# Measuring potential tax non-compliance in the Indonesian tax system: A meta-analysis

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#### **ABSTRACT**

This study aims to assess, firstly, the potential for taxpayers' noncompliance from previous studies that are dominant between tax avoidance and tax evasion due to active resistance in the taxation system in Indonesia. Secondly, it also tries to assess and parse the ability of the taxation system in Indonesia to prevent taxpayers from being disobedient. This study used a meta-analysis for the data analysis with the moderating variable regression equation of the taxation system. The results show that high tax sanctions and stable financial conditions can minimize the potential for tax non-compliance, while the quality of tax services, compliance costs, and tax socialization from 12 study samples have not been able to be used as factors to reduce the potential for tax non-compliance. This study also identifies the tendency of tax non-compliance behavior to be dominated by tax evasion. The originality of this study lies in using the meta-analysis method and using a dummy on the dependent variable to see the potential for noncompliance between tax avoidance and tax evasion. The implications of this study provide important insights for policymakers and government leaders in designing fiscal policies to minimize the social phenomena of tax non-compliance and build a tax compliance mindset and also redesign a tax system that is more credible, easy to understand, and prevents loopholes a system that the taxpayer can utilize.

#### ABSTRAK

Penelitian ini bertujuan pertama untuk menilai potensi ketidakpatuhan wajib pajak dari penelitian sebelumnya yang dominan antara penghindaran pajak dan penghindaran pajak karena resistensi aktif dalam sistem perpajakan di Indonesia. Kedua, menilai dan mengurai kemampuan sistem perpajakan di Indonesia untuk mencegah wajib pajak tidak patuh. Metode yang digunakan adalah meta analisis dengan variabel moderasi persamaan regresi sistem perpajakan. Hasil penelitian menunjukkan bahwa sanksi pajak yang tinggi dan kondisi keuangan yang stabil dapat meminimalkan potensi ketidakpatuhan pajak, sedangkan kualitas pelayanan perpajakan, biaya kepatuhan, dan sosialisasi pajak dari 12 sampel penelitian belum dapat dijadikan sebagai faktor untuk mengurangi potensi ketidakpatuhan pajak. Penelitian ini juga mengidentifikasi kecenderungan perilaku ketidakpatuhan pajak yang didominasi oleh penghindaran pajak. Keaslian penelitian ini terletak pada penggunaan metode meta-analisis dan penggunaan dummy pada variabel dependen untuk melihat potensi ketidakpatuhan antara penghindaran pajak (legal) dan penghindaran pajak (illegal). Implikasi dari penelitian ini memberikan wawasan penting bagi pembuat kebijakan dan pemimpin pemerintahan dalam merancang kebijakan fiskal untuk meminimalisir fenomena sosial ketidakpatuhan pajak dan membangun pola pikir kepatuhan pajak serta mendesain ulang sistem perpajakan yang lebih kredibel, mudah dipahami, dan dicegah, celah sistem yang dapat dimanfaatkan oleh wajib pajak.

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#### 1. INTRODUCTION

Some complex problems regarding tax noncompliance are still the root of decreasing tax revenue in almost all countries. Two aspects that affect non-compliance consist of the tax apparatus and the taxpayer. In the Theory of Planned Behavior (Ajzen, 1985; 2009), the behavior of taxpayers psychologically can be influenced by several variables such as economics, sociology, and psychology. Omong these problems, the government's problems need to be addressed wisely by the government because it is not easy to raise awareness and willingness to pay and report taxes. For years, the country the researchers live has not yet achieved the maximum tax revenue target. This phenomenon originates from the World Bank's report (Emerging and Developing Market Economies/EMDEs) regarding Indonesia's tax ratio, which is the lowest compared to other developing countries. The tax ratio data for Asia Pacific countries shows that Indonesia's (Gross Domestic Product/GDP) or revenue-to-GDP at 2019 recorded 0,4%.

World Bank data for 2020 regarding the realization of taxes on GDP, Indonesia is still quite low compared to other countries, the Philippines 0.6%, Japan 0.6%, Kazakhstan 0.8%, Korea 1.5%, Mongolia 2.5%, New Zealand 0.6%, Vanuatu 0.9%, Australia 0.9%, Samoa 1.2%, Cook Islands 1.5%, Solomon Island 1.8%, Tokelau 3.8% and Nauru 6.4%. Based on research conducted by the World Bank, Indonesia's tax revenue ratio is far below that of developing countries, for example, the Philippines, Vanuatu, Mongolia, and Khazatan.

The challenges of the Indonesian government in increasing tax revenues include: 1) Indonesian government revenues are still dependent on primary commodity prices. 2) The economic structure is dominated by the processing of natural resources (SDA) and the informal sector. 3) The low level of information technology (IT) skills and the knowledge capacity of staff at the Directorate General of Taxes make the tax base and tax compliance level very low. 4) Tax policies are not optimal and overlapping. Thus, according to these records, Indonesia is currently ranked 112 in the Paying Taxes Indicator. In addition, the complexity and unequal treatment of the tax system in Indonesia hurt the growth of inclusion.

Meanwhile, according to the Ministry of Finance's records, Indonesia experienced weaker tax revenue growth in the first semester

of 2019 by 2.68% compared to the previous year. This is not the same as the World Bank's 2020 record, the level of tax compliance in Indonesia is still lacking when viewed from the gap between the target and tax revenue.

Empirical research has demonstrated that non-compliance can be caused by (among other things) taxpayers' lack of knowledge and capacity to comply with the rules (Fjeldstad 2013). A study in South Africa by asserted for a bunch of small company owners that, even though having high tax morale (or innate drive to comply with taxes), their most significant difficulty is a lack of understanding in administering their tax problems. As well as, (Jayanto 2010) shows that the subjective norm factor of the taxpayer makes the attitude disobedient to regulations; therefore, a psychological approach is needed to increase compliance.

Researchers have spent much work on identifying procedures to ensure tax compliance, and studies suggest that boosting tax knowledge can improve. Felix Schmutz 82016); Kamleitner, Korunka, and Kirchler )2012) argued that it is vital to increase the amount of tax knowledge required for taxpayers to understand and handle the administrative and regulatory responsibilities of taxation. Given the premise that understanding the applicable tax legislation is necessary for compliance Henderson, and Gupta 2017), (Zaidi, Increasing taxpayers' financial literacy might be one method of encouraging tax compliance (Felix Schmutz 2016; Saad 2014). Therefore, it is considered a reasonable effort to conceptualize a tax knowledge framework, thereby increasing tax compliance behavior regarding tax compliance factors.

Some developing countries adopt a self-assessment system in their taxation system, including Indonesia; provide an opportunity for taxpayers to do tax avoidance. Taxpayers can carry out the potential for tax avoidance due to the options provided by the system to independently report, calculate, and deposit taxes. Tax avoidance is legal (tax avoidance), and illegal (tax evasion), between the two are difficult to distinguish by taxpayers, even if the aspects of departure are not known because of the complexity of tax regulations to understand.

This aspect of non-compliance is due to the taxpayer's perception of tax collection as a burden, and the responsibility affects behavior. Taxpayers have difficulty understanding tax regulations in fulfilling their obligations based on the self-assessment system (Isa 2014), even more so by enacting the Omnibuslaw Law in the taxation system in Indonesia, which conditions controversy for rejection from the public.

Based on the phenomena described above, this study uses meta-analysis to review the literature used by the sample (Borenstein et al., 2009) and (Blackwell, 2014), which can be considered in the redesign of the tax accounting system in Indonesia. This study is different from previous research if the previous research was a single study with the taxpayer object that identified and tested the factors that were thought to affect tax non-compliance. In contrast, in this study, the researcher tried to identify all the variables that affect tax noncompliance from various previous research results, which then grouped into tax avoidance and tax evasion. The potential that arises from the behavior and psychology of taxpayers and tax officials, the impact of the enactment of a taxation policy or system can be a predictor of a taxation system redesign strategy, so it is necessary to re-measure the potential for tax non-compliance in the taxation system.

The motivation for doing this study is due to the Ministry of Finance's Tax Ratio Indonesia that has decreased in 2019. The taxation system that adopts a self-assessment system provides tax avoidance opportunities for taxpayers, sharpens the behavior and psychology of taxpayers for non-compliance with taxes, and research on previous research gaps as the basis for analysis. So that researchers want to re-analyze the findings with meta-analysis to assess the potential for taxpayers' non-compliance of earlier studies that were dominant between tax avoidance and tax evasion as a result of active resistance in the taxation system in Indonesia and parsing the ability of the taxation system in Indonesia to prevent opportunities. Taxpayers for being disobedient.

This research project provides valuable insights for policymakers and government leaders in formulating taxation policies to minimize the social phenomena of tax noncompliance and build a tax compliance mindset and redesign a tax system that is more credible, easy to understand, and prevents system loopholes, which the taxpayer can end up making utilization.

The following sections of this study consist of section 2 explaining the theory study and hypothesis development, section 3 the research design using the synthesis and meta-analysis stages. Section 4 presents the results of the meta-analysis and interpretation of the effects to prove the development of the hypothesis, and Section 5 summarizes the research results, implications, and limitations of this study.

# 2. THEORITICAL FRAMEWORK AND HYPOTHESIS

### Theory of Planned Behavior

The Theory of Planned Behavior (TPB) was created by Ajzen (1985; 2009) in 1980 to forecast a person's intention to participate in a behavior at a specific time and location. This theory seeks to explain all actions over which humans have control. Behavioral intention is a fundamental component of this paradigm; behavioral intents are impacted by attitudes about the likelihood that the conduct will produce the desired effects and subjective assessments of the risks and rewards of those consequences.

According to TPB, behavior accomplishment is dependent on motivation (intention) and ability (behavior control). It differentiates three sorts of beliefs: behavioral, normative, and management. TPB is made up of six constructs that indicate a person's genuine control over their actions.

- a. Attitude It refers to the degree to which a person has a favorable or unfavorable evaluation of attractive behavior. They are taking into account the outcome of the behavior.
- b. Intention to behave This refers to the motivating elements that drive certain conduct, with the more significant the intention to do the activity. The possibility of doing this behavior is getting bigger.
- c. Subjective norms It relates to opinions regarding whether most people agree or disapprove of particular conduct. It has to do with a person's ideas regarding whether or not his peers and influential people believe he should participate in the behavior.
- d. Social norms It refers to a conventional rule
  of behavior inside a group or individual
  and a broader cultural environment.
  Within a group of individuals, social
  norms are called normative or standards.
- e. The power is felt It refers to the presence of circumstances that might either help or impede the execution of an activity.

Perceived power influences a person's perception of behavioral control over each of these variables.

f. Perceived behavior control - It is a person's sense of how easy or difficult it is to engage in appealing conduct. Perceived behavioral control fluctuates with each event and activity, resulting in a person's views of behavior control changing based on the circumstances.

An individual's intention to carry out a behavior where the intention is indicated by how strong a person's desire to try or how much effort is made to carry out the behavior is a significant factor in the Theory of Planned Behavior. In general, the more likely the behavior is achieved or carried out, the more intention to behave (Ajzen, 1985; 2009).

From the explanation above, the possible obstacles when behaving can arise from the environment and individuals themselves. Before taking action, an individual will convince himself of the results obtained from the action taken if it is related to the behavior of the taxpayer. This individual as a Taxpayer will have confidence about the normative expectations of others and motivation to fulfill these expectations (normative belief), which is related to the understanding of individual taxation, tax discrimination (aspects of the tax apparatus), and technology and tax information (operational expertise). When the knowledge of taxation is good, there is no tax discrimination, and better tax technology and data will motivate taxpayers not to commit tax evasion or not to comply with taxes (Gallagher 2005).

# **Attribution Theory**

The study of how ordinary people understand the reasons for behavior and occurrences is known as attribution theory. Attribution theory is concerned with how social sense utilizes information to come at a causal explanation for events, according to Fikes & Taylor (2002). It investigates the information gathered and how it is integrated to generate a causal judgment. He proposed two principal notions that became influential: dispositional (internal cause) and situational (external causation) attributions. Dispositional attributions attribute the reasons of behavior to a person's inherent traits rather than to outside circumstances. Situational attribution is the process of assigning the causes of behavior to some situations or events beyond one's control rather than to some

internal characteristics. For example, inner strength (within the individual) is as ability or effort, while external power (outside the individual), such as difficulties in work or luck.

As explained, attribution theory attempts to understand the cause of someone judging others depending on what meaning is connected to a particular behavior. This theory explains that conditions outside the individual that will later affect the individual to behave. Therefore, it can be interpreted that the individual will behave not because of his desire, but because of pressure or situation Fikes & Taylor (2002). If it is related to the taxpayers' behavior in ethics on tax evasion, it can be explained by external attribution theory (Franzoni 1999). Factors that influence this behavior coming from outside will make a person have a different perception of tax evasion due to external aspects that affect each individual differently.

## Theory of Deterrence

This theory is also known as prevention which consists of general prevention and unique prevention. The aim is for available prevention; it is expected that the community will not commit crimes. Specific prevention means that the sentencing is given a deterrent effect on the perpetrators. This theory assumes that humans are always rational and always think before acting to take good benefits. This deterrence effect can be divided into general deterrence and individual or special deterrence. For example the purpose of punishment for available prevention is expected to give a warning to the public so as not to commit a crime. The unique prevention is intended that the punishment imposed provides the perpetrator with a deterrence effect so that someone does not repeat the act, (Dularif et al. 2019).

In taxation, the term "compliance" is always accompanied by the term "non-compliance." The question is, which is more critical: increasing compliance or fighting non-compliance? Ideally, of course, the two things should go hand in hand and balance. Unfortunately, it is not easy to find a balance condition between the two different paradigms in practice.

The tax authorities who tend to choose to combat non-compliance (enforcement paradigm) seem to regard taxpayers as immoral, risk-averse, and individuals who always maximize utility (Obaid and Udin 2020). Thus, the model is to avoid taxes whenever it

is seen as more profitable. This approach is built on the economic-of-crime model applied to combat illegal acts because imposing penalties is considered the best step to promote regulatory-compliant behavior. Thus, the focus of the tax authorities is on eradicating noncompliance rather than increasing compliance.

On the contrary, there is also a tax authority approach that prioritizes increased compliance by emphasizing the role of tax administration as a facilitator and service provider for taxpayers (service paradigm). Research shows that this approach is proven to be successful in increasing the public's positive perception of tax authorities, although the impact on taxpayer compliance has not been established (Nurkholis, Dularif, and Rustiarini 2020)

In a hostile climate, a high level of strength from the tax authorities is needed to improve compliance. Thus, a policy that may be effective in these situations is to increase the likelihood of tax audits and the imposition of harsh sanctions. Conversely, in conditions of high public trust in the tax authority (synergetic climate), other variables will play a significant role. For example, knowledge, behavior, moral imperatives, justice, and democracy will help increase obedience. Meanwhile, heavy sanctions and intensive inspection may have negative consequences in a situation like this, such as eroding the taxpayer's tax morale (Tabbach 2003).

#### Rationality

According to Ritzer and Goodman (2004), rationality was put forward by Weber, that someone's mind sometimes cannot encourage to act rationally. Someone sometimes thinks that the behavior that other people see is irrational or unusual because it is out of the ordinary. However, everyone must also believe that each person's behavior will be different and that unique actions occur because of differences in environment, habits, etc., which social problems can cause. Someone' thought that only focuses on his own thoughts will make others make decisions. It seems that it is inappropriate. Thus, the study of the taxpayer must be improved to make it increase voluntary compliance. Of course, existing regulations must become a reference in reasoning for each individual to obey and comply with their tax obligations.

#### **Tax System**

The taxation system is a mechanism that regulates the obligations and rights of tax-payers. Also, the administrative procedures govern taxpayers, tax authorities, and policy-makers.

The tax system in Indonesia has undergone various changes or reforms. For example, since 1983 (Indonesian tax reform) has changed the tax regulations made by the Dutch colonial (PPs Ordinance 1925 and PPd 1944 Ordinance). Indonesia has also switched from an official assessment system to a self-assessment system for tax collection. Yet, the self-assessment system is the taxpayer's faith in calculating, paying, and reporting the amount of tax that should be payable based on taxation laws. The tax apparatus has to supervise, guide, and examine the results of taxpayer independence.

Tax reform in the taxation system in Indonesia has also undergone significant developments. As the parent of the Directorate General of Taxes, the Minister of Finance has approved the course of the reform through the Minister of Finance Decree Number 885/ KMK.03/ 2016 concerning the Formation of the Tax Reform Team on 9 December 2016. The focus of improvements made on information technology and databases. Then, the most recent reform is the existence of the Omnibus Law tax cluster, where the Omnibus Law in the field of taxation is only 28 articles but amending 7 Laws (UU), namely the Income Tax Law, the VAT Law, the KUP Law, the Customs Law, the Excise Law, the Regional Tax Law and regional levies and local government laws. This tax regulation amendment is divided into clusters as follows:

- a. The first cluster is on how to increase investment through lowering the corporate income tax (PPh) rate and interest income tax.
- b. The second cluster, the territorial system, is how foreign dividend income will be tax-exempt as long as it is invested in Indonesia. For foreign citizens (WNA) who are domestic tax subjects, their tax obligations are specifically for their household income.

- c. The third cluster concerns the tax subjects of Individuals (OP). Indonesian people who live abroad for 183 days can turn into foreign tax subjects, so they don't pay their taxes in Indonesia. On the other hand, foreigners who stay in Indonesia for more than 183 days become tax subjects in Indonesia and pay their taxes in Indonesia from their income originating from Indonesia.
- d. The fourth cluster, on how to improve tax compliance, namely rearranging sanctions and interest compensation. So far, the tax sanctions, if they are late, underpaid, or they commit violations, the penalty is that the interest is relatively high, 2% up to 24 months, so that the interest rate can reach 48%. Now, using the prevailing interest rates in the market, plus minor administrative sanctions. It is hoped that taxpayers (WP) will also feel more obedient to the law by crediting input taxes, especially agricultural goods.
- e. The digital economy, the fifth cluster is the taxation of electronic transactions that are made the same as regular taxes. For example, the designation of a digital platform for VAT collection and those who do not have a Permanent Business Entity (BUT) in Indonesia will still be taxable.
- f. The sixth cluster is tax incentives such as tax holidays, super deductions, tax allowances, Special Economic Zones (KEK), PPh for securities, and regional tax incentives from the local government.

Tax collection carried out by the government is also related to the behaviour of taxpayers. As noted, the taxpayers' behaviour includes all responses from the taxpayers to the taxation system implemented by the government. This response can be in the form of a passive or active response. Passive responses can be in the form of thoughts, feelings, and attitudes of the taxpayer, which generally cannot be observed directly. In contrast to the active response, the functional response from the taxpayer is a form of observable behaviour. Taxpayer's dynamic response can be in the form of Taxpayer compliance level in paying taxes following government regulations (Balaj & Mulaku-Balaj 2016). Taxpayer compliance as a form of dynamic behaviour is an important indicator measured by the government to determine state tax revenue. Likewise, the attitude of non-compliance can be an indicator

of the failure of government programs, in this case encouraging increased state revenue.

#### Tax Avoidance vs. Tax Evasion

The form of active tax resistance can be categorized into tax avoidance and tax evasion. Both are actions detected as tax non-compliant behavior, but there are differences between tax avoidance and tax evasion (Akram, Ilyas, and Alam 2017). A tax avoidance that violates ethics and regulations is categorized as tax evasion (Blackburn et al., 2012; Gamannossi degl'Innocenti & Rablen, 2020). In comparison, tax avoidance that does not violate regulations and is legal can be categorized as tax avoidance. If viewed in theory, tax avoidance is generally an act that violates ethics. Meanwhile, several other approaches say that tax avoidance is not a violation of ethics because selfishness is not a violation.

According to some experts, if the tax avoidance scheme is carried out legally and based on regulations, it will not be bad ethics. Also, according to Darussalam and Septriadi in DDTC website, tax avoidance is a transaction strategy designed to reduce the tax burden by exploiting a gap in a country's taxation legislation, such that tax specialists deem it legitimate since it does not violate tax law. Meanwhile, according to (Pratiwi and Siregar 2019), tax avoidance is all forms of activities that affect tax obligations, whether activities are allowed by taxes or special moves to reduce taxes. Usually, tax evasion is accomplished by taking advantage of tax law's flaws without breaching tax laws.

#### Tax Non-Compliance

Non-compliance is the opposite of obedience; each has opposite aspects of behavior. Suppose tax compliance means following a specification, standard, or applicable tax laws/regulations. Tax non-compliance can be interpreted as an act of refusal/deviation/deviation from compliance actions that can be carried out intentionally or unintentionally. The attitude of non-compliance by taxpayers is formed from positive beliefs and assessments of tax non-compliance (Jayanto 2010).

Tax non-compliance action by taxpayers can be carried out legally and well-planned, called tax avoidance (Fjeldstad 2013). However, there is also a lousy way to illegally break a tax evasion rule (Franzoni 1999). Tax avoidance/ evasion actions identified as potential non-compliance arise from various aspects, both

internally and externally from individuals. Internal factors that are subjective normative are very dominant in influencing disobedient behavior. However, demographic factors, economic factors, regulatory complexity factors, legal justice factors, and trust factors in the government can also determine the act of disobedience of an individual (Appah, Ebimobowei 2016).

#### **Hypotheses Development**

Service quality can be defined as the level of excellence and can also be objectively or subjectively evaluated. It measures how successfully a distributed service meets client expectations. Service providers frequently examine the level of service offered to their consumers to enhance service quality, discover issues, and achieve customer satisfaction. According to the Theory of Planned Behavior (Ajzen 2009), a vital component of this model is behavioral intention; Attitudes regarding the likelihood that the conduct would result in the intended result, namely the tax revenue objective, impact the behavior intention of tax officers in tax services. Meanwhile, the attribution theory states that external factors cause service quality because it is carried out by the tax authorities, so that it can affect the perception of taxpayers in taking attitudes and actions to satisfy payment obligations.

The taxpayer's attitude in seeing the service quality of tax officers affects compliance, which is ite decisive in making taxpayers' decisions in paying taxes. In the taxation sector, it can be interpreted as services given to taxpayers by the Directorate General of Taxes to assist taxpayers in meeting their tax requirements so that good services can overcome fraud in taxation. They improve the quality of service, and taxpayers will be satisfied, so they tend not to commit tax evasion. Research conducted by Alabede, Affrin, and Idris (2011), Hadiwijaya and Febrianty (2019) and Sukesi and Yunaidah (2020) states that the quality of tax services has a detrimental impact on tax evasion. These results are not in line with what was done by Jayanto (2010) arguing that the quality of service does not affect tax evasion. Therefore, the first hypothesis in this study can be formulated as follows:

H1: The worse the quality of tax services, the higher the potential for tax non-compliance.

Sanctions are legally imposed penalties that aim to enforce legal obligations. According

to Mardiasmo (2013:59), tax sanctions ensure that the terms of taxation rules (taxation norms) are followed; in other words, tax sanctions act as a deterrent (preventive) measure to ensure that taxpayers do not break taxation requirements. One of the theories relating to taxpayer compliance is the notion of deterrence. This theory is founded on the paradigm's qualities. This theory offers a model that takes into consideration the future costs and rewards of the chosen action. Legal penalties are possible costs resulting from illegal conduct committed. Their impression of legal certainty will influence their willingness to perform criminal conduct. Someone will endeavor to avoid any potential losses as a result of breaching the rules.

Research by Kuchumova (2018) and Rahmayanti, Sutrisno T., and Prihatiningtias (2020) shows that the higher tax sanctions have a significant effect on taxpayer non-compliance. Furthermore, in line with research by Goldswain (2002); Tabbach (2003); Sinnasamy et al. (2015); and Remali et al. (2018), researching taxpayer behavior that affects tax compliance intentions. In developing countries, it shows the findings of the number of sanctions that can affect non-compliant behavior intentions. The hypothesis formulation in this study is as follows:

H2: Higher tax sanctions can reduce the potential for tax non-compliance.

Taxpayers face two sorts of compliance expenses: monetary compliance costs and psychological costs. Gross financial compliance costs encompass both real money paid and opportunity costs experienced in complying with tax regulations regarding time and other resources. The psychological cost involves estimating the stress and anxiety of complying with tax laws that a person's mind sometimes cannot lead to acting rationally. If associated with the Theory of Planned Behavior (Ajzen, 2009), a taxpayer's Irrational actions are a perceived behavior control. The perceived behavior control of Taxpayers varies in each situation and action, resulting in a person having different perceptions about the cost of compliance that must be incurred depending on the situation (monetary or psychological).

Some academics evaluated the net cost of compliance, subtracted from the gross compliance costs, the cash flow gains, tax advantages, and management gains that arise from tax obligations (Coolidge, 2012; Tran-Nam et al., 2000; and Yesegatet al., 2017).

Taxpayers profit financially from utilizing tax received before the due date for payment to the tax authorities. Similarly, when computing income tax, taxpayers lower their tax owing by minimizing tax compliance expenses. Finally, more excellent accounting knowledge, for example, taxpayers can make better decisions. Tax compliance costs are the actual expenses of money paid in the process of complying with tax rules in this research. It also refers to a study conducted by Isa (2014); Ghani et al. (2020); Musimenta et al. (2019); and F Schmutz (2016) proving that the cost of compliance impacts taxpayers' perception of tax evasion ethics in a substantial and positive effect. If compliance costs are high, then the taxpayers' perception of tax evasion ethics will also be higher. Based on this description, the hypothesis is formulated

H3: *The higher the tax compliance cost, the higher the potential for tax non-compliance.* 

In the taxation system, socialization is an effort by the Directorate General of Taxes to provide understanding, information, and guidance to the public in general and taxpayers in particular regarding everything related to taxation and taxation legislation. Tax outreach activities are divided into three focuses to achieve its objectives: a. outreach activities for prospective taxpayers, b. socialization activities for new taxpayers, and c. socialization activities for registered taxpayers. Tax socialization can be achieved in two ways: a. directly and b. indirectly. Lack of socialization will impact the low level of public knowledge about taxes, which causes low public awareness to report and pay taxes, which may lead to a low level of taxpayer compliance. According to attribution theory (Fikes & Taylor, 2002), low public awareness is a behavior that occurs due to external factors that stimulate a taxpayer due to inadequate knowledge of taxation.

Research by Tarjo (2010) and Sukesi and Yunaidah (2020) shows that new taxation socialization significantly impacts taxpayer compliance by tax knowledge. Meanwhile, research conducted by Malinovsky (2017) does not affect taxpayer compliance. The following hypothesis is based on a survey of the literature.

H4: The more frequent socialization of taxation is carried out, the lower the potential for tax non-compliance.

The existence of tax incentive facilities can overcome the financial condition experienced

by taxpayers as part of an effort to expand comprehensive tax services to the public by removing various technical and non-technical obstacles as a form of programs run by the Directorate General of Taxes The effect that arises from the efforts of this financial institution is to increase the motives, desires, and behavior of taxpayers to use services with various attitudes and reactions given. Attitudes and reactions arising from this taxpayer can be related to the theory of planned behavior (Ajzen 2009). It is due to this theory that describes three main elements, namely: a) the tendency of a person's attitude to giving a positive or negative value to a problem at hand, b) the tendency for the inclusion of the role of other people and the environment towards changes in one's attitudes and beliefs, c) A person's strengths and weaknesses to eliminate doubts in deciding to manifest the desired by past experiences, current actual conditions, predictions of difficulties, or ease in dealing with other parties. These three elements have relevance to the behavior that arises from taxpayers in receiving tax incentives, which becomes hope and can provide leniency in tax payments and overcome taxpayer liquidity difficulties.

Bobrova, Stepanov, and Research by Tetin (2017) and Musimenta \*2020) shows that the financial condition is an internal factor that exists in the taxpayer's operations that affects the act of tax evasion. Control Belief which inhibits the behavior and perceptions of taxpayers, measured how strongly this behavior affects the actions of something and can also be used as a control tool to what extent the condition of the taxpayer affects taxpayer compliance. Likewise, with research by Mekonen (2015) and Alabede, Affrin, and Idris (2011), I is stated that the financial condition affects the taxpayer to determine whether it is necessary to comply with paying taxes or not. The high level of compliance is due to the taxpayer's financial condition in good condition, and vice versa. If the taxpayer's financial situation decreases or is wrong, the taxpayer will try to avoid paying taxes so that tax non-compliance will appear. From the description above, the following hypothesis is formulated:

H5: If the taxpayer's financial condition is stable, the potential for tax non-compliance will decrease.

The taxation system is a tax collection system related to the high and low tax rates

and the accountability of tax contributions needed to finance state administration and development. The government, with breakthrough, has made tax cluster rules contained in the Omnibus Law, one of which is about regulating tax rates. In the Indonesian tax system that adopts a self-assessment system, tax administration is expected to be carried out more neatly, controlled, simply, and easily understood by taxpayers. From understanding the Self-assessment System (OECD 2014), it is difficult to operate as planned and even misused, which provides the taxpayer confidence to compute, compute, pay, and personality the tax payable. The taxpayer's knowledge may impact the execution of the Self-assessment System and the punishments enforced, like whether the taxpayer knows how to compute, deposit taxes, and how much tax must be paid. The taxation system can be an external factor of the taxpayer, including tax services, tax sanctions, and tax socialization, while outside the tax system (non-tax system) includes internal taxpayers consisting of compliance costs and financial condition.

In connection with the taxation system of the results of research conducted by (Stojanovic and Djordjevic 2016); (Zaidi, Henderson, and Gupta 2017); (Prakoso et al. 2020); and (Prasetyarini, Rusmana, and Putri 2019) states that the taxation system has a significant effect with a negative coefficient on tax evasion. The research was also carried out by (Williams 2020) and (Umar and Masud 2020). It was found that

the taxation system had a significant positive effect on tax evasion. On the other hand, research conducted by Balaj and Mulaku-Balaj (2016); Chan, Lin Kenny Z., and Mo (2010), Gallagher (2005), and Iswahyudi (2017), shows that the taxation system has no significant effect on tax evasion. From the explanatory description of the taxation system as a means and infrastructure within the scope of formal law and previous research as a reference, the following hypotheses can be formulated:

H6: The taxation system strengthens the influence of tax service quality, tax sanctions, tax compliance costs, tax socialization, and financial conditions on potential tax noncompliance.

# 3. RESEARCH METHOD Model Specifications

This research is quantitative research with a Meta-Analysis design by collecting the results of previous studies to suggest more inclusive data results. According to Blackwell (2014) Meta-analysis research is carried out by combining research data searches, reviewing, and reviewing research data from findings on the internet and other sources. Quantitative Meta-Analysis is an approach to research with numerical calculations to create and extract information from several data that cannot be obtained using other methods. The synthesis flow of potential tax non-compliance in the taxation system is as shown in Figure 1.

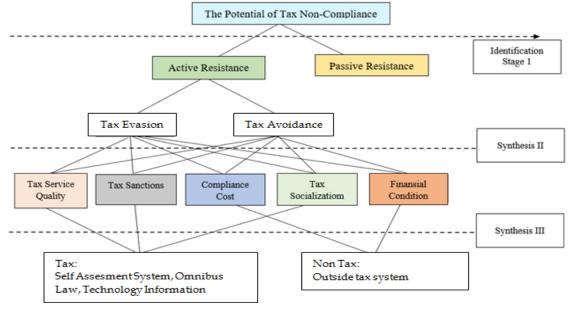


Figure 1
Synthesis Flow of Potential Tax Non-Compliance in the Taxation System

# Meta-Analysis of Tax Non-Compliance in Indonesia

A meta-analysis is a research approach that aims to address problems commonly found in quantitative social studies, including taxation. Many studies on the same topic tend to show different and even contradictory results for the same variables. This inconsistency makes it difficult for the readers to draw a general conclusion. Meta-analysis is an analytical technique to integrate a finding in previous research that discusses a particular topic (Elvik 2018). The findings of the previous studies will be subjected to statistical testing to conclude from different research results.

The samples of this research are scientific publications and other scientific works. The data is taken from scientific journals for the last 10 (ten) years to meet the requirements of statistical testing because research on noncompliance is rarely published online. In the period 2011 to 2020, the taxation system has undergone tax reformation volume II of the year (2009-2014) regarding increased internal control, 2016 regarding Tax Amnesty, and tax reformation volume III (2017-2020) regarding consolidation, acceleration, and continuity tax reform (most recently the Omnibus Law Cluster Taxation).

#### **Data and Measurement**

This study used a meta-analysis strategy by examining multiple studies in national publications/Google scholar and digital library repositories. Meta-analysis is quantitative because it uses numerical calculations. They used statistics for practical applications, such as compiling and extracting data from much impossible data with other methods (Elvik, 2018 and Borenstein et al., 2009). The most important criteria for facilitating data collection and processing in meta-analysis is coding. As a result, the instrument in this meta-analysis is a coding category sheet. The variables used for coding and creating the information needed to determine the effect of the independent variable on the dependent are the researcher's name and the year of the study for this purpose, media of publication, and research vvariable's.

The number of the samples of previous studies as identified have met the keywords or coding variables for the quality of tax services, tax sanctions, compliance costs, tax socialization, and financial conditions, as well as ordinal independent measurement scales and the dependent variable (tax

non-compliance) using a dummy, that is if identified. For example, tax evasion is given the number 1 if tax avoidance is assigned the number 0. Sources of Indonesian studies taken within ten years from 2010-2020 are from Google Scholar, an online library repository that can be accessed openly. On period of 10 years, only 12 studies were found on the topic of tax non-compliance with the same target variables.

Coding is the most important criteria for facilitating data collection and processing in meta-analysis. As a result, the instrument in this meta-analysis is a coding category sheet. The variables used for coding and creating the information needed to determine the effect of the independent variable on the dependent are the researcher's name and the year of the study for this purpose, Media of Publication, and Research Variables. The number of samples of previous studies that were identified that met the keywords or coding variables for the quality of tax services, tax sanctions, compliance costs, tax socialization, and financial conditions, as well as ordinal independent measurement scales and the dependent variable (tax non-compliance) using a dummy, that is if identified. For example, tax evasion is given the number 1 if tax avoidance is assigned the number 0.

#### **Econometrics Procedure**

It uses the effect size information to compare the effects of a variable in studies that use different measurement scales. The effect size value is taken from the person coefficient (r) value of each variable in the study. However, some research results do not use the r-value, so it is necessary to convert the statistical value, for example, changing the t value to r value (formula 1), then the average calculation will be carried out - average effect size for each study (formula 2). The conversion of statistical values uses a formula developed by Borenstein et al. (2009):

$$\mathbf{r} = \sqrt{\frac{\mathbf{t}^2}{\mathbf{t}^2 + \mathbf{df}}}$$

$$\bar{\mathbf{r}} = \frac{\sum (\mathbf{N} \times \mathbf{r})}{\sum \mathbf{N}}$$
(1)

When t: t value statistical count, df: degree of freedom, N: the count of research samples. The random effect meta-regression model is a simple case of the general linear mixed model

with the sampling variance known from each study, so by obtaining parameter estimates and inferential statistics from the effects of the combined model. In a meta-regression model with more than one covariate, it can be written as follows (Nindrea, 2016; Borenstein et al., 2009):

$$yi = \alpha \beta 1xi1 + \beta 2xi2 + \beta 3xi3 + \beta 4xi4 + \beta 5xi5 + vi + \varepsilon i....(3)$$

$$Zi=\alpha+\beta 1xi1+\beta 2xi2+\beta 3xi3+\beta 4xi4+\beta 5xi5+vi+\epsilon i.....(4)$$

$$\mid \epsilon i \mid = \alpha+\beta 6yi6.....(5)$$

When yi: the observed effect size value in the study-i, Zi: the value is hypothesized to be the moderating variable,  $\alpha$ : constant value,  $\beta$ : regression coefficient value, xi: the value is hypothesized as the independent variable,  $vi\sim N(0, \sigma\tau 2)$  dan  $\varepsilon i\sim N(0, \sigma i2)$ .

To prove the hypothesis whether the average effect size has an effect or not uses homogeneity. The steps in the homogeneity test are as follows:

$$\begin{aligned} H0 &= \theta 1 = \theta 2 = \cdots = \theta i \\ H1 &= \theta i \neq \theta j, i, j = 1, 2, \dots k \end{aligned}$$

Test results with a significance level of 5% and  $\chi^2$  (df;0,05). By criteria CI Min < r < CI Max, or between CI (Confidence Interval), the Chi-Square distribution table is often used to determine the critical area in the goodness of fit test, independence test, and homogeneity test. Decision making based on the Chi-Square value is as follows:

- a. If the calculated Chi-Square value> Chi-Square table, then Ho is rejected, and Ha is accepted
- If the calculated Chi-Square value <Chi-Square table, then Ho is accepted and Ha is rejected

#### **Publication Bias**

Another critical analysis should be carried out in a meta-analysis study, namely publication bias (Baribault et al., 2018). Publication bias is considered to be the validity of primary research that has been found at each step of the systematic review process. The publication bias test is carried out to anticipate the tendency that studies published by journals are only studies with significant results so that the effect size obtained is too high than the actual size. A publication bias test can be performed using the products from the funnel plot, the fail-safe N (FSN) value, and the trim and fill value. In this study, the publication bias test was carried out with the trim and serve matters closely related to the funnel plot to identify

the number of studies that should be omitted from the analysis to avoid publication bias and excessive interpretation of the effect size.

#### 4. DATA ANALYSIS AND DISCUSSION

This research seeks to obtain several journals published both those that have been published in several articles in national journals/Google scholar and digital library repositories. The studies used in this research include the digital library repository, E-Journal, and google scholar. After performing the sample selection procedure in Table 2, this study found 12 studies related to tax non-compliance as a sample. From table 2, due to the elimination process of taxation-related tasks, namely tax compliance and tax non-compliance, the ones that are relevant to the dependent variable are tax avoidance or tax evasion. All lessons meet the first criteria, namely scientific publications using Indonesian/English, the second discussing non-compliance (tax avoidance and tax evasion), and the three independent variables in scientific publications: tax service quality, tax sanctions, compliance costs, and tax socialization, financial condition. The studies as research samples were conducted in Indonesia because it was related to the moderating variable, namely the taxation system. If it is related to the taxation system, a policy system in a region will not be the same as in other areas; therefore, the tax system in Indonesia is adopted.

#### **Effect Size and Data Analysis**

The study of the sample articles contained in this study has a different contribution portion in the correlation of each variable. Each study uses another sample of companies and other measurements on each variable. Therefore, to represent and standardize the findings of the primary research, an effect size index (r) is used to show the magnitude of the relationship between the dependent variable (e.g., tax evasion) and specific independent variables (e.g., tax service quality, tax sanctions). According to Borenstein et al. (2009), this study calculates each study's effect size for each variable paired with tax non-compliance. There are various ways to get r-statistics from existing statistical data. There are no articles that directly present r-statistics in their statistical information. Most of the statistical data presented in the report are t-statistics, and several others show the coefficient value or p-value.

### **Tax Service Quality**

The results of the 12 total sample tested indicate that the quality of tax services is not significantly related to tax non-compliance, namely behavior (r= 0,314), with a 95% confidence interval between 0,263 – 0,295 (Table 1). These results indicate that the quality of tax services is not a determining factor for tax non-compliance, especially tax evasion behavior or tax evasion. Based on these findings, the results of 12 study sample studies have not been able to explain that potential tax non-compliance can occur due to poor tax service quality.

Calculation chi-square (X²k₁) produces a value of 39,594, while the critical importance of the chi-square table shows a value of 26,7568 at a significance level of 0.05 and a degree of freedom (df) 11. This value indicates the possibility of a moderating variable, namely the taxation system, that affects general meta-analysis findings. However, the moderating effect could not be determined because there were no variables compared with either the dependent or explanatory variables. Therefore, no sub-group test can be applied to the tax service quality variable, Ho is accepted, and Ha is rejected.

The quality of tax services that are getting worse can affect causing potential tax non-compliance, both in tax avoidance and tax evasion. Consistent with the Theory of Planned Behavior (TPB) (Ajzen, 1985; 2009), if

the attitude influences the behavioral intention of the tax officer in tax services, the worse it is likely that this behavior will have results that are not as expected, namely the target of tax revenue. Taxpayers who do not comply with taxes tend to inhibit tax revenues so that the tax revenue target is not achieved.

#### **Tax Sanctions**

Analysis of 12 research sample studies tested by meta-analysis showed the results (r = 0,300) with a confidence interval between 0,254 – 0,308 (Table 2) for the variable of tax sanctions. This value indicates a significant relationship between the variable of tax sanctions and tax non-compliance. Thus, this finding can explain that the tax sanctions variable is a factor that affects the potential for tax non-compliance both in terms of tax avoidance and tax evasion.

The chi-square (X²k<sub>1</sub>) a value of 40,314, the critical importance of the chi-square table shows a value of 28,210 at a significance level of 0,05 and a degree of freedom (df) 12. This value indicates that the possible effect of moderating variables, namely the taxation system, is identified to strengthen the influence of the variable. This possibility occurs because tax sanctions are part of a system of tax regulations. Thus, the subgroup test applied to the tax sanctions variable rejects Ho and accepts Ha.

Table 1
Tax Service Quality

					-				
	∑Ni	df	r	sr2	se2	sp2	se/sr %	Confidence Interval	X <sup>2</sup> k <sub>-1</sub>
General meta-analysis	900	11	0,314	0,036	0,010	0,026	27,782	0,263 - 0,295	39,594
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Source: Processed data

Table 2
Tax Sanctions

Tax Salictions											
	∑Ni	df	r	sr2	se2	sp2	se/sr %	Confidence	X <sup>2</sup> k <sub>-1</sub>		
								Interval			
General meta- analysis	1000	12	0,300	0,033	0,010	0,023	29,766	0,254 - 0,308	40,314		

Source: Processed data

Table 3 Compliance Cost

	r r												
	Σ Ni	df	r	sr2	se2	sp2	se/sr %	Confidence Interval	X <sup>2</sup> k <sub>-1</sub>				
General meta- analysis	804	10	0,219	0,024	0,011	0,013	46,568	0,194 - 0,197	21,474				

The deterrence theory provides an overview of the potential costs and benefits of actions taken by taxpayers. Possible legal sanctions are losses arising from illegal activities that Taxpayers have carried out. Thus, the taxpayer will try to avoid all kinds of potential losses due to violating the rules. These findings prove that H2, i.e., higher tax sanctions, can reduce the potential for tax noncompliance from the meta-analysis of the 12 studies.

### **Compliance Cost**

The meta-analysis findings of the 12 studies overall revealed that the results (r = 0.219) with a confidence interval between 0.194 - 0.197 (Table 3) for the compliance cost variable. These results indicate a relationship between the variable costs of compliance with tax non-compliance but not significant. The variable cost of compliance is not the cause of potential tax non-compliance from the 12 studies that became the research sample.

However, if you look at the results, chi-square (X²k₁) a value of 21,474, while the critical importance of the chi-square table shows a value of 25,188 at a significance level of 0,05 and a degree of freedom (df) 10. The calculated chi-square value is smaller than the chi-square table, meaning Ho accepted and Ha rejected. The decision criteria occur because there is no effect of the moderating variable of the taxation system that affects the variable cost of compliance with the variable of tax non-compliance. Compliance costs become a non-Tax variable or outside the system so that their effect can be strengthened or weakened on potential tax non-compliance.

In Theory of Planned Behavior (Ajzen, 1985; 2009) is behavioral control that is felt by taxpayers that are supposed differently in each situation and action, which results in a person having different perceptions about the compliance costs that must be incurred depending on the situation (monetary or psychological). Thus, from the 12 studies, it can be indicated that there are differences in perceptions regarding the cost of compliance.

H3, the higher the tax compliance cost, the higher the potential for tax non-compliance. The size of the high and low costs of compliance that cannot be measured in this study occurs due to studies that perceive differently.

#### Tax Socialization

The results of the available meta-analysis with a sample of 12 studies on the relationship between tax socialization and tax non-compliance found that the relationship between the two variables was not significant. The calculation shows the average correlation (r = 0.315) with a 95% confidence interval at 0.242 - 0.295 (Table 4). This finding indicates that 12 research sample studies show that the tax socialization variable does not affect the potential for tax non-compliance.

Then, results of chi-square (X²k₁) has a value of 51,998 while the critical importance of the chi-square table shows a value of 26,757 at a significance level of 0,05 and a degree of freedom (df) 11. If the calculated chi-square value is greater than the chi-square table, then Ho is rejected, and Ha is accepted. This value indicates that the possible effect of the moderating variable, namely the taxation system, is identified to strengthen the influence of the tax socialization variable on tax noncompliance. Based on attribution theory (Fikes & Taylor 2002), potential tax non-compliance can occur due to external factors that stimulate a taxpayer due to low tax knowledge.

#### **Financial Condition**

The results of this meta-analysis of 12 sample studies prove that the more often tax socialization is carried out, the lower the potential for tax non-compliance. Providing tax knowledge carried out by tax officials or the government will provide awareness and understanding of the importance of tax obligations so that tax compliance arises.

The general meta-analysis of 5 studies using financial condition as an explanatory variable as part of 12 study sample studies resulted in a mean correlation (r= 0,172) and a 95% confidence interval between 0,117 – 0,145

Table 4
Tax Socialization

	∑Ni	df	r	sr2	se2	sp2	se/sr %	Confidence	$(X^2k_{-1})$		
								Interval			
General meta- analysis	900	11	0,315	0,047	0,010	0,037	21,154	0,242 - 0,295	51,998		

(Table 5). These results indicate that from the 12 research samples, there is a relationship between the financial condition variable and the tax non-compliance variable. However, it is not significant, meaning that the financial condition is not substantial, causing the potential for tax non-compliance.

Calculation value chi-square (X²k<sub>1</sub>) of 30,851, which is greater than the chi-square table, 16,745. This value indicates the possibility of a moderator variable that affects the findings of the available meta-analysis. However, the moderator effect cannot be determined because there are no comparison of variable measurements, both dependent and explanatory variables, Ho is rejected, and Ha is accepted. Of course, this proves that the more stable the taxpayer's financial condition, the lower the potential for tax non-compliance as in the H5 formula.

The theory of planned behavior (Ajzen, 1985; 2009) describes the three main elements that relate to the behavior that arises from taxpayers in receiving tax incentives. It is an expectation and it can also provide concessions in tax payments and overcome taxpayer liquidity difficulties. The financial condition variable in the synthesis of stage 3 in the research design is non-Tax or outside the system. However, the financial condition is also an element of liquidation in tax payments. Of course, the value of a taxpayer's financial condition will also affect the level of compliance, especially during a financial crisis. The tendency of taxpayers' behavior with financial difficulties will provide potential opportunities for tax non-compliance.

### **Tax System**

Tax rates, self assessment system, and core system (technology) are the indicators in the tax

system. With those indicators, a well-designed tax system affects the level of tax compliance. This means that if the tax system is not good, it will tend to lead to tax non-compliance. From the results of the moderated meta-regression test, it shows an average correlation (0.315) with a confidence interval between 0.243–0.294 (Table 6). This value indicates that there is a relationship between the taxation system as a moderator between the independent variable and the dependent variable.

The researchers determined the moderating effect of the taxation system on the variables of tax service quality, tax sanctions, compliance costs, tax socialization and financial conditions, the chi-square value as in Table 6 that is 30,851. This value is more significant than the value of the chi-square table with a significance level of 0.005 and df 7 of 20.278. Based on the results of the meta-analysis, it can be concluded that there is a moderating effect of the influence of the independent variable on the dependent variable, thereforeso H6 is proven.

Self-assessment System implementation can be influenced by the taxpayer's knowledge and the sanctions applied, whether the taxpayer knows how to calculate, deposit taxes, and how much tax must be paid. In addition, the tax system can be an external factor from the taxpayer, including the quality of tax services, tax sanctions, and tax socialization, while outside the tax system (non-tax system) includes the taxpayers internal, which consists of compliance costs and financial condition. The analysis results show that the taxation system strengthens the influence of the variable tax sanctions and financial conditions but weakens tax service quality, compliance costs, and tax socialization. If viewed from synthesis

Table 5
Financial Conditions

Titulicial Collations											
	∑Ni	df	r	sr2	se2	sp2	se/sr %	Confidence Interval	X <sup>2</sup> k <sub>-1</sub>		
General meta- analysis	344	5	0,172	0,042	0,014	0,028	32,701	0,117 - 0,145	15,290		

Source: Processed data

Table 6 Taxation System

	∑Ni	df	r	sr2	se2	sp2	se/sr %	Confidence Interval	X <sup>2</sup> k <sub>-1</sub>
General meta- analysis	524	7	0,315	0,048	0,011	0,037	22,690	0,243 - 0,294	30,851

stage 3, tax sanctions, tax service quality, and tax socialization are included in the tax system, while compliance costs and financial conditions are included in the outside system. The taxation system can affect both internally and externally in a system. A credible tax system will build the mindset of taxpayers' tax compliance in Indonesia.

Meta-analytical research has the possibility of publication bias. The strength of recent research results may influence reported results, the editor's perspective to provide interesting results for readers, reviewer bias over the acceptance of articles into journals, often seeing the authors' prestige (Elvik 2018).

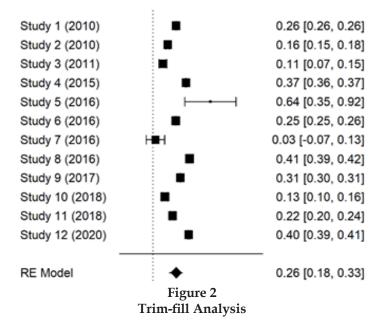
The quality of research methods may also differ between published and unpublished studies. A deeper analysis was conducted on the existence of publication bias, and this study included published and unpublished articles in the meta-analysis. Therefore, this study tries to determine whether there is a moderating effect of publication status on the relationship between potential tax non-compliance and explanatory variables. The publication bias test is carried out with trim and fills values closely related to the funnel plot to identify the number of studies that must be omitted from the analysis to avoid publication bias, and the over-interpretation of effect size shows the results as shown in Figure 2.

The results of the meta-analysis, presented in the forest plot, show the adjusted mean difference (SMD) for each study (black box) with a confidence interval (horizontal line). The vertical line indicates the mean difference= 0, meaning there is no difference between metageneral and meta-subgroup. The combined SMD is described as a diamond.

### 5. CONCLUSION, IMPLICATION, SUG-GESTION AND LIMITATION

The meta-analysis results of 12 studies that were used as research sample showed that the quality of tax services, compliance costs, and tax socialization were related to potential tax non-compliance but were not significant. Meanwhile, tax sanctions and financial conditions have a substantial relationship with potential tax non-compliance. Then the variables of the taxation system through tax rates, self-assessment system, and core system can strengthen the influence of poor tax service quality, perceptions of different compliance costs, and infrequent socialization of potential tax non-compliance. For high sanctions and financial stability, the effect of the tax system is weakened on potential tax non-compliance. This meta-analysis test also identified the results of the 12 sample studies that led to tax avoidance and tax evasion behavior, the results were eight studies that indicated tax noncompliance through tax evasion, and four other studies were conducted with tax avoidance.

It can be concluded that high tax sanctions and financial conditions can minimize the potential for tax non-compliance. Monetary policymakers can use these results in achieving their tax revenue targets by improving tax regulations and improving the economic/



financial conditions of the people in Indonesia so that a more credible tax system redesign is needed.

Meta-analysis researchers with tax noncompliance have a limited number of studies used as samples in this study. Several variables cannot be included in the selection because they do not meet the criteria, reducing the number of studies used. Some researchers do not present statistical data in their articles and do not include the measurements used to measure the independent variables. Therefore, some variables cannot be tested and reduce the number of data sources. Because research results often only show results following previous research, meta-analytical research like this will be challenging to get objective empirical evidence following the phenomenon being studied.

#### REFERENCES

- Ajzen, I. (2009). Constructing a TpB Questionnaire: Conceptual and Methodological Considerations. *Brief Description of the Theory of Planned Behavior*, 49:1335–74. https://doi.org/10.1002/hep.22759.
- Akram, Muhammad., Ilyas, M., and Alam, H. M. (2017). An Investigation of Ways of Tax Non- Compliance: The Case of Small Business Sector in Pakistan. *Journal of the Research Society of Pakistan*, 2(54), 199–209. http://pu.edu.pk/images/journal/history/PDF-FILES/14-Paper\_54\_2\_17.pdf.
- Alabede, James O., Zaimah Bt Zainol Affrin, and Kamil Md Idris. (2011). Tax Service Quality and Compliance Behaviour in Nigeria: Do Taxpayer's Financial Condition and Risk Preference Play Any Moderating Role?. European Journal of Economics, Finance and Administrative Sciences, 3 (35), 90–108.
- Amponsah, Stephen, Zangina Isshaq, and Daniel Agyapong. (2019). "Determinants of Tax Stamp Evasion in Rural Districts in Ghana: A Case of Twifu Atti-Morkwa and Hemang Lower Denkyira Districts. International Journal of Law and Management, 61(1), 73–90. https://doi.org/10.1108/

- IJLMA-08-2017-0190.
- Appah, E., Wosowei, E. C. (2016). Tax Compliance Intentions and the Behaviour of the Individual Taxpayer: Evidence from Nigeria." Research Journal of Finance and Accounting, 7(13): 1-9.
- Balaj, D, and T Mulaku-Balaj. (2016). Establishment and Development of Tax System-Disadvantages and Advantages of Taxes. The Case of Kosovo. *Journal of Advanced Studies in Finance*, 2(14), 117–29. https://doi.org/10.14505/jasf.v7.2(14).03.Article.
- Blackburn, K., Bose, N., and Capasso, S. (2012).

  Tax Evasion, the Underground Economy and Financial Development. *Journal of Economic Behavior and Organization*, 83(2), 243–253. https://doi.org/10.1016/j.jebo.2012.05.019.
- Blackwell, Calvin. (2014). A Meta-Analysis of Tax Compliance Experiments. Andrew Young School of Policy Studies Annual Conference on Public Finance Issues Tax, 4–19. https://icepp.gsu.edu/files/2015/03/ispwp0724.pdf.
- Bobrova, A. V., Stepanov, E. A., and Tetin, I. A. (2017). Development of Methods of Optimization of Non-Tax Payments for Decrease in Expenses of the Company at Implementation of the Foreign Economic and Resource Activity. Optimization of Non-Tax Payments. *Journal of Advanced Research in Law and Economics*, 8(6), 1711–1726.
- Borenstein, M., Hedges, L. V., and Rothstein, H. R. (2009). Introduction to Meta-Analysis. In *Introduction to Meta-Analysis*, First Publ, 13–14. West Sussex: A John Wiley and Sons, Ltd., Publication.
- Chan, K. Hung, K. Z. Lin Kenny Z., and Phyllis L.L. Mo. (2010). Will a Departure from Tax-Based Accounting Encourage Tax Noncompliance? Archival Evidence from a Transition Economy. *Journal of Accounting and Economics*, 50(1), 58–73. https://doi.org/10.1016/j.jacceco.2010.02.001.

- Coolidge, J. (2012). Findings of Tax Compliance Cost Surveys in Developing Countries. *EJournal of Tax Research*, 10 (2), 250–87.
- Dularif, Muh, T. Sutrisno, Nurkholis, and Erwin Saraswati. (2019). Is Deterrence Approach Effective in Combating Tax Evasion? A Meta-Analysis. *Problems and Perspectives in Management*, 17(2), 93–113. https://doi.org/10.21511/ppm.17(2).2019.07.
- Elvik, Rune. (2018). Meta-Analytic Methods. *Transport and Sustainability, 11, 425–47.* https://doi.org/10.1108/S2044-994120180000011022.
- Fikes & Taylor. (2002). Attribution Theory-a Theoretical Perspective. In *Universiteit Van Pretoria*, 37–58.
- Fjeldstad, Odd-helge. (2013). Taxation and Development a Review of Donor Support to Strengthen Tax Systems in Developing Countries. In WIDER Working Paper, 1–28. https://doi.org/http://hdl.handle.net/10419/80886.
- Franzoni, Luigi Alberto. (1999). Tax Evasion and Tax Compliance. *University of Bologna, Italy*, 52–94.
- Gallagher, M. (2005). Benchmarking Tax Systems. *Public Administration and Development*, 25(2), 125–44. https://doi.org/10.1002/pad.353.
- Gamannossi degl'Innocenti, Duccio, and Matthew D. Rablen. (2020). Tax Evasion on a Social Network. *Journal of Economic Behavior and Organization* 169,79–91. https://doi.org/10.1016/j.jebo.2019.11.001.
- Ghani, H., Nadiah, Abd. H., Soliha, S., Roszilah S. (2020). The Effect of Tax Knowledge, Compliance Costs, Complexity and Morale Towards Tax Compliance Among Self-Employed in Malaysia. Global Business and Management Research: An International Journal, 12 (1), 18–32.
- Goldswain, G. K. (2002). The Conduct of the Taxpayer Can the Conduct of the Taxpayer Affect the Level of the Penalty or Sanction Imposed in Income Tax Matters. *Meditari Accountancy Research*, 10(1), 71–85. https://doi.org/10.1108/10222529200200004.

- Hadiwijaya, H., and F. Febrianty. (2019). The Effect of Service Quality and Tax Sanctions on Service Satisfaction. *Etikonomi*, 18(2), 197–208. https://doi.org/10.15408/etk.v18i2.7428.
- Isa, K. (2014). Tax Complexities in the Malaysian Corporate Tax System:

  Minimise to Maximise. *International Journal of Law and Management*, 56(1), 50–65. https://doi.org/10.1108/IJLMA-08-2013-0036.
- Iswahyudi, H. (2017). Tax Reform and Noncompliance in Indonesia. *Journal of Indonesian Economy and Business* 32(2), 87-103. https://doi.org/10.22146/jieb.18153.
- Jayanto, P.Y. (2010). Faktor-Faktor Ketidakpatuhan Wajib Pajak. *Jurnal Dinamika Manajemen*, 2(1), 48–61. https://doi.org/10.15294/jdm. v2i1.2487.
- Kamleitner, B., Korunka, C., Kirchler, E. (2012).

  Tax Compliance of Small Business
  Owners: A Review. *International Journal of Entrepreneurial Behaviour and Research*, 18(3), 330–.351. https://doi.org/10.1108/13552551211227710.
- Kuchumova, Y. (2018). A Collateral Tax Sanction: When Does It Mimic a Welfare-Improving Tag?. *International Tax and Public Finance*, 25(4), 841–866. https://doi.org/10.1007/s10797-017-9480-1.
- Malinovsky, Alexsei A. (2017). Diversification of the Abuse of the Tax Payer Rights in the Comparative-Legal Aspect. *Journal of Legal, Ethical and Regulatory Issues*, 20(Special issue 1), 1–15.
- Mekonen, T. M. (2015). The Moderating of Financial Condition on Tax Compliance Behavior: Evidence from Mekelle City. Research Journal of Finance and Accounting, 6(15), 87–117.
- Musimenta, D. (2020). Knowledge Requirements, Tax Complexity, Compliance Costs and Tax Compliance in Uganda. *Cogent Business and Management*, 7(1). https://doi.org/10.1080/23311975.20 20.1812220.

- Musimenta, D., Naigaga, S., Bananuka, J., and Najjuma, M. S. (2019). Tax Compliance of Financial Services Firms: A Developing Economy Perspective. *Journal of Money Laundering Control*, 22 (1), 14–31. https://doi.org/10.1108/JMLC-01-2018-0007.
- Nurkholis, N., Dularif, Muh., and Rustiarini, Ni. W. (2020). Tax Evasion and Service-Trust Paradigm: A Meta-Analysis. *Cogent Business and Management, 7*(1). https://doi.org/10.1080/23311975.20 20.1827699.
- Obaid, M. M., and Udin, N. M. (2020). Corruption and Tax Noncompliance Variables: An Empirical Investigation from Yemen. *International Journal of Financial Research*, 11(4), 52–63. https://doi.org/10.5430/ijfr.v11n4p52.
- OECD. (2014). Fiscal Policy and the Social Contract. In Social Cohesion Policy Review of Vietnam, 179–202. Social Cohesion Policy Review of Vietnam. https://doi.org/10.1787/9789264196155-9-en.
- Prakoso, A., Wicaksono, G., Puspita, Y., and Kusumaningrum, N. (2020). The Effect Of Implementation Of E-Filing Systems On Personal Tax Compliance. *International Journal of Commerce and Finance*, 6(1), 166–180. https://doi.org/10.4108/eai.5-8-2020.2301125.
- Prasetyarini, A. N., Rusmana, O., and Putri, N. K. (2019). The Effectiveness Of Self-Assessment System on Tax Revenue. *Acta Universitatis Danubius*, 15(4), 293–305.
- Pratiwi, I. S., and Siregar, S. V. (2019). The Effect of Corporate Social Responsibility on Tax Avoidance and Earnings Management: The Moderating Role of Political Connections. *International Journal of Business*, 24(3), 229–48.
- Rahmayanti, N. P., Sutrisno, T., and Prihatiningtias, Y. W. (2020). Effect of Tax Penalties, Tax Audit, and Taxpayers Awareness on Corporate Taxpayers' Compliance Moderated by Compliance Intentions. *International Journal of Research in Business and Social Science*, 9(2), 118–24. https://doi.org/10.20525/ijrbs.v9i2.633.

- Remali, A., Satar, Mohd., Mamad, F., Abidin, N., and Zainuddin, S. (2018). Tax Knowledge, Tax Penalty and Tax Rate on Tax Compliance among Small Medium Enterprise in Selangor. *Global Business and Management Research*, 10(3), 12–24. www.smecorp.gov.my.
- Ritzer, G., and Goodman, D. J. (2004). *Teori*Sosiologi Modern. Alimandan. Jakarta:
  Kencana.
- Saad, Natrah. (2014). Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers' View. *Procedia-Social and Behavioral Sciences*. Elsevier BV. https://doi.org/10.1016/j. sbspro.2013.12.590.
- Schmutz, F. (2016). Measuring the Invisible: An Overview of and Outlook for Tax Non-Compliance Estimates and Measurement Methods for Switzerland. Swiss Society of Economics and Statistic, 152(2), 125–77.
- Schmutz, F. (2016). Measuring the Invisible: An Overview of and Outlook for Tax Non-Compliance Estimates and Measurement Methods for Switzerland. Swiss Journal of Economics and Statistics, 152(2), 125–177. https://doi.org/10.1007/BF03399425.
- Sinnasamy, P., Bidin, Z., and Ismail, S. (2015). A Proposed Model of Non-Compliance Behaviour on Excise Duty: A Moderating Effects of Tax Agents. *Procedia Social and Behavioral Sciences*, 211, 299–305. https://doi.org/10.1016/j.sbspro.2015.11.038.
- Stojanovic, M., and Djordjevic, M. (2016). The Role of Environmental Taxes in Serbian Tax System. *Ekonomika*, 62(4), 75–84. https://doi.org/10.5937/ekonomika1604075s.
- Sukesi, S., and Yunaidah, I. (2020). The Effect of Tax Socialization, Superior Service, and Service Quality on Taxpayers' Satisfaction and Compliance. *Journal of Economics, Business, & Accountancy Ventura*, 22(3), 347–59. https://doi.org/10.14414/jebav.v22i3.1698.
- Tabbach, A. D. 2003. Criminal Behavior, Sanctions, and Income Taxation: An Economic Analysis. *Journal of Legal Studies*, 32(2), 383–406. https://doi.org/10.1086/377050.

- Tarjo. (2010). Complexity and Socialization of Taxation Rule in Affecting the Taxpayer Accounting Behaviour in Indonesia. *The International Journal of Accounting and Business Society, 18*(1), 33–47.
- Tran-Nam, B., C, Evans., M, Walpole., and K, Ritchie. (2000). Tax Compliance Costs: Research Methodology and Empirical Evidence from Australia. *National Tax Journal*, 53(2), 229–252.
- Umar, M. A., and Masud, A. (2020). Why Information Technology Is Constrained in Tackling Tax Noncompliance in Developing Countries: Nigerian Tax Administrators' Perspectives. *Accounting Research Journal*, 33(2), 307–22. https://doi.org/10.1108/ARJ-11-2018-0205.
- Williams, C. (2020). Evaluating Public Administration Approaches to-wards Tax Non-Compliance in Europe. *Administrative Sciences*, 10(43), 1-15. doi.org/10.3390/admsci10030043.
- Yesegat, W. A., Coolidge, J., and Corthay, L. O. (2017). Tax Compliance Costs in Developing Countries: Evidence from Ethiopia. *EJournal of Tax Research*, 15 (1), 77–104.
- Zaidi, S., Henderson, C., and Gupta, G. (2017). "The Moderating Effect of Culture on E-Filing Taxes: Evidence from India." *Journal of Accounting in Emerging Economies* 7 (1): 134–52. https://doi.org/10.1108/jaee-05-2015-0038.