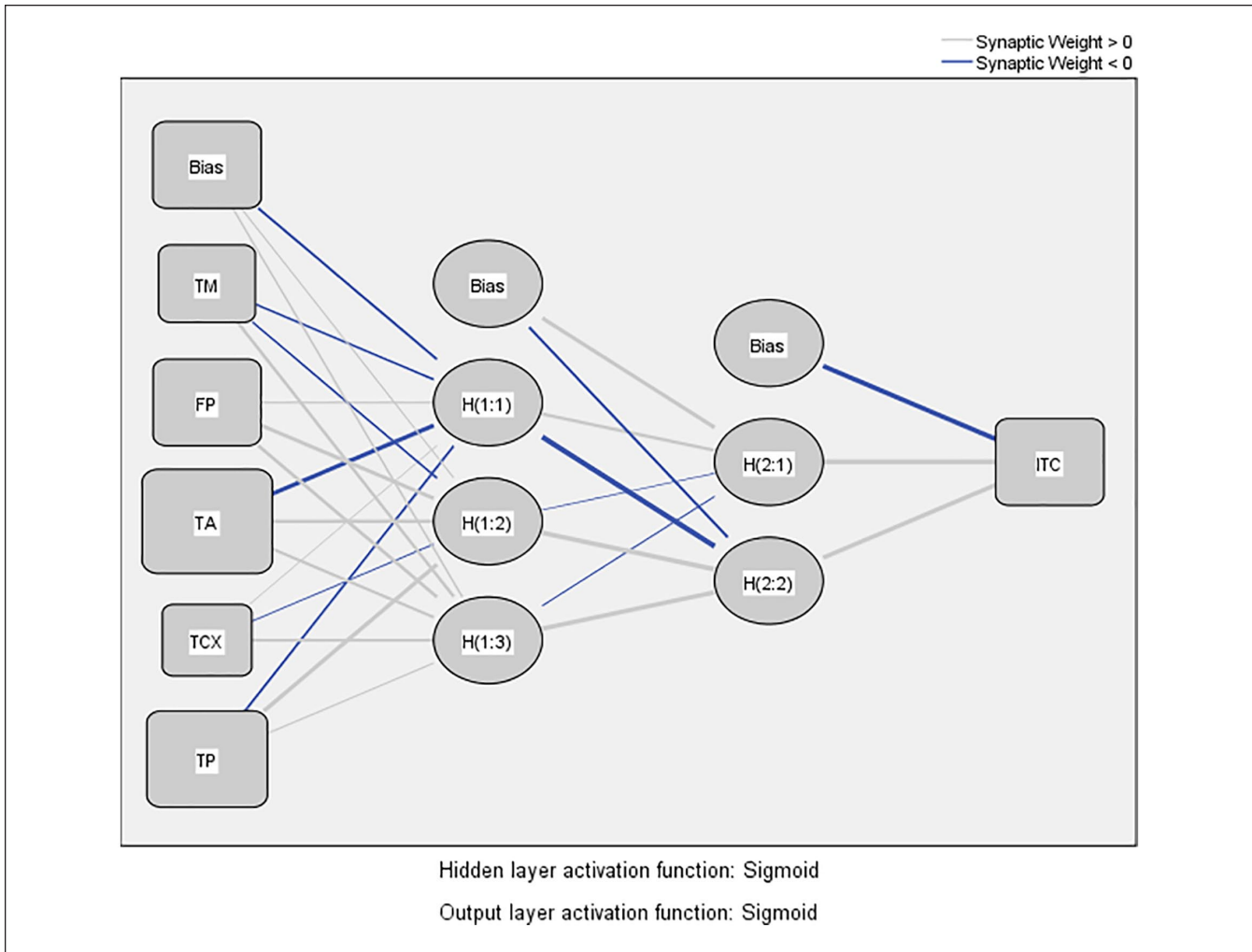


Figure 1. ANN made I.

Source. Author's data analysis.

Note. TA = tax awareness; TM = tax moral; TCX = tax complexity; TP = tax penalty; FP = fairness perception; ITC = intention to comply; TCP = tax compliance.

Table 8. Sensitivity analysis.

	TM	FP	TA	TCX	TP
1	0.098	0.234	0.267	0.125	0.275
2	0.152	0.141	0.249	0.183	0.275
3	0.090	0.211	0.361	0.142	0.195
4	0.090	0.192	0.390	0.024	0.304
5	0.073	0.123	0.238	0.158	0.408
6	0.065	0.201	0.384	0.038	0.312
7	0.048	0.166	0.376	0.061	0.348
8	0.043	0.293	0.318	0.068	0.278
9	0.213	0.202	0.223	0.160	0.202
10	0.046	0.213	0.275	0.087	0.380
Mean	0.096	0.195	0.311	0.106	0.288
Relative importance	31.07%	62.82%	100%	34.17%	92.55%

Source. Author's data analysis.

Note. TA = tax awareness; TM = tax moral; TCX = tax complexity; TP = tax penalty; FP = fairness perception; ITC = intention to comply; TCP = tax compliance.

Table 9. Average synaptic weights of the input and hidden neurons in the ten-fold ANN.

	H (1:1)	H (1:2)	H (1:3)	H (2:1)	H (2:2)	Outer layer	Total contribution
Bias	0.099	0.378	0.711				1.188
TM	0.869	0.295	0.314				1.478
FP	0.748	0.934	-0.137				1.545
TA	1.464	0.721	-0.660				1.585
TCX	0.521	-0.926	-0.764				-1.169
TP	1.832	0.586	-0.838				1.580
Hidden Layer 1			Bias	0.134	1.099	1.233	
			H (1:1)	-2.292	-1.795	-4.087	
			H (1:2)	0.942	3.196	4.138	
			H (1:3)	-1.955	-4.449	-6.404	
Hidden Layer 2			Bias			-0.411	
			H (2:1)			-0.060	
			H (2:2)			3.005	

Source. Author’s data analysis.

Note. TA: Tax awareness; TM: Tax moral; TCX: Tax complexity; TP: Tax penalty; FP: Fairness perception; ITC: Intention to comply; TCP: Tax compliance.

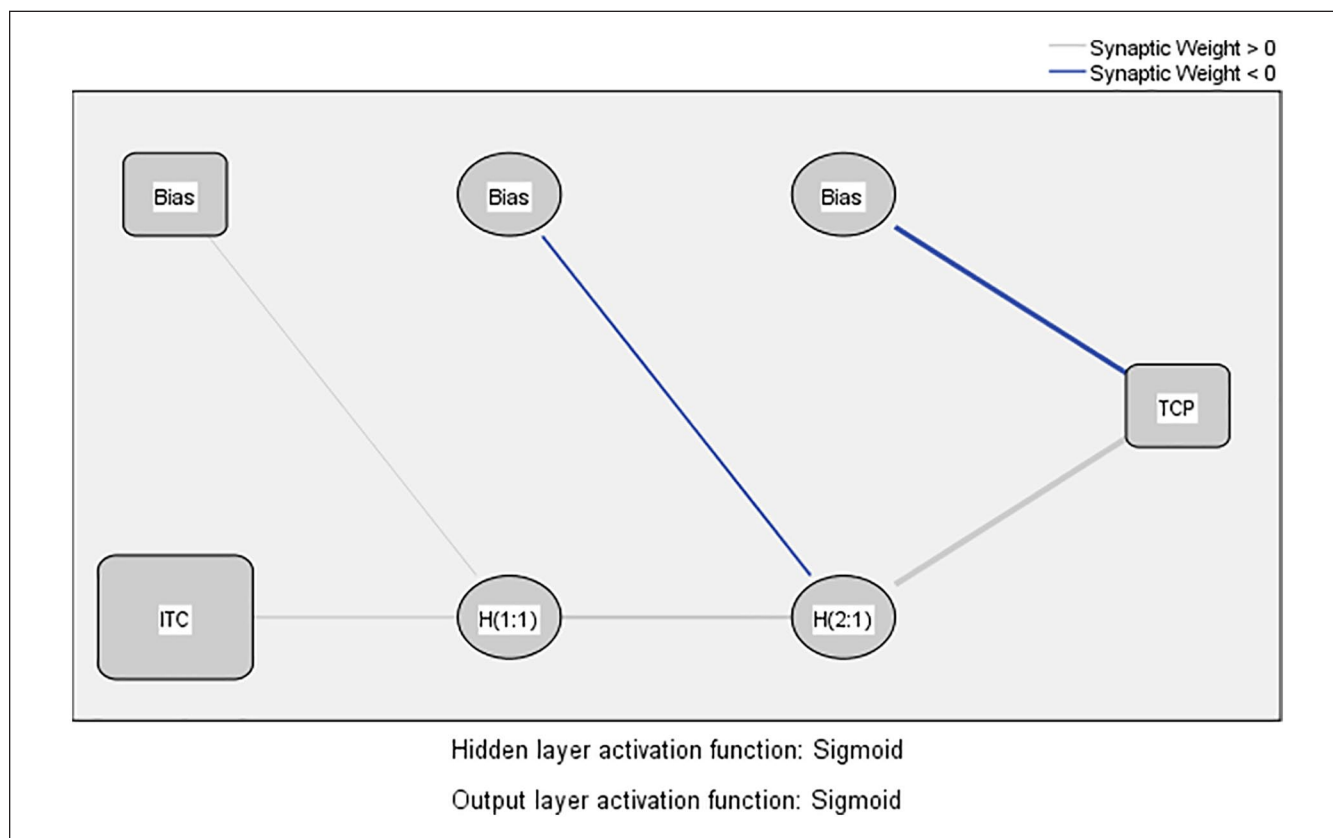


Figure 2. ANN Model 2.

Source. Author’s data analysis.

Note. TA = Tax awareness; TM = Tax moral; TCX = Tax complexity; TP = Tax penalty; FP = Fairness perception; ITC = Intention to comply; TCP = Tax compliance.

the inclusion of relevant factors, acquiring data from tax accountants, and enforcing tax laws may offer sufficient exploration of tax compliance intention and behavior.

Second, the data were collected in a self-report manner and in a single time frame, having limited generalization, and the study results must be carefully interpreted. Therefore, it

Table 10. RMSE for training and testing of ANN model.

	Training			Testing			Hold out	Total
	N	SSE	RMSE	N	SSE	RMSE		
1	178	1.936	0.522	47	0.673	0.710	25	250
2	183	2.741	0.630	38	0.356	0.862	29	250
3	172	1.885	0.509	52	0.375	0.370	26	250
4	188	2.429	0.597	47	0.311	0.301	15	250
5	167	1.829	0.494	59	0.637	0.680	24	250
6	175	2.033	0.533	55	0.471	0.416	20	250
7	162	2.039	0.558	56	0.501	0.381	32	250
8	178	3.075	0.500	56	1.196	0.465	16	250
9	168	2.970	0.454	64	1.348	0.629	18	250
10	168	2.691	0.465	58	1.394	0.654	24	250
	Mean		0.526			0.546		
	SD		0.055			0.184		

Table 11. Average Synaptic Weights of the Input and Hidden Neurons in the Ten-Fold ANN.

	H (1:1)	H (2:1)	H (2:2)	Outer layer	Total Contribution
Bias	0.317				0.317
ITC	2.610				2.610
Hidden Layer 1		Bias	-0.852		
		H (1:1)	6.012		
Hidden Layer 2		Bias		-0.187	
		H (2:1)		2.389	

Source. Author's data analysis.

Note. TA = Tax awareness; TM = Tax moral; TCX = Tax complexity; TP = Tax penalty; FP = Fairness perception; ITC = Intention to comply; TCP = Tax compliance.

would be good to collect the data longitudinally and explore taxpayer compliance intention and behavior. Lastly, the current study gathered data from only Malaysian samples. Future studies may include samples from neighboring countries and explore the countries' national culture factors of trust in the government, governance effectiveness, and perception of corruption affecting the tax compliance intention and behavior.

Conclusion

The current work aimed to explore and explain the tax compliance intention and compliance with the tax system factors via the dual methods of PLS-SEM and deep ANN analysis. Tax awareness, tax penalty, and perception of fairness promoted the intention to comply with the tax rules and regulations. However, significant efforts are required to uplift the tax morale and reduce the tax complexity. A thorough system-level change requires simplifying the tax complexity and harnessing the tax morale among the people in general. The role of the government is vital to improve tax compliance by reducing the wastage of public money on unnecessary developmental spending. The public spending in infrastructure,

human capital, and uplifting the civic lifestyle promotes public confidence in the government and the perception that the tax money is utilized prudently.

Institutional Review Board Statement

Local ethics committee (Universiti Malaysia Kelantan, Malaysia) ruled that no formal ethics approval was required in this particular case as this research did not collect any medical information, there was no known risk involved, did not intend to publish anyone's personal information, and did not collect data from underaged people. This study has been performed in accordance with the Declaration of Helsinki.

Informed Consent Statement

Informed consent for participation was obtained from respondents who participated in the survey. For the respondents who participated the survey online (using google form), they were asked to read the ethical statement posted on the top of the form (*There is no compensation for responding nor is there any known risk. In order to ensure that all information will remain confidential, please do not include your name. Participation is strictly voluntary and you may refuse to participate at any time*) and proceed only if they agree. No data was collected from anyone under 18 years old.

Availability of Data and Materials

All data will be available after acceptance for publication

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Anas A. Salameh  <https://orcid.org/0000-0002-4694-3771>

Abdullah Al Mamun  <https://orcid.org/0000-0002-9713-742X>

References

- Alasfour, F., Samy, M., & Bampton, R. (2016). The determinants of tax morale and tax compliance: Evidence from Jordan. *Advances in Taxation*, 23, 125–171. <https://doi.org/10.1108/S1058-749720160000023005>
- Azmi, A. A. C., Zainuddin, S., Mustapha, M. Z., & Nawi, Y. (2016). The mediating effect of Tax Fairness on the relationship between knowledge, complexity and voluntary Tax compliance. *Asian Journal of Accounting Perspectives*, 9, 1–12.
- Brockmann, H., Genschel, P., & Seelkopf, L. (2016). Happy taxation: Increasing tax compliance through positive rewards? *Journal of Public Policy*, 36(3), 381–406.
- Cain, M. K., Zhang, Z., & Yuan, K.-H. (2017). Univariate and multivariate skewness and kurtosis for measuring non-normality: Prevalence, influence, and estimation. *Behavior Research Methods*, 49(5), 1716–1735.
- Chin, W. W. (2010). How to write up and report PLS analyses. In V. E. Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of partial least squares* (pp. 655–690). Springer.
- Coita, I. F., Cioban, S., & Mare, C. (2021). Is trust a valid indicator of tax compliance behaviour? A study on taxpayers' public perception using sentiment analysis tools [Conference session]. Sciendo (De Gruyter) Conference Proceedings Volume Indexed Web of Science (CPCI), The 4th International Conference on Economics and Social Sciences, June 10th – 11th (2021).
- Coita, I. F., & Mare, C. (2021). The utility of neural model in predicting tax avoidance behavior. In I. Czarnowski, R. J. Howlett, & L. C. Jain (Eds.), *Intelligent Decision Technologies. Smart Innovation, Systems and Technologies* (pp. 71–81, Vol. 238). Springer.
- Devos, K. (2007). Measuring and analysing deterrence in taxpayer compliance research. *Journal of Australian Taxation*, 10(2), 182–219.
- Evans, C., & Tran-Nam, B. (2014). Towards the Development of a Tax System Complexity Index. *Australian School of Business Research Paper No. 2013 TABL 1001*, 35(3), 26.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *JMR: Journal of Marketing Research*, 18(1), 39–50.
- Gambo, E.-M. J., Mas'ud, A., Nasidi, M., & Oyewole, O. S. (2014). Tax Complexity and Tax compliance in African self-assessment environment. *International Journal of Management Research and Reviews*, 4(5), 575–582.
- Gbongli, K., Xu, Y., & Amedjonekou, K. M. (2019). Extended technology acceptance model to predict mobile-based money acceptance and sustainability: A multi-analytical structural equation modeling and neural network approach. *Sustainability*, 11, 3639. <https://doi.org/10.3390/su11133639>
- Ghani, H. H. A., Hamid, N. A., Sanusi, S., & Shamsuddin, R. (2020). The effect of Tax knowledge, compliance costs, complexity and morale towards Tax compliance among self-employed in Malaysia. *Global Business and Management Research: An International Journal*, 12(1), 18–32.
- Guzel, S., Ozer, A., & Ozcan, G. M., (2019). The effect of the variables of tax justice perception and trust in government on tax compliance: The case of Turkey. *Journal of Behavioural and Experimental Economics*, 78, 80–86.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Hamid, N. A., Ismail, I. S., Yunus, N., Jali, M. N., & Rosly, A. S. (2022). Taxpayer Perceptions of tax awareness, tax education, and tax complexity among small and medium enterprises in Malaysia: A quadrant analysis approach. *Universal Journal of Accounting and Finance*, 10(1), 231–242.
- Hayat, N., Al-Mamun, A., Nasir, N. A., & Nawi, N. B. C. (2021). Predictive accuracy comparison between structural equation modelling and neural network approach: A case of intention to adopt conservative agriculture. In B. Alareeni, A. Hamdan, & I. Elgedawy (Eds.), *Importance of new technologies and entrepreneurship in business context: The context of economic diversity in developing countries: The impact of new technologies and entrepreneurship on business development* (pp. 1958–1971). Springer International Publishing.
- Hayat, N., Al-Mamun, A., Nasir, N. A. M., Selvachandran, G., Nawi, N. B. C., & Gai, Q. S. (2020). Predicting Sustainable farm Performance—using hybrid structural equation modeling with an artificial neural network approach. *Land*, 9, 289. <https://doi.org/10.3390/land9090289>
- Jaffar, R., Derashid, C., & Taha, R. (2021). Determinants of tax aggressiveness: Empirical evidence from Malaysia. *Journal of Asian Finance, Economics, and Business*, 8(5), 179–188.
- Kamil, N. I. (2015). The effect of taxpayer awareness, knowledge, Tax penalties and Tax authorities services on the Tax Compliance: Survey on the individual taxpayer at Jabodetabek & Bandung. *Research Journal of Finance and Accounting*, 6(2), 2222–2847.
- Leong, L.-Y., Hew, T.-S., Ooi, K.-B., & Chong, A. Y. L. (2020). Predicting the antecedents of trust in social commerce – A hybrid structural equation modeling with neural network approach. *Journal of Business Research*, 110, 24–40. <https://doi.org/10.1016/j.jbusres.2019.11.056>

- Loo, E. C. (2016). The influence of the introduction of self-assessment on compliance behaviour of individual taxpayers in Malaysia. <https://ses.library.usyd.edu.au/handle/2123/7695>
- Luttmer, E. F. P., & Singhal, M. (2014). Tax morale. *Journal of Economic Perspectives*, 28(4), 149–168.
- Musimenta, D. (2020). Knowledge requirements, tax complexity, compliance costs and tax compliance in Uganda. *Cogent Business & Management*, 7(1), 1–19.
- Noor Azmi, N. P. N. A., Tarmuji, I., Hamid, N. A., Rasit, Z. A., & Rashid, N. (2020). Tax compliance motives among grab car drivers in Malaysia. *Journal of Critical Reviews*, 7(11), 446–451.
- Palil, M. R., & Mustapha, A. F. (2011). Factors affecting tax compliance behaviour in self assessment system. *African Journal of Business Management*, 5(33), 12864–12872.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63(1), 539–569.
- Rahmayanti, N. P., Sutrisno, T S., & Prihatiningtias, Y. W. (2020). Effect of tax penalties, tax audit, and taxpayers awareness on corporate taxpayers' compliance moderated by compliance intentions. *International Journal of Research in Business and Social Science*, 9(2), 118–124.
- Rashid, S. F. A., Ramli, R., Palil, M. R., & Amir, A. M. (2021). The influence of power and trust on tax compliance motivation in Malaysia. *International Journal of Economics and Management*, 15(1), 133–148.
- Remali, A. M., Abdul Satar, A. N. S., Adiba Mamad, F. N., Zainal Abidin, F. F., & Zainuddin, S. Z. (2018). Tax knowledge, tax penalty, and tax rate on tax compliance among small-medium enterprises in Selangor. *Global Business and Management Research: An International Journal*, 10(3), 12–23.
- Richardson, G. (2006). The impact of tax fairness dimensions on tax compliance behavior in an Asian jurisdiction: The case of Hong Kong. *The International Tax Journal*, 32(1), 29–42.
- Saad, N. (2012). Tax non-compliance behaviour: Taxpayers view. International Congress on Interdisciplinary Business and Social Science, 65, 344–351.
- Sapiei, N. S., Kasipillai, J., & Eze, U. C. (2014). Determinants of tax compliance behaviour of corporate taxpayers in Malaysia. *Journal of Tax Research*, 12(2), 383–409.
- Savitri, E., & Musfialdy. (2016). The effect of taxpayer awareness, Tax socialization, Tax penalties, compliance cost at taxpayer compliance with service quality as mediating variable. *Procedia – Social and Behavioral Sciences*, 219, 682–687.
- Swee Kiow, T., Claudia, L., Md Kassim, A. A., & Mohd Salleh, M. F. (2021). The moderating effect of individual taxpayers' education level on ethical perception and tax compliance behaviour in Peninsular Malaysia. *International Journal of Academic Research in Accounting Finance and Management Sciences*, 11(1), 166–182.
- Taofeeq, A. (2018). *Determinants of Tax Compliance among Small and Medium Enterprises in Kwara State, Nigeria* [MSc Dissertation]. Kwara State University. <https://www.proquest.com/openview/bbbbb43e8f47707b7a7df6489bb0705c/1?pq-origsite=gscholar&cbl=2026366&diss=y>
- Youde, S., & Lim, S. (2019). The determinants of Medium Taxpayers' Compliance Perspectives: Empirical Evidence from Siem Reap Province, Cambodia. *International Journal of Public Administration*, 42(14), 1222–1233.
- Zandi, G., Aslam, A., & Elwahj, A. S. M. (2016). Factors hindering taxpayers towards tax compliance in Malaysia. *International Journal of Economic Perspectives*, 10(4), 190–196.