

## The Mediating Role of Attitude in Tax Compliance Intentions: Perspectives from Malaysian Gig Workers

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### ABSTRACT

*A relatively new phenomenon, the gig economy is distinguished by the increasing prevalence and swift dissemination of temporary as well as flexible employment opportunities where employers prefer to hire independent contractors and freelancers over full-time staff. The proliferation of the gig economy has a substantial impact on labour relations, primarily concerning the tax obligations of independent contractors. Such individuals must, therefore, independently accrue and pay taxes on their income. Although extensive tax compliance studies have been conducted over the years, nonetheless, study on the tax compliance behaviour of gig workers are still scant. Thus, the objective of this study is to investigate the influence of attitude and its decomposed factors on the intention of gig economy workers to comply with tax laws and regulations. Using a survey method on 202 digital freelancers in Malaysia, the results indicated that moral reasoning, perceived fairness, and the adoption of online tax services had significant effects on the formation of individuals' attitudes towards intentions to comply. Another finding was that attitude acted as a mediator between the intention to comply and the decomposed factors of attitude. In brief, the research study offers a significant contribution by elucidating the determinants that impact the tax compliance conduct of gig workers and emphasising the critical role that attitudes play in determining intentions to comply. The results of this study hold practical significance for policymakers, tax authorities, and practitioners who are interested in promoting increased tax compliance in the gig economy and reducing tax losses from the gig economy.*

**Keywords:** Tax compliance intention; gig economy; gig workers; attitude; structural equation modelling (SEM)

### INTRODUCTION

Technology has revolutionised new economic models, including the gig economy, which are transforming the way in which we conduct business. Consumer-provider interactions through the Internet and mobile applications have been significantly simplified due to technological advancements and the widespread use of smartphones (Donovan et al. 2016; Kemp 2023). Furthermore, the gig economy has experienced remarkable expansion on a global scale due to universal employment challenges, including unemployment, underemployment, and saturated labour markets (ILO 2020, 2022). In consequence, the formal landscape of employment arrangements has been significantly altered by the anticipated continued ascent of gig workers over the past decade (Fennell 2022; Kolmar 2023). Unlike traditional employees, gig workers are freelancers, or independent contractors categorised as small business owners or self-employed.

The classification of gig workers poses critical challenges, particularly in taxation (Freedman 2020). Tax systems often differentiate taxpayers based on their employment status, subjecting them to distinct tax treatments (Adam et al. 2017; Adams et al. 2018). Since gig workers are not classified as employees, they do not benefit from monthly tax deductions like traditional

employees. Instead, they must maintain records of their business expenses to claim deductions. However, as many gig workers are young and financially inexperienced, they often struggle with managing budgets and compliance obligations without sufficient guidance or access to tax consultants (Black 2020; Thomas 2018). This complexity frequently results in less accurate tax filings, reducing government revenue and increasing compliance costs (Schwellnus et al. 2019; Thomas 2018). For example, uncollected taxes from gig work in the United States were estimated at USD 69 billion (TIGTA 2019). Tax authorities must better understand the compliance behaviours of gig workers in order to address the gap (Oei & Ring 2020).

The number of gig workers in Malaysia has increased 35-fold since 2016 (Nawawi et al. 2023). Although there has been much research on tax compliance among self-employed taxpayers, there are not many studies that specifically focus on gig workers. For example, Md Fadzil and Che Azmi (2021) explored factors that affect tax morale, whereas Azmi et al. (2020) examined compliance determinants among Grab Car drivers. Their findings emphasised the significance of improving tax morale and knowledge to sustain compliance. A unique challenge in the Malaysian context is that digital platforms are not required to report gig workers' income to the tax authority. This lack of reporting, along with the belief

that gig workers' income is insignificant, often leads them to ignore their tax obligations. As a result, if the tax authorities detect them, their behaviour will result in unintentional compliance (Oei & Ring 2020). In light of recent efforts by the Inland Revenue Board of Malaysia (2021) to encourage voluntary income disclosure by gig workers, it is important to understand their unique compliance challenges.

In order to gauge a better understanding of the tax compliance behaviour of gig workers in Malaysia, the present study utilises the Decomposed Theory of Planned Behaviour (DTPB) to examine the intention of gig workers to comply with tax laws and regulations. Originally, DTPB was an extended version of the Theory of Planned Behaviour (TPB) extensively used in product innovation acceptance (Tao & Fan 2017), technology adoption (Taylor & Todd 1995b) and finance research (Radduan 2019). Nonetheless, DTPB has been applied in tax compliance settings in order to investigate the influencing factors contributing towards compliance in different countries, including Malaysia (Soon et al. 2020), Indonesia (Hastuti et al. 2014) and Cambodia (Taing & Chang 2021). Based on DTPB, the attitude attribute is decomposed into three factors, such as moral reasoning, fairness perception and adoption of online tax services. The chosen factors were crucial to shaping the attitude of gig workers as gig workers were the future taxpayers, highly motivated yet inexperienced in managing their tax affairs (Thomas 2018). Subsequent research has investigated the mediating role of attitude in the relationships between the intention to comply with tax laws and regulations and the decomposed factors of attitude (Nguyen et al. 2024; Razak & Bidin 2019; Soon et al. 2020). Thus, this study is conducted in order to answer the following research objectives:

1. To examine the effect between decomposed elements of attitude towards the attitude of gig workers in Malaysia
2. To examine the effect of attitude on tax compliance intention among gig workers in Malaysia.
3. To examine the mediating effect of attitude on the decomposed elements towards tax compliance intention among gig workers in Malaysia.

The structure of this paper is as follows: Section 2 comprises the literature review and the development of hypotheses for the study. Section 3 provides a discussion of the research methodology. Section 4 then provides an analysis of the results, while Section 5 provides a discussion of the findings. Section 6 includes the recommendations and the limitations of this study, followed by the contributions of this study. Finally, the conclusion of this study is presented in the final section of this article.

## LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

This section presents the Decomposed Theory of Planned Behaviour (DTPB), the theory employed in this study, and a review of the literature on prior studies on moral reasoning, perceived fairness, adoption of online tax services, attitudes, and intention to comply with tax laws and regulations. This section concludes with the presentation of the research framework.

### DECOMPOSED THEORY OF PLANNED BEHAVIOUR (DTPB)

The Theory of Planned Behaviour (TPB) is a widely influential framework in social, psychological, and behavioural sciences. It has been extensively applied to predict and understand tax compliance behaviour (Benk et al. 2011; Bobek et al. 2007; Bobek & Hatfield 2003; Smart 2012; Trivedi et al. 2005). While TPB provides a solid foundation for understanding behaviour, it has been critiqued for its limitations, such as being overly general and lacking specificity in explaining complex behaviours (Shih & Fang 2004; Taylor & Todd 1995a). One notable criticism is its treatment of attitudes as a single, unidimensional construct that blends positive and negative beliefs, potentially masking the nuances of belief systems (Ajzen 1991).

To address these limitations, Taylor and Todd (1995a) introduced the Decomposed Theory of Planned Behaviour (DTPB), which refines TPB by breaking down key components, such as attitudes, into specific belief structures. This decomposition enhances predictive power by isolating distinct factors influencing behaviour. For instance, while TPB is effective in providing a general framework for tax compliance (Marandu et al. 2015; Onu & Oats 2016), DTPB allows a deeper understanding by linking compliance behaviour to specific belief structures (Soon et al. 2020; Taylor & Todd 1995a).

Attitude, a central concept in social psychology, plays a fundamental role in predicting and explaining behaviour (Fishbein & Ajzen 2010). In the context of DTPB, attitude is influenced by attitudinal beliefs—perceptions about the outcomes of a behaviour and their attractiveness. Therefore, DTPB decomposes attitude into three belief constructs: moral reasoning (affective component), perceived fairness (cognitive component), and adoption of online tax services (behavioural component) in order to enhance its predictive power (Soon et al. 2021). For example, moral reasoning reflects a gig worker's ethical perspective on fulfilling tax obligations, perceived fairness relates to their judgment of the tax system's equity, and the adoption of online tax services assesses the ease and practicality of compliance through digital tools. By breaking down attitudes into these constructs, the DTPB model can pinpoint specific factors that shape behaviour and provide more actionable insights.

However, applying these constructs to gig workers poses unique challenges. Gig workers often lack financial experience, may not perceive their income as significant, and operate in environments with limited regulatory oversight. For example, moral reasoning might be undermined by the informal nature of gig work, perceived fairness could be influenced by the broader tax system's treatment of traditional employees versus gig workers, and the adoption of online tax services might be limited by digital literacy or access. These challenges underscore the need for tailored strategies to address the compliance behaviours of gig workers effectively.

#### MORAL REASONING AND ATTITUDE

Attitude rooted in moral reasoning encompasses assessments of ethics, moral values, and feelings of guilt and shame. Collectively referred to as personal norms, these factors significantly influence taxpayers' intentions to comply with tax regulations. Research has demonstrated that individuals with strong ethical and moral principles tend to develop a positive attitude towards tax compliance (Md Fadzil & Che Azmi 2021; Ghani et al. 2020; Taing & Chang 2021). On the other hand, individuals who violate tax rules and are caught by authorities often experience guilt and shame, further affecting their compliance behaviour (Bhutta et al. 2019).

In the context of the gig economy, gig workers are particularly vulnerable to tax non-compliance. This vulnerability arises from a misalignment between their ethical values and the values promoted by digital platforms (Berger et al. 2020), coupled with the insufficient reporting mechanisms these platforms provide (Adhikari et al. 2020). Consequently, gig workers who possess high levels of moral reasoning and strong personal norms are more likely to exhibit a positive disposition towards the tax system and demonstrate higher compliance rates. Their internal moral compass and the emotional consequences of guilt and shame play crucial roles in guiding their behaviour towards fulfilling their tax obligations.

H<sub>1</sub> Moral reasoning has a positive and significant effect on attitude.

#### PERCEIVED FAIRNESS AND ATTITUDE

Perceptions of fairness play a crucial role in evaluating the overall equity of the income tax system, particularly in terms of procedural, distributive, and retributive fairness (OECD 2010). Distributive and procedural fairness significantly influence individuals' attitudes toward tax compliance (Faizal & Palil 2015). These perceptions affect compliance behaviour, whether through enforced compliance, where individuals comply due to fear of

penalties (Kogler et al. 2015), or voluntary compliance, where individuals comply out of a sense of duty and fairness (Dijike et al. 2019). However, the younger generation, such as Millennials, often exhibit a negative correlation between their perception of the tax system's fairness and their attitude towards tax compliance (Jurney et al. 2017). This demographic tends to be more critical of the tax system and less likely to comply if they perceive the tax system as unfair.

In the context of the gig economy, perceptions of fairness are particularly critical. Gig workers are expected to comply with tax regulations if they perceive the tax system as fair and equitable. Therefore, gig workers who strongly believe in the equity of the tax system are likely to exhibit a favourable disposition towards it and demonstrate higher levels of compliance.

H<sub>2</sub> Perceived fairness has a positive and significant effect on attitude.

#### ONLINE TAX SERVICES AND ATTITUDE

In the age of digitalisation, the tax authority's online tax services play a pivotal role in enhancing communication between taxpayers and the tax authority while also simplifying tax-related tasks for taxpayers. Tallaha et al. (2014) discovered a significant relationship between the utilisation of e-filing and individuals' attitudes towards adhering to tax regulations, particularly in terms of the perceived benefits, ease of use, and compatibility of these services. Recent advancements in digital taxation platforms, such as automated tax calculations, have further streamlined the compliance process, enhancing user experience and trust in these platforms (Nazarov et al. 2020; Wessels & Bornman 2020). Additionally, the growing societal emphasis on transparency and accountability within the gig economy has increased the appeal of using online tax services, encouraging gig workers to adopt these tools as part of their financial responsibilities.

Within the gig economy, online tax services are especially valuable. These services streamline tax processes for gig workers, making it easier for them to comply with tax laws and regulations. The convenience and efficiency provided by digital tax platforms can significantly incentivise gig workers to adhere to tax regulations willingly (Koustas 2020; Thomas 2018). Therefore, the effective utilisation of online tax services by gig workers is likely to positively influence their disposition towards voluntary tax compliance, fostering a more compliant and cooperative taxpayer base.

H<sub>3</sub> Adoption of online tax services has a positive and significant effect on attitude.

#### ATTITUDE AND INTENTION TO COMPLY

Intention to comply refers to a situation where gig workers have the intention either to comply or not to comply with their tax obligations. Having the intention to comply means that they have in mind a set of compliance behaviours, whether to start registering themselves as taxpayers or if they have already registered to start declaring their income by submitting their tax returns and eventually paying the tax liability. Also known as small business owners, their intention to comply is more likely on a voluntary basis as their income is not visible to the tax authority (Thomas 2018).

Attitude can enhance an individual's inclination to participate in a specific behaviour. More precisely, people are inclined to engage in behaviours that lead to positive results and are less inclined to engage in behaviours that lead to negative results. Attitude towards intention to comply pertains to the assessment made by gig workers regarding their willingness to comply with tax laws and regulations. Prior research has established that attitude has a positive and significant impact on the intention to comply (Razak & Bidin 2019; Taing & Chang 2021; Bhutta et al. 2019).

In the domain of tax compliance, attitude plays a pivotal mediating role in bridging the relationship between moral reasoning, perceived fairness, and the adoption of online tax services with taxpayers' compliance intentions. This mediating role is critical in understanding how various factors influence tax compliance intention. Attitude was found to be a significant mediator and exerted a strong influence on behavioural intention. Research has demonstrated that individuals who possess strong ethical and moral principles tend to have favourable attitudes towards tax compliance (Ghani et al. 2020; Md Fadzil & Che Azmi 2021; Taing & Chang 2021). These positive attitudes act as a mediator, translating high moral reasoning into strong tax compliance intentions. When taxpayers' internal ethical values align with compliance, their positive attitude towards the tax system reinforces their intention to comply with tax regulations.

Studies have shown that a fair tax system positively influences individuals' attitudes, which in turn promotes tax compliance (Faizal & Palil 2015). When taxpayers perceive that the tax system is fair and equitable, they develop positive attitudes towards compliance. This

mediating attitude ensures that perceptions of fairness translate into actual compliance behaviour. The adoption of online tax services simplifies tax-related tasks and enhances communication between taxpayers and tax authorities. Positive attitudes towards these services, driven by perceived ease of use, benefits, and compatibility, play a crucial mediating role (Do et al. 2022; Nguyen et al. 2024; Night & Bananuka 2019; Tallaha et al. 2014).

In the landscape of the gig economy, it is often advantageous for gig workers to proactively disclose their earnings from their freelance or independent contractor work. This necessity arises because, unlike traditional full-time employment, gig workers' income is not typically tracked and reported by third-party mechanisms. As highlighted by Adhikari et al. (2020), this dynamic places a significant emphasis on ethical considerations, fairness perceptions, and the adoption of online tax services within the mindset of gig workers. As a result, this premise encourages a positive attitude towards complying with tax laws and regulations.

- H<sub>4</sub> Attitude has a positive and significant effect on the intention to comply.
- H<sub>5</sub> Attitude mediates the relationship between moral reasoning and the intention to comply.
- H<sub>6</sub> Attitude mediates the relationship between perceived fairness and the intention to comply.
- H<sub>7</sub> Attitude mediates the relationship between the adoption of online tax services and the intention to comply.

The influence of moral reasoning, perceived fairness, and the adoption of online tax services on gig workers' attitudes plays a crucial role in shaping their tax compliance behaviour. These factors, alongside their attitudes, are likely to affect their intention to comply with tax regulations. Figure 1 presents the research framework, outlining the key constructs—moral reasoning, perceived fairness, online tax services, and attitude—and their relationships with tax compliance intention. This framework will guide the testing of the hypotheses and further explore the mechanisms driving gig workers' compliance behaviour.



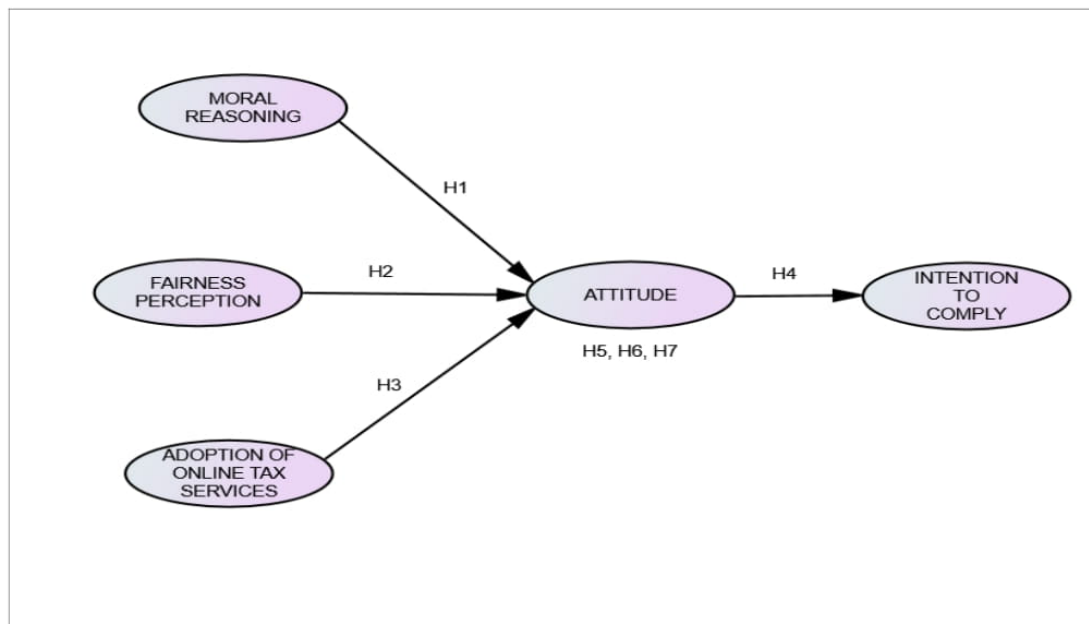


FIGURE 1. Research model

#### METHODOLOGY

This study utilised a quantitative methodology, employing a questionnaire to investigate the relationship between the decomposed components of attitude and intention to comply with tax laws and regulations among gig workers. The study examined gig workers who offer services to individuals or businesses and receive payments after completing jobs through digital platforms (Lepanjuuri et al. 2018). According to Heeks (2017) and Schmidt (2017), gig workers can be divided into two categories: physical gig workers, who are independent contractors providing location-based services like food delivery and e-hailing, and digital gig workers, who are freelance professionals specialising in jobs such as content creation and web development. The majority of gig activities were not directly reported to the tax authority and thus had to rely on the workers to report their income voluntarily (Thomas 2018). Therefore, a substantial proportion of gig economy activity remains unreported and not subject to taxation (Ogembo & Lehtonvirta 2020). Digital freelancers were thus selected as respondents in this study due to their higher capacity for generating income in comparison to other gig workers. Simple random sampling was employed as a sampling technique due to its appropriateness when a sampling frame was accessible and the target population was sufficiently homogeneous (Alias et al. 2021).

A total of 1,000 questionnaires were distributed by email to digital freelancers in Malaysia who were registered with the GLOW-PENJANA programme in order to achieve a study sample size of 500, as recommended by Hair et al. (2019). The respondents must have received any amount of income from gig activities within the past 12-month period and actively engaged with clients from

any digital platforms. The questionnaire was accompanied by a cover letter that outlined the purpose of the study and assured the respondents that their anonymity would be preserved. Participants were required to complete the questionnaire, and their responses were automatically stored in the database. Of the entire set of questionnaires distributed, 207 questionnaires were returned with a response rate of 20.7 per cent. The rate is deemed satisfactory and comparable to similar tax-related studies conducted in Malaysia (Faizal & Palil 2015; Rashid et al. 2021). Out of a total of 207 responses, five were disregarded due to the presence of straight-lining problems, thus resulting in 202 valid responses for analysis. The sample size of 202 is considered small, however, it aligns with the recommended range of 200 to 500 for conducting Structural Equation Modelling (SEM) analysis (Awang et al. 2023; Kline 2016; Schumacker & Lomax 2016; Sekaran & Bougie 2019).

The questionnaire used in this study was a structured, closed-ended instrument that was adapted from previous studies, with certain adjustments made to align with the specific research context. The source materials of the questionnaire are presented in Table 1. Common Method Variance (CMV) was considered in this study in order to address potential bias and ensure the validity of the findings. CMV refers to a systematic error variance that arises when variables are measured using the same source or method, potentially introducing biases in the relationships between constructs (Podsakoff et al. 2003). To assess CMV, Harman's Single Factor Technique was employed, which revealed that the largest factor explained 39.15 per cent of the total variance. This analysis helps confirm that CMV is not a significant concern in this study and mitigates any potential biases that could affect the results (Tehseen et al. 2017).

This study contains three distinct variables: moral reasoning, perceived fairness, and adoption of online tax services. Meanwhile, the dependent variable is represented by the intention to comply, with attitude acting as a mediator. The participants in this study were asked to rate their agreement with each statement on a 5-point interval scale. The scale ranged from 1, indicating

strong disagreement, to 5, indicating strong agreement. A pre-test involving four tax and academic experts was conducted to enhance the validity and reliability of the instrument. The questionnaire was distributed in both English and Bahasa Malaysia, following the feedback received from experts during the pre-test phase. Subsequently, a pilot study was conducted on a

TABLE 1. Source of questionnaire formation

Constructs	Number of items	Source(s)
Moral reasoning (MR)	6	Smart (2012)
Perceived fairness (FAIR)	5	Saad (2012) and Che Azmi and Perumal (2008)
Adoption of online tax services (OTS)	8	Soon et al. (2020)
Attitude (ATT)	6	Yusoff (2019)
Intention to comply (INT)	5	Mashadi (2016) and self-developed

group of 32 individuals working as digital freelancers.

The reliability of each construct was assessed using Cronbach's alpha values based on a pilot test. The results indicated that all values exceeded 0.6 (Julie Pallant 2020). The IBM Statistics SPSS software was utilised to perform a descriptive analysis of the demographic data of the respondents. SEM, conducted with the Analysis Moment of Structures (AMOS) software version 24.0, is an advanced statistical analysis method that addresses the limitations of traditional ordinary least square regression, particularly when dealing with latent constructs in a model (Awang et al. 2023). The AMOS software was utilised to conduct confirmatory factor analysis (CFA) in order to validate the measurement model of a construct, as well as to test the hypotheses in the path model (Fitirana et al. 2022; Awang et al. 2023).

## RESULTS

### BACKGROUND OF RESPONDENTS

According to the descriptive analysis (refer to Table 2), 55.4 per cent of the individuals were female, while 44.6 per cent were male. The majority of respondents, comprising 40.6%, fell within the age range of 31 to 40 years old. Additionally, 58.5% of the respondents were married. The sample consisted predominantly of Malays, accounting for 78.2% of the total. Chinese made up 9.9% of the sample, while Indians comprised 5.4%. The remaining 6.4% of the sample consisted of individuals from other racial backgrounds. Concurrently, the majority of respondents achieved a degree or professional level of education (50.5%), while the minority attained an

education level of SPM or STPM (6.9%). Regarding their status and length of service as digital freelancers, 59.4% of the respondents (120 out of 202) were part-time digital freelancers who had been involved in freelancing activities for more than four years (31.7%). Approximately 47.5% of part-time digital freelancers were employed in the private sector, and the majority of them earned less than RM3,000 per month, specifically 66.7%.

Nevertheless, a majority of respondents, specifically 51 per cent, indicated that their monthly earnings from freelance jobs were below RM1,500. Regarding the freelance work category, the majority of respondents (42.6%) were engaged in writing and translation, followed by creative and multimedia (32.7%), clerical and data entry (30.2%), sales and marketing (22.3%), professional services (17.8%), and software development and technology (10.9%). Of the respondents, only 34.2% have had multiple interactions with tax administrators, either seeking tax assistance through various channels (website, phone, or face-to-face) or having undergone a tax audit. Regarding the utilisation of online tax service platforms via MyTAX, a majority of respondents (59.9%) indicated that they utilised MyTAX for various tax-related tasks, including taxpayer registration (e-Daftar), tax return filing (e-Filing), and tax payment (ByrHasil). Ultimately, the respondents' characteristics align with the criteria of this study as they consist of individual taxpayers who are more likely to engage in under-reporting their income. Being digital freelancers, they had the freedom to report their income at their discretion, as it was not required to be reported by a third party.

TABLE 2. Respondent's profile ( $n = 202$ )

Demographic characteristics	Percentage of sample
Gender	
Male	44.6
Female	55.4
Age	
21-30 years	32.2
31-40 years	40.6
41-60 years	27.2
Marital status	
Single	39.1
Married	58.4
Widowed/separated/divorced	2.5
Ethnicity	
Malay	78.2
Chinese	9.9
Indian	5.4
Others	6.4
Status as digital freelancers	
Part-time	59.4
Full-time	40.6
Tenure as a digital freelancer	
Less than a year	20.3
1-2 years	28.2
3-4 years	19.8
More than 4 years	31.7
Average monthly income from freelancing activity	
Less than RM1,500	51.0
RM1,501 – RM3,000	39.1
RM3,001 – RM5,000	-
More than 5,000	9.9
Freelance work category	
Clerical data entry	30.2
Creative and multimedia	32.7
Professional services	17.8
Sales and marketing	22.3
Software development and technology	10.9
Writing and translation	42.6
Experience dealing with IRBM	
Never	53.0
Once	12.9
2 – 5 times	20.3
More than 5 times	13.9
Usage of online tax services platform (MyTAX)	
e-Daftar	27.2
e-Filing	54.5
ByrHasil	20.3
e-Kemaskini	15.8
EduZone	3.5
None of the above	40.1

# CONFIRMATORY FACTOR ANALYSIS

The analysis using the SEM method starts with the evaluation of the measurement model. Confirmatory factor analysis (CFA) was conducted to assess the reliability, validity, and fit of each construct in the research model, ensuring that the statements used in the questionnaire are reliable and valid. Prior to evaluating the reliability and validity of the constructs, essential modifications were implemented. Table 3 indicates that six items, highlighted in bold, are removed to enhance the

reliability and validity value (Hair et al. 2019), as their loading factors are below 0.6. Subsequently, a re-analysis of the CFA was conducted, revealing that all remaining items exhibited factor loadings exceeding 0.60, with the exception of item FAIR1, which had a loading of 0.58. Once the fitness indexes were attained, there was no need to remove the item from the measurement model (Awang et al. 2023). The instrument has a deletion rate of 20 per cent (6 out of 30 statements), which is deemed acceptable and suitable for further analysis (Awang et al. 2023).

TABLE 3. Factor loadings for measurement items

Item coding	Measurement items	Factor loading
MR1	I would not feel guilty if I did not report my income tax in my annual tax return.	0.52
MR2	For me to feel guilty for not reporting my income is good.	0.21
MR3	I believe I have a moral obligation to report all my income in my annual tax return.	0.92
MR4	Ensuring that I comply with my moral obligation is important.	0.79
MR5	Not reporting my income in my annual tax return would harm our society.	0.68
MR6	I feel that I have made a positive contribution to society through my taxes.	0.77
FAIR1	I believe the government utilises a reasonable amount of tax revenue to achieve social goals.	0.61
FAIR2	I believe everyone pays their fair share of income tax under the current income tax system.	0.58
FAIR3	I think the government spends too much tax revenue on unnecessary welfare assistance.	0.26
FAIR4	Personally, I believe that the income tax system is fair.	0.86
FAIR5	As a whole, the burden of income taxes is fairly distributed among the taxpayers.	0.87
OTS1	MyTAX will make it easy for me to get tax information and online services from different places every day by letting me sign in only once.	0.85
OTS2	I will find it easy to get MyTAX to do what I want to do, such as registering as a taxpayer via e-Daftar, filing income tax returns via e-Filing, paying taxes via ByrHasil and updating my tax profile via e-Kemaskini.	0.93
OTS3	Through MyTAX, it will be easy to access any tax-related information, such as brochures, slides, or posters, either through a website or mobile application.	0.86
OTS4	By using MyTAX, it will save my time without having to visit the IRBM office.	0.89
OTS5	The user-friendly features of MyTAX will fit into my workstyle in dealing with my tax matters.	0.91
OTS6	By using MyTAX, it will be compatible with the way I work in dealing with my tax matters.	0.93
OTS7	MyTAX will assist me in complying with tax laws and regulations.	0.85
OTS8	Overall, the MyTAX platform offers more advantages than disadvantages, which could help me be a good taxpayer.	0.89
ATT1	It is beneficial for me to report all my income to IRBM.	0.91
ATT2	It will be a pleasant experience to report all my income to IRBM.	0.81
ATT3	It is good practice to report all my income to IRBM.	0.91
ATT4	I will not enjoy reporting all my income to IRBM.	0.54
ATT5	It would be the right thing to do for me to report all my income to IRBM.	0.86
ATT6	It is worthless to report all my income to IRBM.	0.56
INT1	If I were Halim, I would register as a taxpayer.	0.91
INT2	If I were Halim, I would declare and report all my income, regardless of the amount earned.	0.89
INT3	If I were Halim, I would submit my tax return form annually.	0.92
INT4	If I were Halim, I would pay my share of the tax (if any).	0.91
INT5	If I am not sure about my responsibilities as a taxpayer, I will seek advice from IRBM or a tax agent.	0.81



The subsequent phase involves assessing the validity and reliability of the constructs. The determination of validity relies on the calculation of Average Variance Extracted (AVE), while the assessment of reliability is based on the evaluation of Composite Reliability (CR). The AVE signifies the degree to which different measures of the same construct converge. At the same time, CR indicates the extent to which the items measuring the constructs are reliable and internally consistent. The validity and reliability of the constructs are presented in Table 4. The recommended thresholds for CR and AVE are 0.6 and 0.45, respectively, as stated by Awang et al. (2023). The construct under examination demonstrates greater reliability and validity as the values of CR and AVE increase. All constructs in this study successfully met the requirements, as the values of CR and AVE exceeded the recommended thresholds.

Furthermore, Table 4 displays the construct correlations and the square root average variance extracted (SQAVE). The discriminant validity is deemed to be adequately met when the value of SQAVE (in bold) exceeds the value of construct correlations (Byrne 2016; Hair et al. 2019). Moreover, the correlations between the constructs must be less than 0.85. Therefore, these findings validate the reliability of the utilised instrument, as there are no issues related to multicollinearity among the constructs examined in the study. The fitness index is classified into three categories: incremental, parsimonious, and absolute index. One can assess the accuracy of a measurement by utilising global fitness indices such as the comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), Chi-square to degrees of freedom ratio (Chisq/df), and Root Mean Squared Error of Approximation (RMSEA), followed by an evaluation of reliability and validity.

TABLE 4. The Composite Reliability (CR), Average Variance Extracted (AVE) and discriminant validity index summary for all constructs

Constructs	MR	FAIR	OTS	ATT	INT	CR	AVE
Moral reasoning (MR)	0.80					0.88	0.64
Perceived fairness (FAIR)	0.42	0.79				0.83	0.62
Adoption of online tax services (OTS)	0.38	0.46	0.89			0.97	0.79
Attitude (ATT)	0.77	0.49	0.52	0.87		0.93	0.76
Intention to comply (INT)	0.62	0.30	0.52	0.68	0.84	0.95	0.70

The study selected the CFI and TLI for assessing incremental fit, the RMSEA for evaluating absolute fit, and the Chisq/df ratio for measuring parsimonious fit, as recommended by Awang et al. (2023). Hair et al. (2019) suggested that the RMSEA value should be below 0.08, the CFI and TLI values should exceed 0.9, and the relative chi-square should be less than 3.0. According to Table 5, the measurement model has successfully

reached the recommended level, making it suitable for structural analysis. Finally, the normality assessment was conducted to verify the normal distribution of the data for each item in the construct. The data in this study satisfied the normality assumption as indicated by the skewness values falling within the range of -1.5 to 1 (Tabachnick & Fidell 2017) and the kurtosis values falling within the range of -7 to 7 (Awang et al. 2023).

TABLE 5. Fit indices of the measurement model

Model	Absolute fit:	Incremental fit:		Parsimonious fit:
	RMSEA ( $< 0.08$ )	CFI ( $> 0.9$ )	TLI ( $> 0.9$ )	Relative Chi-Square
Measurement model	0.073	0.947	0.939	2.059

#### STRUCTURAL EQUATION MODELLING

The next phase of the analysis involves constructing a structural model that is built upon the measurement model presented in the preceding section. A structural model is made to demonstrate the correlation between latent constructs and to align the constructs based on the hypotheses of this study. The graphic in Figure 2 illustrates the standardised regression path coefficient between the constructs, specifically moral reasoning,

perceived fairness, adoption of online tax services, attitude, and intention to comply. Figure 2 displays the standardised outcome and squared multiple correlations ( $R^2$ ) of the structural model. The analysis reveals that moral reasoning, perceived fairness, and adoption of online tax services accounted for 66% of the variance in the attitude construct.

Table 6 displays the regression path coefficient for the relationship between three decomposed factors

of attitude and attitude with intention to comply. The findings indicate a robust positive relationship between moral reasoning and the adoption of online tax services in relation to attitude. The relationship is statistically significant, with a reported significance value (p) of 0.000 at a significance level of 0.01. Nevertheless, there exists a moderately significant positive relationship

between perceived fairness and attitude, with a reported significance value (p) of 0.052 at the 0.1 significance level. Moreover, there was a significant positive relationship between attitude and intention to comply, as indicated by the reported significance values (p) of 0.000 at the 0.01 significance level.

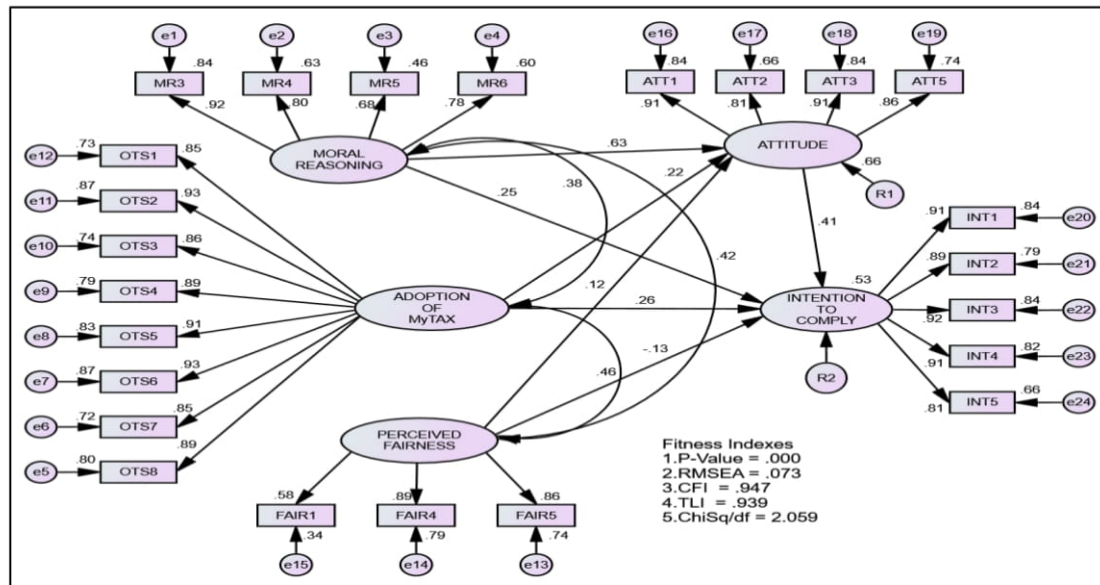


FIGURE 2. Structural Model

The causal relationship of each hypothesis is determined by whether the structural model accepts or rejects the direct effect, as indicated in Table 6. The hypothesis decision was determined based on the probability value (p-value) of each path. Therefore, a

hypothesis is considered supported when the p-value is lower than the predetermined significance level (alpha) of 0.1. Therefore, all the hypotheses regarding the direct effect were confirmed.

TABLE 6. The Composite Reliability (CR), Average Variance Extracted (AVE) and discriminant validity index summary for all constructs

Construct	Estimate	SE.	CR.	P	Hypothesis decision
ATT ← MR	0.629	0.064	9.846	0.000*	Supported
ATT ← FAIR	0.182	0.094	1.939	0.052***	Supported
ATT ← OTS	0.287	0.074	3.879	0.000*	Supported
INT ← ATT	0.370	0.092	4.011	0.000*	Supported

Note: \* significant at  $p < 0.001$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.10$ , MR = Moral reasoning, FAIR = Perceived fairness, OTS = Adoption of online tax services, ATT = Attitude, INT = Intention to comply

#### MEDIATION ANALYSIS

The study utilised the bootstrapping technique with maximum likelihood estimation (MLE) to examine the mediation effect of attitude on the relationship between moral reasoning, perceived fairness, adoption of online tax services, and intention to comply, as outlined in the research model. This study utilised the Maximum Likelihood Estimator (MLE) bootstrapping technique with 1,000 bootstrap samples. The confidence intervals

were set at 95% for both the bootstrap confidence interval and the bias-corrected confidence interval.

Tables 7, 8, and 9 display the findings regarding both the direct and indirect effects when assessing the significance of the mediator construct. The present study posits that attitude serves as the mediator construct. The output obtained from the AMOS software provided the results for bootstrapping estimates and p-values.

TABLE 7. The results of direct and indirect effects (Moral reasoning (MR) → Attitude (ATT) → Intention to comply (INT))

	Indirect effect	Direct effect
Bootstrapping estimate	0.261	0.251
Bootstrapping <i>p</i> -value	0.061***	0.027**
Result	Significant	Significant
Type of mediation	Partial mediation	

Note: \* significant at  $p < 0.001$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.10$

In  $H_5$ , MR was considered as the exogenous construct, while intention to comply (INT) was regarded as the endogenous construct. According to Table 7, the regression weight estimate for the indirect effect was 0.261. The probability of obtaining the bootstrap *p*-value for the indirect effect was 0.061. The regression weight for attitude as the mediator was found to be statistically

significant at the 0.10 significance level. The direct effect between MR and INT was found to be statistically significant ( $p$ -value = 0.027) at the 0.5 significance level. Thus, the attitude played a role in partially mediating the relationship between MR and INT, confirming hypothesis  $H_5$ .

TABLE 8. The results of direct and indirect effects (Perceived fairness (FAIR) → Attitude (ATT) → Intention to comply (INT))

	Indirect effect	Direct effect
Bootstrapping estimate	0.051	-0.296
Bootstrapping <i>p</i> -value	0.197	0.167
Result	Not significant	Not significant
Type of mediation	No mediation	

Note: \* significant at  $p < 0.001$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.10$

Concurrently, perceived fairness (FAIR) and INT were examined as the exogenous and endogenous constructs, respectively, in  $H_6$ . The regression weight estimate for the indirect effect was 0.051, as indicated in Table 8. The probability of obtaining the bootstrap *p*-value for the indirect effect was 0.197. The regression weight for

attitude as a mediator is not statistically significant at the 0.1 level. Furthermore, there was no significant direct effect observed between FAIR and INT. Therefore, it can be concluded that attitude does not act as a mediator between perceived fairness and intention to comply, leading to the rejection of hypothesis  $H_6$ .

TABLE 9. The results of direct and indirect effects (Adoption of online tax services (OTS) → Attitude (ATT) → Intention to comply (INT))

	Indirect effect	Direct effect
Bootstrapping estimate	0.093	0.263
Bootstrapping <i>p</i> -value	0.059***	0.003*
Result	Significant	Significant
Type of mediation	Partial mediation	

Note: \* significant at  $p < 0.001$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.10$

Similarly, the adoption of online tax services (OTS) and INT were also examined as the exogenous and endogenous constructs, respectively, in  $H_7$ . Table 9 reports a regression weight estimate of 0.093 for the indirect effect. The likelihood of obtaining the bootstrap *p*-value for the indirect effect was 0.059. Thus, the regression weight for attitude as the mediator was statistically significant at the 0.10 level. The relationship between the adoption of OTS and the INT was found to be statistically significant, with a *p*-value of 0.027 at a significance level of 0.05. Accordingly, the attitude played a role in

partially mediating the relationship between the adoption of OTS and the INT, and  $H_7$  is supported.

## DISCUSSION

In order to examine the tax compliance intention of gig workers engaged in the gig economy, the study employed a DTPB model that incorporated modifications to several variables. Moral reasoning, perceived fairness, and adoption of online tax services are the three exogenous constructs in the proposed model. Intention to comply

is the endogenous construct, and attitude serves as the mediator. Six of the seven hypotheses that were initially proposed were subsequently validated through the application of SEM, which confirmed the effect of these constructs on the intention of gig workers to comply with tax laws and regulations.

Evidently, the attitude of gig workers towards their intention to comply with tax laws and regulations was notably and favourably influenced by moral reasoning ( $H_1$ ), perceived fairness ( $H_2$ ) and the adoption of online tax services ( $H_3$ ). While gig workers were not obligated to comply with tax laws and regulations in the absence of third-party reporting and withholding tax (Adhikari et al. 2020), moral reasoning appears to have a significant impact on their compliance inclination (Md Fadzil & Che Azmi 2021). It is suggested that policymakers should consider establishing and advocating for ethical guidelines in the gig economy, given the substantial influence that moral reasoning has on compliance intentions. Promoting ethical tax practices among platforms and individuals may foster a societal environment that values and is accountable for taxes.

Additionally, one of the critical factors that could foster a positive attitude towards the intention to comply with tax laws and regulations is the adoption of online tax services. The provision of online tax services through a portal accessible with a single click would provide gig workers with an increased incentive to voluntarily disclose their income to the tax authority (Maphumula & Njenga 2019; Tallaha et al. 2014). Policymakers may consider making investments in tax platforms that are technologically advanced and user-friendly. Facilitating the smooth incorporation of online tax services within the gig economy can bolster adherence to tax regulations through the provision of streamlined and easily obtainable resolutions.

Although there is a significant relationship between perceived fairness and attitude towards intention to comply, the effect of this relationship is minimal. Given that gig workers lack experience in tax computation and find tax reporting to be complex, they perceive the tax system as burdensome and unfair. In order to promote voluntary compliance with tax obligations, the tax authority should proactively develop a tax simplification strategy specifically designed for this specific group of taxpayers.

Among gig workers in the gig economy, the results indicate a significant and positive relationship between attitude and intention to comply. The empirical findings are consistent with those of prior research concerning the intention of individual taxpayers to comply with tax regulations (Razak & Bidin 2019; Taing & Chang 2021; Bhutta et al. 2019). In light of the influence that attitude has on intentions to comply, policymakers may wish to consider the adoption of rewards or incentives to promote compliant conduct. Implementing positive reinforcement strategies, such as offering tax credits or

benefits in exchange for timely and accurate reporting, could potentially cultivate a more favourable disposition towards tax compliance in the gig economy.

Another aim of this study's endeavour is to examine the mediating role of attitude in the relationships between moral reasoning, perceived fairness, and adoption of online tax services with the intention to comply. An additional finding emerged suggesting that attitude not only acts as a mediator but also enhances the influence of moral reasoning and the adoption of online tax services on the intention to comply with tax regulations and laws. On the contrary, there was no mediating effect of attitude on the relationship between perceived fairness and intention to comply. As a result, this model exhibited partial mediation, with attitude emerging as a significant mediator that impacted the intention to comply among gig economy players.

#### RECOMMENDATIONS AND LIMITATIONS

Future researchers should undertake a more extensive study with a larger sample size to ensure the robustness and generalizability of the findings. Specifically, they should consider including all core attributes of the TPB—attitude towards behaviour, subjective norms, and perceived behavioural control—to provide a comprehensive understanding of tax compliance behaviour. Additionally, future studies should explore other influential factors such as income variability, financial literacy, the availability and effectiveness of digital tax tools, and the impact of regulatory changes on compliance. Investigating the role of psychological factors like trust in government institutions and the perceived fairness of the tax system could also offer deeper insights. By expanding the scope of the research model and incorporating a more diverse set of variables, future research can provide a richer, more nuanced picture of the factors that drive tax compliance behaviour within the gig economy context.

Although this study adds to the existing literature on the Decomposed Theory of Planned Behavior (DTPB) and provides practical insights for tax authorities in Malaysia, it is not without limitations. Firstly, due to resource constraints, the dataset for this study comprised solely 202 digital freelancers, which, while serving as a representative sample of the digital segment of the gig worker population, may not fully capture the diversity of the entire gig economy. Future research should aim to include a broader range of gig workers, encompassing not only digital freelancers but also physical gig workers such as those in logistics and delivery services (e.g. rideshare drivers, couriers) and home maintenance services (e.g. plumbers, electricians, cleaners). Including these additional segments would provide a more comprehensive understanding of tax compliance behaviour across different types of gig work and help identify any unique challenges or patterns specific to each category. Expanding the sample in this manner would



enhance the generalizability and applicability of the findings, offering more holistic and actionable insights for policymakers and tax authorities.

#### CONTRIBUTION OF THIS STUDY

This analysis offers valuable perspectives on enhancing taxpayer compliance through the implementation of more effective policy tools and administration strategies. The rapid progression of gig work necessitates that tax policies adopt a dynamic stance. As the gig economy consistently introduces innovative revenue streams and employment models, tax authorities must continuously adapt to keep pace. Ensuring that tax policies remain aligned with this evolving environment is critical for maintaining an equitable and efficient taxation system.

Governments face the challenge of balancing the need to foster innovation and create a conducive environment for the gig economy's growth with the necessity of ensuring robust and fair taxation. Achieving this balance requires novel policy solutions that recognise the unique attributes of gig work.

Promoting increased collaboration among stakeholders is crucial for effectively addressing the complexities of the digital labour market. Governments, digital platforms, and workers must work together to establish responsive policies, streamline reporting mechanisms, and simplify tax classifications. Through transparent dialogue and cooperative efforts, all relevant parties can develop a tax structure that accommodates the intricacies of the gig economy.

As the gig economy continues to redefine labour, taxation presents a complex challenge. Critical areas such as income reporting, worker classification, and tax policy adaptation require innovative approaches. Governments and stakeholders must collaborate to establish a tax framework that supports the gig economy's growth while upholding principles of equity and efficiency. Addressing these taxation intricacies through collective efforts is essential for creating a sustainable and equitable future for labour.

#### CONCLUSION

The empirical findings validate that, overall, gig workers in the Malaysian gig economy are significantly influenced by a positive attitude when it comes to their intention to comply with tax laws and regulations. This finding corroborates previous research conducted by Taing and Chang (2020), Soon et al. (2020), and Abdul Hamid et al. (2020). Furthermore, the significance of moral reasoning in influencing the attitudes of gig workers has been advocated by Berger et al. (2020) and Adhikari et al. (2020). This study reveals that both perceived fairness and the adoption of online tax services can influence attitudes. These findings support the claim that the perception of fairness in the tax system enhances attitude, as suggested

by Faizal and Palil (2015). However, they are in contrast with the findings of Journey et al. (2017).

Additionally, the utilisation of online tax services contributes to the simplification of shaping attitudes, as indicated by Maphumula and Njenga (2019) and Tallaha et al. (2014). Furthermore, the attitude played a role in mediating the connection between moral reasoning and the acceptance of online tax services, as well as the intention to comply with tax regulations. This study confirms that the Decomposed Theory of Planned Behaviour (DTPB) is an essential framework for understanding the intention of gig workers to comply with tax regulations. This theory is applicable not only in developed countries but also in developing countries. By utilising the DTPB, governments can enhance voluntary tax compliance among gig workers, thereby increasing their country's revenue. Empirically, accurate and timely disclosure of income helps gig workers avoid potential legal complications and penalties associated with tax evasion or underreporting. By adopting a transparent approach to income reporting, gig workers can also better manage their financial planning and stability. This proactive stance can further enhance their credibility and trustworthiness in the eyes of clients and tax authorities alike. Additionally, the use of online tax services and digital tools can simplify the process, making it easier for gig workers to stay organised and compliant. Embracing these practices not only promotes a culture of responsibility but also contributes to the overall integrity and sustainability of the gig economy.

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