

# The Effect of Tax Knowledge and Tax Sanctions on Tax Compliance: The Role of Tax Awareness as Intervening Variable

Retnaningtyas Widuri<sup>1</sup>, Michella Shan Christabel<sup>2</sup>, Evelyn Lavinia<sup>3</sup>

<sup>1,2,3</sup>Universitas Kristen Petra, Indonesia

## ARTICLE INFORMATION

Received 14 December 2023

Revised 26 June 2024

Publish 28 June 2024

### Keywords:

E-commerce MSME taxpayers, tax awareness, tax compliance, tax knowledge, tax sanction

### Corresponding Author:

widuri@petra.ac.id

DOI:

<https://doi.org/10.21107/infestasi.v20i1.23623>

## ABSTRACT

*This research aims to analyze the influence of tax knowledge and tax sanctions on tax compliance as well as the mediating role of tax awareness, related to the phenomenon that there are still many taxpayers who do not have compliance with their tax obligations, while a poor level of tax compliance can be a loss for the state. This research uses a survey method with a questionnaire base developed from several previous researchers, involving taxpayers who are MSME actors in the e-commerce sector spread across Indonesia. The number of respondents involved in this research was 117 people, with the criteria being taxpayers of MSMEs in the e-commerce sector. This research uses the Partial Least Square (Warp-PLS) application. The research results show that tax knowledge has a positive influence on tax compliance, while tax sanctions have no effect on tax compliance. Furthermore, it was also found that tax awareness was able to mediate the influence of tax knowledge and tax sanctions on tax compliance.*

## 1. INTRODUCTION

The wheels of the Indonesian economy are influenced by Micro, Small and Medium Enterprises (MSMEs) which are now one of the focuses of the government (Wijaya & Yanti, 2023). The growth rate of MSMEs in Indonesia is increasing every year (Edy et al., 2021). With the development of technology nowadays, internet use is also increasing. Through research results found by Wearesocial Hootsuite, which is a platform that presents data and trends that are needed to understand the internet, social media, as well as e-commerce behavior which is reported periodically every year, based on research that was released on February 15 2023, in the 2022 report, it is stated that internet users in Indonesia are 73.7% of the total population in Indonesia. With the increasing number of internet users, more and more people are using the internet as a platform to start MSMEs in the e-commerce sector. E-commerce is the exchange of goods, services and information via computer networks (Syarif & Nugraha, 2023), defined as the process of selling, purchasing, transferring or exchanging services, products or information via computer networks via the Internet (Sonata, 2019).

Tax regulations for e-commerce players are contained in Minister of Finance Regulation 210/PMK.010/2018 concerning Tax Treatment of Trade Transactions via Electronic Systems which has been in effect since April 1 2019, where this regulation applies to marketplace platforms, with regulations namely traders and Service providers who carry out transactions through the marketplace are obliged to fulfill their tax obligations regarding PPh in accordance with applicable regulations, namely paying final tax at a rate of 0.5% of turnover that does not exceed Rp. 4.8 billion in one year, also confirmed as a taxable entrepreneur (PKP) with a turnover exceeding Rp. 4.8M a year and carry out tax obligations on VAT in accordance with applicable regulations. Regulations regarding tax collection for business owners in Indonesia have been greatly simplified. Apart from having to pay taxes, another Indonesian government policy in increasing taxpayer compliance is by providing tax incentives to MSMEs where the incentives provided can reduce the tax burden for any party to encourage the growth of MSMEs in investing in certain sectors (Ginting, 2023).



However, regulations that are often ignored by MSMEs are tax issues (Wijaya & Yanti, 2023). Meanwhile, the MSME sector is very important for the development of the country's economy, and a poor level of tax compliance by MSME players can result in significant problems for the country. Tax payments have a huge influence on a country's economy. Tax is a mandatory levy that must be paid by taxpayers, with or without compensation from the government (Abdu & Adem, 2023). The Minister of Finance (Menkeu) stated that until February 2023, tax revenues, which amounted to 16.3% of the APBN target in 2023, had experienced growth of 40.35%. Taxes are very important to encourage economic growth and development (Bhalla et al., 2022). The problem of tax non-compliance is still a challenge and critical issue for many countries around the world, even though taxation is important and significant in the country's economic development (Agbetunde et al., 2022).

This is also a problem in Indonesia and can have a detrimental impact on the country, due to reduced tax revenues. Based on the report submitted by the Directorate General of Taxes (DJP) in January 2023, it was recorded that the realization of taxpayer compliance in reporting Annual Tax Returns (SPT) and tax payments had reached 83.2%, which was calculated by comparing the number of annual SPTs received in the year certain taxes, with the number of taxpayers registered as SPT taxpayers at the beginning of the year. Indonesia's tax ratio in 2022 will be at the level of 10.41% (Ortax, 2023), and the ideal tax ratio for a country should reach 15% according to the International Monetary Fund (IMF), so the level of tax compliance in Indonesia is still low. Tax compliance means that taxpayers have the ability and willingness to comply with applicable tax regulations that are based on law and ethics, and other situational factors that determine a particular time and place (Carsamer & Abbam, 2020). Tax compliance is an important factor in determining the capacity of the government, because tax compliance is the government's goal to increase tax revenues (Alm et al., 1990; Umar et al., 2019).

Stream of research focus on examining ways to increase tax compliance, and find that by increasing tax knowledge, tax compliance can be increased (Wong & Lo, 2015). Tax knowledge is very important for taxpayers, especially MSMEs, in complying with tax regulations, because taxpayers who have a better understanding of tax regulations will have greater awareness of the sanctions that will be received if taxpayers do not comply with these regulations (Ngoc et al., 2023). Compliance involves the payment of taxes by the taxpayer without any form of enforcement but mutual benefit from the taxpayer as a result tax compliance costs refer to all costs, other than actual tax obligations, borne by the taxpayer and third parties in the process of ensuring that such costs comply with the provisions of the law -relevant tax laws and requirements set by the relevant tax authorities, including tax compliance costs where this tax compliance refers to the act of accurately filing all required tax returns in accordance with the law and complying with tax reporting requirements (Ige et al., 2023). Awareness, knowledge, tax sanctions are factors in tax compliance (Sukma & Ismunawan, 2022).

This research aims to examine the influence of tax knowledge on tax compliance, the influence of tax sanctions on tax compliance, the influence of tax knowledge on tax compliance with tax awareness as a mediating variable, the influence of tax sanctions on tax compliance with tax awareness as a mediating variable. This research contributes to existing literature in the aspect of examining the role of tax awareness in increasing tax compliance through tax knowledge and tax sanctions. The difference between the variables used in this research and previous research is based on discussions in previous literature which are still not in depth, so in this research an in-depth discussion was carried out. The discussion in this research will be divided into several parts. The next section will provide a discussion of the literature review and theory for developing hypotheses, the next section will discuss the research methods carried out, the next section will contain the results of the tests that have been carried out along with related analysis, and the last section will contain conclusions, implications, limitations, and suggestions from this research.

## 2. LITERATURE REVIEW

Planned behavior theory proposed by Ajzen (1991) is social psychology which states that an individual's behavior is caused by the intention to behave which is caused by 3 things, namely attitude towards behavior, where a person can evaluate an activity as good or bad based on good consequences. or bad given. The behavioral control felt by the individual, where the level of ease or difficulty of an activity influences the actions taken. Subjective norms, where there are factors from external parties related to the social pressure

felt by individuals to carry out or not carry out the behavior in question (Ajzen, 1991). In general, the greater the intention to perform a behavior, the greater the likelihood of doing so (Taing & Chang, 2020). Based on Planned Behavior Theory, individuals who have a high attitude towards a behavior will show a strong intention to carry out that behavior (Daiyabu et al., 2023). Taxpayers will act or behave consciously and will consider all the information they have, as well as all the consequences of the actions taken. Planned behavior theory is used to connect and strengthen the influence between variables in this research.

Tax compliance is an individual or entity's compliance with applicable tax regulations. This includes a number of actions such as reporting income accurately, calculating tax liabilities correctly, submitting tax returns within the specified time limit, and paying taxes in amounts in accordance with applicable tax regulations (Alm, 2018). Apart from that, tax compliance also means that someone fills out the Income Tax Form by accurately declaring all income that can be taxed and paying all the tax owed without waiting for further action from the authorities (Night & Bananuka, 2020). In other words, tax compliance reflects the level of individual or entity compliance with their tax obligations in accordance with applicable rules and schedules.

The determining factors of tax compliance are found in five categories (Inasius, 2018). Determining factors from an economic perspective, namely tax audits, tax rates, tax audits, and perceptions of government spending. Institutional factors are the role of the tax authorities, simplicity of tax reporting and administration, probability of detection. Social factors, namely attitudes and ethics, justice and equity, changes in government policies and reference groups. Individual factors, namely personal problems regarding financial constraints and tax awareness (Taing & Chang, 2020). Taxpayer compliance in carrying out and fulfilling all tax obligations arises because there is an intention or desire to do so. Thus, planned behavior theory in this research explains the factors that influence taxpayers' attitudes and intentions which can influence tax compliance. Tax knowledge is the main factor in helping taxpayers to comply with tax regulations. Understanding tax requirements can influence a company's level of tax compliance because compliance will also influence the strategy of the business they run. Knowledge related to taxation includes the taxpayer's willingness to comply with tax laws or regulations. Thus, taxpayers who understand their tax obligations tend to be more compliant in paying taxes (Bhalla et al., 2022). The knowledge possessed by taxpayers includes their perceptions regarding fiscal trade-offs, morality, fairness, and tax complexity.

Tax knowledge includes the knowledge possessed by taxpayers regarding tax procedures, including how to calculate, pay and report taxes. This level of knowledge can influence the extent to which a taxpayer complies with tax regulations. In the discussion of the Theory of Planned Behavior, taxpayer behavior is influenced by intentions and internal motivation, this means that taxpayers who have in-depth knowledge of taxation are more likely to comply with tax regulations (Anggini et al., 2021). Knowledge has a significant impact on taxpayer compliance, because understanding tax regulations is the key to forming compliant behavior (Mumu et al., 2020). The presence of knowledge regarding tax regulations is a crucial factor, because it is difficult for taxpayers to comply if they do not understand the tax regulations. This tax knowledge plays an important role in increasing the level of taxpayer compliance in the tax payment process (Aini et al., 2023). In accordance with the Theory of Planned Behavior, where a person's behavior is influenced by intentions and internal motivation, it can be concluded that taxpayers with a high level of knowledge will tend to comply with tax regulations. With this tax knowledge, taxpayers can be reminded of their obligations to pay taxes. Through this, taxpayers who have comprehensive knowledge regarding tax payments will influence the level of compliance in paying taxes (Saptono & Khozen, 2023).

H1: Tax knowledge has a positive effect on tax compliance.

The theory regarding tax compliance believes that no individual has the willingness to pay taxes voluntarily (voluntary compliance), therefore individuals will always oppose paying taxes (risk aversion) (Kurniawan & Daito, 2021). This theory states that there are factors that influence tax compliance, including tax rates, fixed income, the possibility of conducting an audit, and the amount of sanctions that will be imposed. Tax sanctions are a guarantee that tax laws and regulations exist and are a preventive measure so that taxpayers do not commit violations and comply with applicable tax policies (Rianti & Hidayat, 2021). Tax sanctions can occur due to violations of tax laws and regulations, where the greater the error made by a taxpayer, the more severe the sanctions imposed will be. Legislative sanctions regarding taxes must be applied through the lens of justice and classify them as serious violations because it is necessary to build trust between citizens and the state regarding taxation where this is believed to increase voluntary tax compli-

ance (Carsamer & Abbam, 2023). In simple terms, tax compliance intention is the ability of taxpayers to fulfill their tax responsibilities in accordance with applicable regulations. Tax compliance intentions in the Theory of Planned Behavior are the factor that best explains voluntary compliance, this is because this variable is one of the two variables that influence tax compliance, while the other factor (perceived behavioral control) is more closely related to enforced compliance (Anugrah & Fitriandi, 2022). This is reinforced by previous research which found that attitudes, subjective norms and behavioral control have a significant effect on tax compliance (Anggraeni et al., 2021). In addition, tax sanctions can influence attitudes in this theory. If tax sanctions are applied fairly and effectively, individuals may be more likely to develop a positive attitude towards paying taxes, likewise the implementation of strict and effective tax sanctions can form a social norm that paying taxes is an obligation that must be obeyed by every citizen (Putra et al., 2021). This research shows that there is a positive relationship between strict tax sanctions and the level of tax compliance (Kurniawan and Daito, 2021; Ma'ruf and Supatminingsih, 2020; Rianti and Hidayat, 2021).

H2: Tax sanctions have a positive effect on tax compliance.

Tax awareness is a condition where a taxpayer has knowledge, accepts and obeys the tax regulations that are applied and is willing to comply with their tax obligations (Oktaviani et al., 2019). Taxes are the main source of state income, so increasing tax compliance and increasing public awareness are important priorities for the state (Gerger et al., 2020). Tax awareness leads to taxpayers' understanding of applicable tax regulations and certain tax issues (Taing & Chang, 2020). Tax awareness influences tax compliance significantly and positively (Sari & Saryadi, 2019). Having tax knowledge, which also means having tax awareness, is a factor in tax compliance (Bornman & Ramutumbu, 2019). Research shows that the mediating effect of tax awareness between tax sanctions and tax compliance has an indirect effect (Ega, 2018). Based on Planned Behavior Theory, the existence of tax awareness can influence the attitudes and intentions of taxpayers in carrying out their tax obligations.

H3: Tax awareness mediates the effect of tax knowledge on tax compliance.

H4: Tax awareness mediates the effect of tax sanctions on tax compliance.

### 3. RESEARCH METHOD

This research uses quantitative methods, because questionnaires generally do not cost a lot of money and take less time than interviews and observations, but also have a greater chance of not giving wrong responses (Sekaran & Bougie, 2016). However, the specific instrument for collecting the necessary data is a coding scheme. Therefore, it is very important to ensure that the coding scheme is good, then, the scheme is valid and reliable. Validity indicates the extent to which observations can accurately record the behavior of interest. Reliability refers to the consistency of observations, namely whether two (or more) observers, or the same observer on different occasions, observe the same events and achieve the same results (Sekaran & Bougie, 2016).

This research examines the influence of tax knowledge variables, tax sanctions, on tax compliance, with tax awareness as a mediating variable. The research was carried out by distributing a questionnaire containing a list of questions that had to be answered by respondents, provided that they were MSMEs in the e-commerce sector. Questionnaires were distributed to respondents directly or indirectly, namely through intermediaries, online, via social media. Each variable contained in this study uses a five-point Likert scale, with the number 1 indicating the respondent "Strongly Disagrees" with the statement on the questionnaire sheet, and the number 5 indicates the respondent "Strongly Agrees" with the statement on the questionnaire sheet.

The measurements in the questionnaire use several sources. For the measurement of the tax knowledge variable by Nurkhin, et al., (2018), taxpayers can know the benefits and functions of tax, taxpayers can understand how to fill out tax returns, taxpayers make tax payments via e-billing and report taxes via e-form, and taxpayers can have a NPWP, they are required to calculate, pay and report the tax owed. The measurement of tax sanctions is that taxpayers are given sanctions that are quite heavy so that they can comply with tax payments, tax sanctions are given to taxpayers who violate without tolerance and cannot be negotiated, criminal sanctions and administrative sanctions are imposed on violators of quite heavy rules (Noviantari & Setiawan, 2018). Meanwhile, measuring tax awareness according to Nurkhin, et al., (2018) is that taxpayers have the awareness to participate and support the development of the country, taxpayers have the awareness that delays in paying taxes will be a loss for the state, taxpayers are aware that taxes in

Indonesia are determined by The law and is coercive in nature, taxpayers must have a NPWP as a form of tax awareness and taxpayers register themselves actively and independently at the local Tax Service Office (KPP). Measuring tax compliance is that taxpayers carry out tax calculations correctly, taxpayers make tax payments and report tax returns on time, taxpayers make tax payments before audits are carried out, taxpayers carry out bookkeeping or recording of income (Nurkhin, et al., 2018).

Data analysis was carried out using the WarpPLS 8.0 application using the Partial Least Square technique. Partial Least Square is suitable for testing complex models that have many items, variables and relationships (Chin, 2010). Partial Least Square is a statistical tool that can be used to assess empirical data in measuring the level of tax compliance (Alshira'h and Abdul-Jabbar, 2020; Ya'u et al., 2020). There is a process that involves two stages in testing using Partial Least Square which includes a measurement model (outer model) and a structural model (inner model). The external model tests the reliability and validity of constructs and indicators, while the structural model calculates how significant the relationship is (Hair et al., 2017). Based on the literature review, a research model was created, namely in Figure 1, for this research. This research model discusses the influence of each variable, namely the variable tax knowledge, tax sanctions, on tax compliance, with tax awareness as a mediating variable.

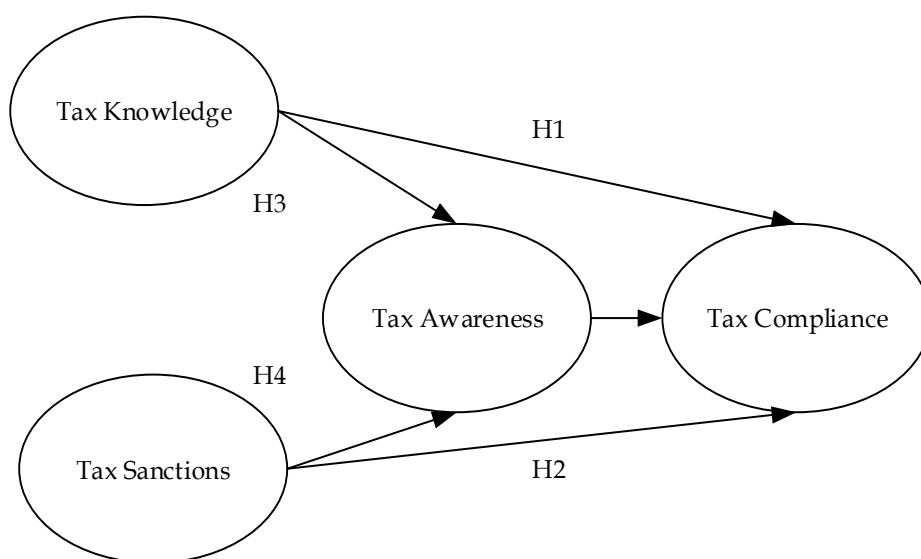


Figure 1 Research Model

Source: Processed Data, 2023

4. RESULT AND DISCUSSION

Based on the results of distributing questionnaires in this research, a sample of 117 respondents were collected who were individual taxpayers who were MSMEs in the e-commerce sector in Indonesia.

The demographic distribution of respondents is presented in the following table 1.

Table 1 Respondent Characteristics

Classification	Number of Respondents	Percentage
<b>Gender</b>		
Man	63	54%
Woman	54	46%
Total	117	100%
<b>Age</b>		
< 25 Year	28	24%
25 - 35 Year	33	28%
36 - 45 Year	16	14%
> 45 Year	40	34%
Total	117	100%

Education		
Elementary School	1	1%
Junior High School	1	1%
Senior High School	19	16%
Bachelor	91	78%
Master	5	4%
Doctor	0	0%
Total	117	100%

Source: Processed Data, 2023

Based on table 1, there are 54% male respondents, and 46% female respondents. Therefore, more male respondents took part in this research. If you look at the grouping based on the age of the taxpayer, respondents with an age range of less than 25 years are 24%, respondents with an age range of 25 - 35 years are 28%, respondents with an age range of 36 - 45 years are 14% and respondents with an age range of over 45 years was 34%, so it can be concluded that the highest level of respondent participation in terms of age in this study was over 45 years old. If we look at the level of education, 1% of respondents had elementary school education, 1% of junior high school, 16% of senior high school/vocational school, 78% of respondents had undergraduate education, and 4% of respondents had undergraduate education. So in this research, the respondents who participated most in this research were respondents with Strata-1 education.

Tests using the Partial Least Square technique in analyzing data through the Warp Partial Least Square (Warp-PLS) application were first carried out by obtaining results from direct and indirect influences, and showed that the tax compliance variable (Y) was influenced by tax knowledge (X1) , but is not influenced by tax sanctions (X2). The role of the tax awareness variable (Z) is proven to have an influence on tax compliance (Y) through tax knowledge (X1) and tax sanctions (X2). The validity test of the instrument from this research is shown from the results of the loading factor analysis of combined loading and cross-loading. The results of the outer loading analysis carried out on the Warp Partial Least Square (Warp-PLS) application show that the outer loading values of X1.1 are (0.563), X1.2 (0.823), X1.3 (0.842), X1.4 (0.883) , X1.5 (0.639), X2.1 (0.807), X2.2 (0.828), X2.3 (0.775), Z.2 (0.763), Z.3 (0.671), Z.4 (0.665), Z.5 (0.719), Y.1 (0.792), Y.2 (0.856), Y.3 (0.883), Y .4 (0.919), and Y.5 (0.720), with a p-value <0.001 for all indicators.

According to Hair et al. (2014), outer loading is a value that can explain the correlation between an indicator and a latent variable. The higher the outer loading value, the closer the relationship between the indicator and the latent variable. Outer loading values of more than 0.7 are acceptable. Based on the test results, indicators X1.1, X1.5, Z.3, Z.4 have outer loading values below 0.7. The test was then carried out again with the four indicators namely X1.1, X1.5, Z.3, Z.4 which had outer loading values below 0.7 eliminated.

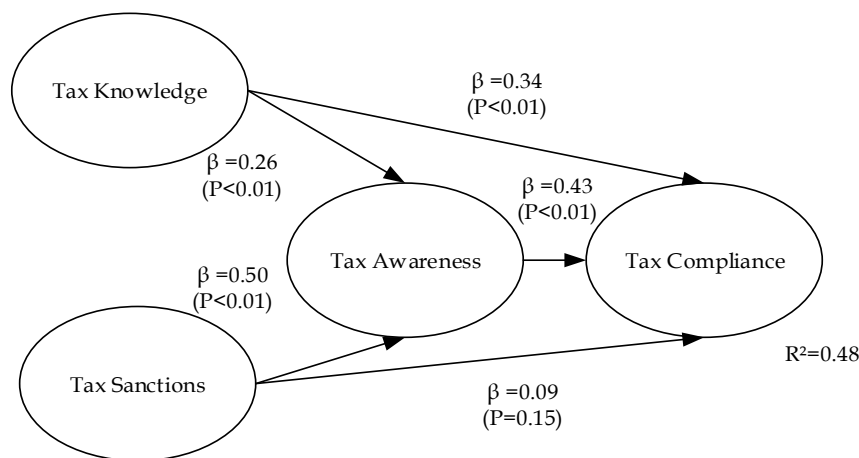


Figure 2 Partial Least Square Model for the influence of the variables Tax Knowledge, Tax Sanctions on Tax Compliance with Tax Awareness as a mediating variable.

Source: Processed Data, 2023

Figure 2 shows the research model with the four indicators with outer loading values below 0.7 which have been eliminated. The retesting carried out illustrates the relationship between variables in a measurement model. In the data provided, there is a relationship between variables X1, X2, Z, and Y. The outer loading values indicate the extent to which these variables contribute to the factor being measured. For example, in the analysis (X1,2), the outer loading value for X1 is 0.826, which indicates that X1 has a significant contribution to the factors measured in this analysis. Apart from that, the outer loading values for factors measured in this analysis. For outer loading data at X1,2 = (0.826), X1,3 = (0.911), X1,4 = (0.947), X2,4 = (0.836), Y,2 = (0.856), Y,3 = (0.883), Y,4 = (0.919), Y,5 = (0.720). Thus, outer loading data analysis provides information about the extent to which these variables contribute to the factors being measured, as well as describing the relationship between these variables in the measurement model used.

The model fit tests carried out include various model suitability and quality indices that are used to assess model effectiveness. The average path coefficient (APC) of 0.325 indicates a significant relationship between variables ( $P < 0.001$ ). The average R-squared (ARS) was 0.427, indicating that the model explained 42.7% of the variance in the measured factors ( $P < 0.001$ ). The average adjusted R-squared (AARS) was 0.415, which accounts for the number of predictors in the model ( $P < 0.001$ ). The average block VIF (AVIF) is 1.204, which is acceptable if less than or equal to 5, ideally less than or equal to 3.3. The average full collinearity of VIF (AFVIF) was 1.625, also within the acceptable range. Tenenhaus GoF (GoF) was 0.547, indicating a large effect size. Simpson's paradox ratio (SPR) is 1,000, meeting the acceptable threshold of 0.7 and ideally equal to 1. R-squared contribution ratio (RSCR) is 1,000, which is acceptable if greater than or equal to 0.9 and ideally equals 1. The statistical suppression ratio (SSR) and nonlinear bivariate causality direction ratio (NLBCDR) are both 1,000, meeting the acceptable threshold of 0.7. In testing the variable coefficient, the R-squared value for variable Z is 0.377, which means the model is able to explain around 37.7% of the variation in variable Z. Meanwhile for variable Y, the R-squared value is 0.477, which means the model is able to explain around 47.7% of the variation in variable Y. Value Adj.

The R-squared for variable Z is 0.366, which indicates that the model is able to explain approximately 36.6% of the variation in variable Z after considering the number of predictors. Meanwhile, for variable Y, the Adj value. The R-squared is 0.463, which indicates that the model is able to explain approximately 46.3% of the variation in variable Y after considering the number of predictors. The composite reliability value for X1 is 0.924, X2 is 0.868, Z is 0.845, and Y is 0.921. The higher the reliability value, the more reliable the construct in the model. Cronbach's alpha value for X1 is 0.875, X2 is 0.868, Z is 0.723, and Y is 0.891. The higher the alpha value, the more reliable the construct in the model. The average variances extracted value for X1 is 0.803, X2 is 0.654, Z is 0.646, and Y is 0.700. The value of average variances extracted for each variable is  $> 0.5$ , then it meets convergent validity. The higher the validity value, the better the construct in the model. Full collinearity VIF for X1 is 1.360, X2 is 1.432, Z is 1.933, and Y is 1.777. The higher the VIF value, the higher the level of multicollinearity in the model. A VIF value of less than 5 is generally considered acceptable. The value of full collinearity VIF for each variable is less than 3.3, so it is stated that there are no problems with collinearity in the research model. The Q-squared value for variable Z is 0.383, which means the model is able to predict around 38.3% of the variation in variable Z. Meanwhile for variable Y, the Q-squared value is 0.481, which means the model is able to predict around 48.1% of the variation in variable Y.

**Table 2. Hypothesis Testing**

Hypothesis	Relationship	$\beta$	P-value	Description
H1	TK ->TC	0.34	< 0.01	Supported
H2	TS -> TC	0.09	0.15	Not Supported
H3	TK -> TA -> TC	0.26	< 0.01	Supported
H4	TS -> TA -> TC	0.50	< 0.01	Supported

Note: TK = Tax Knowledge, TS = Tax Sanctions, TA = Tax Awareness, TC = Tax Compliance

Source: Processed Data, 2023

Based on hypothesis testing carried out on the Warp Partial Least Square (Warp-PLS) application, tax knowledge on tax compliance, tax knowledge on tax awareness and tax awareness on tax compliance each have a p-value  $< 0.01$ , which means tax knowledge on Tax compliance has an influence, tax knowledge has

an influence on tax awareness, and tax awareness has an influence on tax compliance. This means that the role of tax awareness in mediating is successful, so hypothesis 1 and hypothesis 3 are supported. Tax sanctions on tax compliance with a p-value of 0.15, therefore have no effect, this is where the role of tax awareness becomes a mediating bridge between tax sanctions and tax compliance so that it has an effect, so hypothesis 2 is not supported. Tax sanctions on tax awareness and tax awareness on tax compliance each have a p-value  $<0.01$ , which means that tax sanctions on tax awareness have an influence, and tax awareness on tax compliance has an influence. So, hypothesis 4 is supported.

Tax knowledge in this research was tested to find out how much knowledge taxpayers of e-commerce MSMEs have regarding taxation, in this case by filling in SPT, reporting SPT, and paying taxes owed. If taxpayers who are e-commerce MSMEs have good tax knowledge, this will increase their motivation to fulfill their tax obligations. The results of testing Hypothesis 1 state that tax knowledge has an influence on tax compliance. This finding proved to be in line with the findings by Owusu et al. (2022), which states that tax knowledge has an influence on tax compliance. With knowledge of taxation, the level of tax compliance of MSMEs in the e-commerce sector in Indonesia can be further improved. This finding is in line with the Planned Behavior Theory which states that taxpayers will act based on the information they have. If taxpayers have information in the form of knowledge about taxation, they can make the right decisions, motivating taxpayers to fulfill their tax obligations.

Tax sanctions in this research were tested to find out the role of tax sanctions in fulfilling tax obligations for MSMEs in the e-commerce sector and the results of testing Hypothesis 2 show that tax sanctions have no influence on tax compliance. This finding is proven to be inconsistent with findings by Syanti (2020) which shows that tax sanctions have an influence on tax compliance. Tax sanctions are a form of consequence given to taxpayers for violations in fulfilling tax obligations. So the tax sanctions implemented in Indonesia will not have any influence on the level of tax compliance of MSMEs in the e-commerce sector in Indonesia. The tax sanctions applied do not have a deterrent effect on taxpayers who commit violations.

Awareness of fulfilling tax obligations is important in implementing the self-assessment system. The results of testing Hypotheses 3 and 4 show that tax awareness can mediate tax knowledge and tax sanctions on tax compliance. This finding is proven to be in line with research conducted by Dwiyanti (2020) that tax awareness is able to mediate tax sanctions on tax compliance. This finding is not in line with research by Sari and Saryadi (2019) which states that tax knowledge cannot be mediated by tax awareness on taxpayer compliance. The presence of tax awareness can have a mediating influence on tax knowledge and tax sanctions on tax compliance.

Knowledge of taxpayers regarding NPWP registration, knowledge of tax rates, knowledge of rights and obligations as taxpayers, knowledge of sanctions for committing tax violations, awareness that taxes are a source of state revenue, awareness that delays in payments and inappropriate tax payments can be detrimental to the country, awareness that the taxes paid can support the country's development. When taxpayer awareness is high, they will have knowledge of taxes and tax sanctions, which will have an impact on taxpayer compliance.

## 5. CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS

Based on the findings in this research, the conclusion that can be drawn is that tax knowledge has an influence on tax compliance, and if there is tax awareness as a mediator, tax knowledge also influences tax compliance. Tax sanctions have no effect on tax compliance. However, if there is tax awareness as a mediator, then tax sanctions will influence tax compliance by e-commerce MSME taxpayers in Indonesia. The theoretical implication of this research is that having high tax knowledge has an influence on higher levels of tax compliance, the application of tax sanctions has no influence on tax compliance, tax knowledge and tax sanctions mediated by tax awareness have an influence on tax compliance. The practical implications of this research are as input for related parties, especially MSMEs in the e-commerce sector, in improving tax compliance.

This research has limitations, namely that the questionnaire was distributed online. This research uses a sample of 117 taxpayers who are MSMEs in the e-commerce sector in Indonesia, so it does not fully cover all taxpayers from various professions in Indonesia. This research only uses one mediating variable. Suggestions for future research in connection with the limitations experienced are that it can distribute questionnaires with wider coverage of areas and research objects, use other variables that were not used in this research, such as trust in the government, tax complexity can be carried out in order to deepen research on



tax compliance of actors. MSMEs in the e-commerce sector in the future.

## REFERENCES

- Abdu, E., & Adem, M. (2023). Tax Compliance Behavior of Taxpayers in Ethiopia: A Review Paper. *Cogent Economic & Finance*, 11(1).
- Agbetunde, L. A., Raimi, L., & Akinrinola, O. O. (2022). Moderating Influence of Religiosity on the Causality Between Taxpaying Attitudes and Tax Compliance Behavior of Entrepreneurial Firms in Nigeria. *International Journal of Ethics and Systems*, 30(2), 402–426.
- Aini, N., Indarto, B. A., & Jayanti, F. D. (2023). The Influence of Tax Knowledge, Tax Rates, Tax Penalties, Tax Amnesty And Voluntary Disclosure Programs on Tax Compliance of Ahas Employees In Semarang District. *Jurnal Ilmiah Bisnis, Manajemen Dan Akuntansi*, 3(2), 13–24.
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/https://doi.org/10.1016/0749-5978(91)90020-t)
- Alm, J. (2018). What Motivates Tax Compliance? *Journal of Economic Surveys*, 1–36. <https://doi.org/https://doi.org/10.1111/joes.12272>
- Alm, J., Bahl, R., & Murray, M. N. (1990). Tax Structure and Tax Compliance. *The Review of Economics and Statistics*, 72(4), 603–613. <https://doi.org/https://doi.org/10.2307/2109600>
- Alshira'h, A. F., & Abdul-Jabbar, H. (2020). Moderating Role of Patriotism on Sales Tax Compliance Among Jordanian SMEs. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(3), 389–415.
- Anggini, V., Lidyah, R., & Azwari, P. C. (2021). Pengaruh Pengetahuan Dan Sanksi Terhadap Kepatuhan Wajib Pajak Dengan Religiusitas Sebagai Variabel Pemoderasi. *Syntax Literate: Jurnal Ilmiah Indonesia*, 6(6), 6.
- Anggraeni, W., Dahlan, M., & Yudianto, I. (2021). Determinan Intensi Kepatuhan Wajib Pajak Pelaku Bisnis Online Berdasarkan Theory of Planned Behavior. *Syntax Literate: Jurnal Ilmiah Indonesia*.
- Anugrah, M. S. S., & Fitriandi, P. (2022). Analisis Kepatuhan Pajak berdasarkan Theory Planned Behavior. *Jurnal Info Artha*, 6(1), 1–12.
- Bhalla, N., Sharma, R. K., & Kaur, I. (2022). Effect of Tax Knowledge and Technological Shift in Tax System on Business Performance: A PLS-SEM Analysis. *Sustainability*, 14(16), 1–18. <https://doi.org/https://doi.org/10.3390/su141610217>
- Bornman, M., & Ramutumbu, P. (2019). A Conceptual Framework of Tax Knowledge. *Meditari Accountancy Research*, 27(6), 823–839. <https://doi.org/10.1108/medar-09-2018-0379>
- Carsamer, E., & Abbam, A. (2020). Religion and Tax Compliance Among SMEs in Ghana. *Journal of Financial Crime*, 27(2), 1359–0790. <https://doi.org/10.1108/JFC-01-2020-0007>
- Chin, W. W. (2010). How to Write Up and Report PLS Analyses. In *Handbook of Partial Least Squares* (hal. 655–690). Jerman: Springer.
- Daiyabu, Y. A., Manaf, N. A. A., & Hasbollah, H. M. (2023). Extending the Theory of Planned Behaviour with Application to Renewable Energy Investment: the Moderating Effect of Tax Incentives. *International Journal of Energy Sector Management*, 17(2), 333–351. <https://doi-org/2443/10.1108/IJESM-11-2021-0011>
- Dewi, S., Widyasari, & Nataherwin. (2020). Pengaruh Insentif Pajak, Tarif Pajak, Sanksi Pajak Dan Pelayanan Pajak Terhadap Kepatuhan Wajib Pajak Selama Masa Pandemi Covid-19. *Jurnal Ekonomika Dan Manajemen*, 9(2), 108–124.
- Dwiyanti, F. S. (2020). Pengaruh Literasi Pajak, Pemeriksaan Pajak dan Sanksi Pajak Terhadap Kepatuhan Wajib Pajak melalui Kesadaran Wajib Pajak Sebagai Variabel Intervening (Studi Kasus Pada UMKM Kota Semarang. *Thesis*. Semarang: Universitas Negeri Semarang.
- Edy, T. I., Yanti, L. D., Aprilyanti, R., & Janamarta, S. (2021). Analysis of the Compliance Level of Micro, Small and Medium Enterprises Taxpayers after the Implementation of Government Regulation Number 23 of 2018. *eCo-Buss*, 3(3), 103–109. <https://doi.org/10.32877/eb.v3i3.203>
- Gerger, G. C., Teuregeun, F. B., & Gercek, A. (2020). The Importance of Tax Literacy in Tax Compliance. In *Critical Debates in Public Finance* (hal. 57–75). New York: Peter Lang.
- Ginting, I. (2023). Smes Tax Aware: Analysis of the Obligation to Pay Taxes, Knowledge and Tax Incen-

- tives. *AKADEMIK: Jurnal Mahasiswa Ekonomi Dan Bisnis*, 3(1), 18–26.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. California: Sage Publishing.
- Hair, J. J., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial Least Squares Structural Equation Modeling (PLS-SEM). *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/ebr-10-2013-0128>.
- Ige, A. G., Igbekoyi, E. O., Dagunduro, & Emmanuel, M. (2023). Good Governance and Tax Compliance among SMEs in Nigeria: A Moderating Role of Socio-economic Factors. *International Journal of Economics, Business and Management Research*, 7(3), 69–73. <https://doi.org/https://doi.org/10.51505/IJEBMR.2022.61407>
- Inasius, F. (2018). Factors Influencing SME Tax Compliance: Evidence from Indonesia. *International Journal of Public Administration*, 1–13. <https://doi.org/10.1080/01900692.2018.1464578>
- Kementerian Sekretariat Negara. (2023). *Wapres Imbau Masyarakat Tidak Anti Bayar Pajak Akibat Kasus Pejabat Ditjen Pajak Sekretariat Negara*. Setneg.go.id. [https://www.setneg.go.id/baca/index/wapres\\_imbau\\_masyarakat\\_tidak\\_anti\\_bayar\\_pajak\\_akibat\\_kasus\\_pejabat\\_ditjen\\_pajak](https://www.setneg.go.id/baca/index/wapres_imbau_masyarakat_tidak_anti_bayar_pajak_akibat_kasus_pejabat_ditjen_pajak)
- Kurniawan, I., & Daito, A. (2021). The Effect of Tax Sanctions and Tax Authorities Services on Tax Compliance and Taxpayer Awareness as Moderation Variable (Survey on Corporate Taxpayers Domiciled in Tangerang). *Dinasti International Journal of Management Science*, 2(3), 371–380. <https://doi.org/https://doi.org/10.31933/dijms.v2i3.699>
- Ma'ruf, M. H., & Supatminingsih, S. (2020). The Effect of Tax Rate Perception, Tax Understanding, and Tax Sanctions on Tax Compliance With Small and Medium Enterprises (Msme) in Sukoharjo. *Business and Accounting Reaearch (IJEBAR) Peer Reviewed-International Journal*, 4(4), 363–370.
- Maxuel, A., & Primastiwi, A. (2021). Pengaruh Sosialisasi Perpajakan dan Sanksi Perpajakan Terhadap Kepatuhan Wajib Pajak UMKM E-Commerce. *Jurnal Riset Manajemen Dan Bisnis*, 16(1), 21–21. <https://doi.org/https://doi.org/10.21460/jrmb.2021.161.369>
- Mumu, A., Sondakh, J. J., & Suwetja, I. G. (2020). Pengaruh Pengetahuan Perpajakan, Sanksi Pajak, Dankesadaran Wajib Pajak Terhadap Kepatuhan Membayar Pajak bumi Dan Bangunandi Kecamatan Sonder Kabupaten Minahasa. *Going Concern: Jurnal Riset Akuntansi*, 15(2), 175–184. <https://doi.org/10.1142/S0217751X20500220>
- Ngoc, N., Dung, K., Tuan, D. A., Thi, B., & Thao, T. (2023). Model For Forecasting Tax Compliance Behaviors For Small and Medium Enterprises Owners Based on Owning. *Journal of Law and Sustainable Development*, 11(4), 1–23. h
- Night, S., & Bananuka, J. (2020). The Mediating Role of Adoption on An Electronic Tax System in the Relationship Between Attitude Towards Electronic Tax System and Tax Compliance. *Journal of Economics, Finance and Administrative Science*, 25(49), 73–88. <https://doi.org/https://doi.org/10.1108/JEFAS-07-2018-0066>
- Noviantari, P., & Setyawan, P. E. (2018). Pengaruh Persepsi Kualitas Pelayanan, Pemahaman, Persepsi Sanksi Perpajakan, Dan Lingkungan Terhadap Kepatuhan Wajib Pajak. *E-Jurnal Akuntansi*, 22(3), 1711–1740. <https://doi.org/https://doi.org/10.24843/eja.2018.v22.i03.p03>
- Nurkhin, A., Novanty, I., Muhsin, M., & Sumiadji, S. (2018). The Influence of Tax Understanding, Tax Awareness and Tax Amnesty Toward Taxpayer Compliance. *Jurnal Keuangan dan Perbankan*, 22(2), 240255. <https://doi.org/https://doi.org/10.26905/jkdp.v22i2.1678>
- Oktaviani, A. A., Juang, F. T., & Kusumaningtyas, D. A. (2019). The Effect of Knowledge and Understanding Taxation, Quality of Tax Services, and Tax Awareness on Personal Tax Compliance. *Indonesian Management Accountancy Research*, 16, 33–45.
- Ortax. (2023). *Rasio Perpajakan Tetap Dikerek*. Ortax.org. [https://datacenter.ortax.org/ortax/berita/show/18539#:~:text=Adapun%2C%20perolehan%20tax%20ratio%20Indonesia,Dana%20Moneter%20Internasional%20\(IMF\)](https://datacenter.ortax.org/ortax/berita/show/18539#:~:text=Adapun%2C%20perolehan%20tax%20ratio%20Indonesia,Dana%20Moneter%20Internasional%20(IMF))
- Owusu, M. Y., Bart-Plange, M. A., Koomson, T. A. A., & Arthur, M. (2022). The effect of Personality Traits and Tax Morale on Tax Evasion Intention. *Journal of Financial Crime*, 29(1), 272–292.
- Putra, I. M. W., AMP, I. N. K., & Sudiartana, I. M. (2021). Pengaruh Kesadaran Wajib Pajak, Sanksi Pajak, Sosialisasi Pajak Dan Penerapan E-Billing Terhadap Kepatuhan Membayar Pajak Wajib Pajak Orang Pribadi Di Kantor Pelayanan Pajak Pratama Badung Utara. *Jurnal Kharisma*, 3(1), 117–127.

- Rianti, R., & Hidayat, N. (2021). The Influence of tax Knowledge, Tax Justice, and Tax Sanctions on the Tax Compliance in Msme Taxpayers in West Bandung District. *South East Asia Journal of Contemporary Business, Economics and Law*, 24(1), 1.
- Santika, E. F. (2023). *Ini Rasio Kepatuhan Pelaporan SPT Pajak 2022, DJP Klaim Kenaikan Pada 2023*. Katadata.co.id; Databoks. <https://databoks.katadata.co.id/datapublish/2023/03/02/ini-rasio-kepatuhan-pelaporan-spt-pajak-2022-djp-klaim-kenaikan-pada-2023>
- Saptono, P. B., & Khozen, I. (2023). What Determines the Tax Compliance Intention of Individual Taxpayers Receiving COVID-19-Related Benefits? Insights from Indonesia. *International Journal of Sociology and Social Policy*, 43(111190-1217). <https://doi.org/https://doi.org/10.1108/IJSSP-02-2023-0045>
- Sari, I. K., & Saryadi. (2019). Pengaruh Sosialisasi Perpajakan dan Pengetahuan Perpajakan terhadap Kepatuhan Wajib Pajak Melalui Kesadaran Wajib Pajak sebagai Variabel Intervening (Studi pada Pelaku UMKM yang Terdaftar di KPP Pratama Semarang Timur). *Jurnal Ilmu Administrasi Bisnis*, 8(3), 126-135.
- Sekaran, U., & Bougie, R. J. (2016). *Research Methods for Business: A Skill Building Approach* (7 ed.). New York: John Wiley & Sons Ltd.
- Sonata, F. (2019). Pemanfaatan UML (Unified Modeling Language) Dalam Perancangan Sistem Informasi E-Commerce Jenis Customer-To-Customer. *Jurnal Komunikasi, Media dan Informatika*, 8(1), 22-31.
- Sundari, Ika, R., & et al. (2022). Does Tax Awareness Mediate Tax Amnesty and Tax Authorities toward Tax Compliance? *Quality - Access to Success*, 23(190). <https://doi.org/https://doi.org/10.47750/qas/23.190.29>
- Syarif, M., & Nugraha, W. (2020). Pemodelan Diagram UML Sistem Pembayaran Tunai Pada Transaksi E-Commerce. *Jurnal Teknik Informatika Kaputama*, 4(1), 64-70.
- Taing, H. B., & Chang, Y. (2020). Determinants of Tax Compliance Intention: Focus On The Theory of Planned Behavior. *International Journal of Public Administration*, 44(1), 62-73.
- Trihana, S., & Ismunawan, I. (2022). Pengaruh Kesadaran, Pengetahuan, Pelayanan Fiskus dan Sanksi Perpajakan terhadap Kepatuhan Wajib Pajak Orang Pribadi di Kota Surakarta. *Jurnal Inovasi Penelitian*, 2(12), 4025-4036.
- Umar, M. A., Derashid, C., Ibrahim, I., & Bidin, Z. (2019). Public Governance Quality and Tax Compliance Behavior in Developing Countries: The Mediating Role of Socioeconomic Conditions. *International Journal of Social Economics*, 46(3), 338-351. <https://doi.org/https://doi.org/10.1108/IJSE-11-2016-0338>
- Wijaya, V. S., & Yanti, L. D. (2023). Pengaruh Pengetahuan Perpajakan, Tarif Pajak, Mekanisme Pembayaran Pajak Dan Sanksi Pajak Terhadap Kepatuhan Wajib Pajak UMKM. *eCo-Buss*, 6(1), 206-216. <https://doi.org/https://doi.org/10.32877/eb.v6i1.611>
- Wong, R., & Lo, A. (2015). *Can Education Improve Tax Compliance? Evidence From Different Forms of Tax Education* (074-1415). <http://commons.in.edu.hkibswp/93>
- Ya'u, A., Saad, N., & Mas'ud, A. (2020). Effects of Economic Deterrence Variables and Royalty Rates on Petroleum Profit Tax Compliance in Nigeria: An Empirical Analysis. *International Journal of Energy Sector Management*, 14(6), 1275-1296.