

## Influence Artificial Intelligence Technology For E-filing and Digital Service Tax (DST) in Tax Administration on Tax Compliance

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**Abstract:** This study uses multiple regression analysis. The results of this study indicate that: (1) Artificial Intelligence Technology For Income Tax E-Filing (PPh) has a significant positive effect to Tax Compliance, (2) Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh) has no significant positive effect to Tax Compliance. The aim of this study to know and analyze Influence Artificial Intelligence Technology for E-Filing Income Tax (PPh) and Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh) to Tax Compliance. The populations in this study were individual taxpayers of the Special Capital Region of Jakarta (DKI) with a sample of 150 respondents. The sampling technique in this study used Convenience Sampling.

**Keywords:** *Artificial Intelligence, E-Filing, Digital Services Tax* (DST), Tax Compliance

### I. Introduction

#### 1.1 Background

In 2019, the Directorate General of Taxation (DGT) as the administrator of Indonesian taxation has begun to implement the main pillars of reform, one of which is information technology and databases. The challenges of digital disruption in the economy can turn into opportunities with the responsiveness of tax authorities in improving tax technology infrastructure. It is hoped that the increase in the effectiveness and efficiency of the organization's business processes can be impacted as a whole. In addition, the tax authorities can position themselves better to assist and guide taxpayers in providing taxation services. One of the reform steps in information technology is the development of the DGT core tax system and other supporting systems. The development of a new administrative system will give stakeholders high expectations from the tax administration ecosystem in the post-reform era. On the other hand, taxpayers will expect ease of taxation services that are supported through digital or online services. Through digital-based tax administration, tax authorities will have new, higher capabilities to support big tax data analysis and support the productivity of organizational operations. (Alif Radix, 2020 -[www.pajak.go.id](http://www.pajak.go.id))

Artificial intelligence or Artificial Intelligence (AI) is a technology in the field of computer science that simulates human intelligence into machines (computers) to solve various problems and jobs as well as humans do. (Muchlisin, 2019 -[www.kajianpustaka.com](http://www.kajianpustaka.com))

Artificial Intelligence is artificial intelligence with simulations in machines that are programmed to resemble the process of human intelligence and mimic its actions, so that the system is now able to think similarly to humans systematically and more quickly, so that output can be generated immediately. These processes are included in learning ( acquisition of information and the rules for using information), reasoning (using rules to arrive at a predictable conclusion) and perception. The presence of this technology has started to erase and narrow some of the jobs for all companies. (<https://accounting.binus.ac.id/2019/>)

In this 21st century, tax administration is increasingly turning to electronic administration by using a variety of advanced technologies as data sources and tools to improve tax compliance. The use of artificial intelligence will be an important part of tax reform because it is believed to be able to increase the tax ratio, tax evasion and evasion, and encourage taxpayer compliance. Report of the Director of the OECD Center for Tax Policy and Administration (2017) states that the availability of digital technology in tax administration provides new

opportunities for tax administrators to better manage compliance, protect the tax base and reduce administrative burdens. The report also states that there has been a significant change in the tax administration process in which taxpayers are increasingly moving towards technology-based taxation processes. The use of e-filing for personal income tax (PPH) exceeds 70% and 85% for corporate income tax. (M. Wiryo, 2020 -<https://news.ddtc.co.id>)

E-filing is a service for sending or submitting annual Income Tax Returns (SPT) electronically which is done online and in real time via the internet on the online DGT website (<https://djponline.pajak.go.id>) or the provider page electronic SPT services (Ginting & Marlina, 2017)

Directorate General [Tax](#) The Ministry of Finance recorded that the submission of the 2019 Annual Income Tax Return (SPT) as of today, Monday, March 16, 2020, has reached 7.5 million. That way, the submission of the Annual Income Tax Return is more than the same period last year, namely 6.91 million. Submission of SPT uses more e-filing, reaching 6.67 million compared to the same period in 2019 of 6.17 million. From the use of e-filing, [taxpayer](#) with the SPT 1770 S form, the highest reported was 3.98 million followed by SPT 1770 SS with 2.45 million. In addition, taxpayers also use other means to report SPT, namely through e-Form which totaled 419,032, manual 306,464 and e-SPT 94,947. The number of e-Form users increased from March 16, 2019, which was recorded at 257,719, while submission of manual SPT has decreased because last year it was still recorded as 407,044. Previously, the DGT set a force majeure period and relaxed the limit for submitting the 2019 Annual Income Tax Return for Individual Taxpayers until 30 April 2020 without being subject to sanctions. The easing of the deadline from the previous 31 March 2020 is to provide convenience and certainty to individual taxpayers in submitting their Annual Tax Return. (Rr.Ariyani, 2020 -<https://bisnis.tempo.co.id>)

Minister of Finance (Menkeu) Sri Mulyani Indrawati along with the leadership of the Ministry of Finance submitted the 2019 Annual Personal Tax Return (SPT) report at the Head Office of the Directorate General of Taxes (DGT). As of March 9, 2020, explained the Minister of Finance, there was an increase of up to 34% of OP Taxpayers who had submitted their SPT. He explained that this year the progress was quite encouraging in terms of WP OP compliance. The public is increasingly aware that paying taxes is an obligation to care for this Republic. It is recorded that the annual SPT reports that have been submitted have reached 6.2 million. 34.2% of all reports were submitted through DGT e-filing. Mean while, those who submitted SPT manually decreased by 5%. This shows that DGT electronic SPT services are getting better. He thanked 6,a at the end of the month (March) the OP Annual SPT report will continue to increase. (<https://www.kemenkeu.go.id>)

The rapid digital transformation has led to the perception that existing international tax regulations are outdated and no longer relevant. This is because the regulation, which is more than a century old, has not properly accommodated the provisions on economic digitization. This weakness ultimately triggers opportunities for base erosion and profit shifting (BEPS) practices. This practice is related to the trend of tax avoidance which often relies on the excuse of not having a physical presence in a jurisdiction so that companies are not eligible to be taxed. The pretext has embarrassed many countries and called for the drafting of international rules that can ensure taxation rights in the jurisdiction where profits are created or economic activity takes place. This condition has led to the discussion on Digital Service Tax (DST) more and more. In simple terms, DST is a tax on certain gross income streams that digital giants receive (Tax Foundation, 2020). However, in essence, until now there is no definition that clearly defines what DST is. The reason is that the regulations on DST are currently being worked on by the OECD. The OECD itself is the organization that is trusted to oversee the negotiations of more than 130 countries that want to adapt the international tax system including the DST. (Nora Galuh, 2020 - <https://news.ddtc.co.id>)

One of the DGT's efforts in managing compliance risk is through the development of a comprehensive Compliance Risk Management (CRM) system in tax administration. Increasing the flow of quality information and data volumes from the implementation of the Automatic Exchange of Information (AEOI) and the disclosure of information on financial institutions will optimize taxpayer mapping support based on risk profiles. The availability of quality data is a strategic asset in increasing the effectiveness of taxpayer compliance and organizational business processes. The level of tax transparency will also increase along with digital-based taxpayer services, both transparency in tax administration and use of taxpayer data. Digitalization means that every tax procedure implementation will have digital traces or digital traces that strengthen control in every process. Digital transformation in tax administration will change the fundamentals of the taxpayer compliance process. Improving compliance in tax reporting and payment is one of the main goals of tax authorities in securing revenue. Even so,

how to approach to change the behavior of taxpayers so that they fulfill their tax obligations requires varied communication for each taxpayer. The CRM system developed by the DGT is an approach based on the taxpayer's risk profile so that the tax authorities can provide a more varied approach for each level of risk. A risk-based taxpayer approach is commonly used by many tax authorities in developed countries where it aims to change the behavior of taxpayers to comply with their tax obligations through proper communication. Technological innovations can provide taxpayers with a different experience in carrying out their tax compliance. Implementation of tax compliance which initially took a long time and was complex can be faster and easier for all taxpayers. The large population of Indonesian taxpayers will make the tax authorities very dependent on the level of taxpayer voluntary compliance to achieve revenue targets. (Alif Radix, 2020 - Technological innovations can provide taxpayers with a different experience in carrying out their tax compliance. Implementation of tax compliance which initially took a long time and was complex can be faster and easier for all taxpayers. The large population of Indonesian taxpayers will make the tax authorities very dependent on the level of taxpayer voluntary compliance to achieve revenue targets. (Alif Radix, 2020 - [www.pajak.go.id](http://www.pajak.go.id))

This research is a deeper study of research conducted by several previous researchers, including research by Devi Safitri (2020). This study found that the quality of tax authorities and understanding of tax regulations partially did not affect taxpayer compliance, but the implementation of the e-filing system had a positive effect on taxpayer compliance. taxpayer compliance. In addition, the socialization of taxation is not a moderating variable between the influence of tax authorities service quality, understanding of tax regulations, and the application of the e-filing system on taxpayer compliance, Sihar Tambun, et al. (2020) The results of this study indicate that the Technology Acceptance Model and Digital taxation have no effect. significant towards taxpayer compliance. Understanding of the Internet has a significant positive effect on taxpayer compliance. Moderation of Internet understanding of the influence of the Technology Acceptance Model has a significant positive effect on taxpayer compliance. Moderation of Internet understanding of the effect of digital taxation has a significant negative effect on taxpayer compliance, Risa Mayasari, et al (2020). The results of the study reveal that tax reform is facing increasing challenges in the digital era, which are not only challenges of increasing the capability and integrity of tax authorities, but also the challenge of integrating various changes that have occurred due to digitalization and the 4.0 industrial revolution. So that the right strategy in implementing tax reform in the digital era is to increase the trust and compliance of taxpayers through increasing the capability and integrity of tax authorities through modernizing the system and controlling tax human resources., and Suwardi, et al (2020) Digital taxation can also be done using a new concept that specifically regulates digital taxes. Indonesia imposed VAT for these foreign suppliers in mid-2020.

The purpose of this research is to prove empirically about:

1. Influence Artificial Intelligence Technology on E-Filing Income Tax (PPh) to Tax Compliance.
2. Influence of Upper Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh) to Tax Compliance.

## 1.2 Research Urgency

This research is expected to provide additional information and related theory development. Can be a scientific reference material about Influence Artificial Intelligence Technology For E-filing and Digital Service Tax (DST) In Tax Administration to Tax Compliance. It also relates to taxation and accounting information systems.

This research is expected to help the public, especially taxpayers, to understand digital tax administration reform and taxpayer compliance is increasing with the many conveniences in the digital era of taxation.

## II. LITERATURE REVIEW

### 2.1 Tax Compliance

Taxpayer compliance is the condition of the taxpayer who has fulfilled all tax obligations and exercised his taxation rights. Paying taxes in order to contribute to the current development in meeting its tax obligations is expected to provide taxes voluntarily. Given the Indonesian tax system that adopts a self-assessment system, taxpayer compliance is an important and absolute aspect. In the process, the trust will be in the taxpayer to calculate, pay and report their obligations. (Intan, 2020)

Tax Compliance is defined as a situation in which the taxpayer fulfills all tax obligations and applies their tax rights (Dwikora, 2013: 67). Based on Article 3 of the Minister of Finance Regulation No. 39 / PMK.03 / 2018 concerning Procedures for Introductory Tax Overpayment Refunds, certain criteria for Taxpayers that can be given Preliminary Refunds for overpayments of Income Tax and Value Added Tax are taxpayers who comply with 4 (four) criteria, namely: 1) on time in submitting SPT; 2) do not have tax arrears for all types of taxes, except for the tax arrears that have obtained a license to pay taxes in installments or postpone; 3) the financial report is audited by a public accountant or government financial supervisory institution with an unqualified opinion for 3 (three) consecutive years; and 4) have never been sentenced for committing a criminal act in the field of taxation based on a court decision that has permanent legal force within the last 5 (five) years. (Devi Safitri, et al, 2020)

Compliance Risk Management (CRM) is a process for managing the overall compliance risk of WPs which includes identification, mapping, modeling, and mitigation of taxpayer compliance risks and their evaluation. Through a series of CRM processes, a systematic, measurable and objective framework will be created. In simpler terms, CRM can be defined as a process of managing the risk management of WP compliance which is carried out systematically by DGT. Compliance risk management is an ongoing process that demands prudence and proactive action. Basically, it is a consequence to reduce adverse impacts and make improvements through innovation. The challenge of today's business world is to apply risk management to the culture of organizations and daily businesses, namely planning, reporting and governance. In its journey, the formation of organizational culture is an important aspect in supporting compliance risk management. In formal terms, compliance risk management is a structured process of systematic identification, assessment, rating, and tax treatment according to risk (eg, non-registration, late tax reporting etc.). Like management risk in general, compliance risk is a process consisting of steps that support decision making. (Dika Dwiansyah, 2020)

*Organization for Economic Co-Operation and Development* (2004) in Dika Dwiansyah (2020) states the indicators in the compliance risk management process, namely:

1. Context setting
2. Risk identification
3. Risk analysis and priority
4. Taxpayer compliance behavior analysis (cause, effect, and corrective action)
5. Determine a change strategy
6. Implementing and implementing strategies
7. Evaluation of Taxpayer compliance results (registration, submission, reporting, and payment)

### 2.2 Artificial Intelligence Technology

Artificial intelligence or Artificial Intelligence (AI) is a technology in the field of computer science that simulates human intelligence into machines (computers) to solve various problems and jobs as well as humans do. (Muchlisin, 2019 -[www.kajianpustaka.com](http://www.kajianpustaka.com))

Artificial Intelligence is artificial intelligence with simulations in machines that are programmed to resemble the process of human intelligence and mimic its actions, so that the system is now able to think similarly to humans systematically and more quickly, so that output can be generated immediately. These processes are included in learning (acquisition of information and the rules for using information), reasoning (using rules to arrive at a predictable conclusion) and perception. The presence of this technology has started to erase and narrow some of the jobs for all companies. (<https://accounting.binus.ac.id/2019/>)

The advantages of Artificial Intelligence are as follows:

1. It is permanent, does not change (depending on the computer system and program).
2. Can store various information or data without any restrictions (can be adjusted as needed)
3. More efficient and accurate use of time in doing a job (in the work system)
4. Ability to solve complex problems and increase work productivity
5. Can duplicate and transfer a capability easily from one computer to another

The Weaknesses of Artificial Intelligence are as follows:

1. The intelligence that is in Artificial Intelligence depends on what is input by the programmer (limited to a program)
2. Limited based on inputted samples, unable to innovate or not be able to create new things
3. Does not have Common Sense. Common Sense is the ability not only to process information, but also to understand the information
4. Not having the ability to develop knowledge, development of knowledge on AI depends on the system being built.

### 2.3 Artificial Intelligence Technology for E-Filing Income Tax (PPh)

E-filing is a service for sending or submitting annual Income Tax Returns (SPT) electronically which is done online and in real time via the internet on the online DGT website (<https://djponline.pajak.go.id>) or the provider page electronic SPT services (Ginting & Marlina, 2017)

The factor that affects taxpayer compliance is the application of the e-filing system. In order to achieve the level of taxpayer compliance, the Government has arranged and established a fast way to submit tax reports to make it easier for taxpayers to submit SPT. One of the government's efforts made by the Director General of Taxes is by issuing the Director General of Taxes Decree No. Kep-88 / PJ / 2004 issued on May 21, 2004 officially launched a product, namely e-filing or electronic filing system. E-filing in PER 01 / PJ / 2014 describes the method of sending annual notification letters, which is done electronically online and in real time via the internet on the website of the Directorate General of Taxes (Suherman et al, 2015). E-filing is part of tax administration reform with the aim of making it easier to create and submit SPT reports to the DGT. With the implementation of this system, it can provide satisfaction and comfort to taxpayers so as to increase taxpayer compliance (Husnurrosyidah & Suhadi, 2017: 99). Research conducted by (Susmita & Supadmi, 2016) found that the application of e-filing has a positive effect on taxpayer compliance. However, it is different from the research conducted by Suherman et al. (2015) who found that the application of e-filing has no effect on taxpayer compliance. (Devi Safitri, 2020)

The use of artificial intelligence will be an important part of tax reform because it is believed to be able to increase the tax ratio, tax avoidance and evasion, and encourage taxpayer compliance. Report of the Director of the OECD Center for Tax Policy and Administration (2017) states that the availability of digital technology in tax administration provides new opportunities for tax administrators to better manage compliance, protect the tax base and reduce administrative burdens. The report also states that there has been a significant change in the tax administration process in which taxpayers are increasingly moving towards technology-based taxation processes. The use of e-filing for personal income tax (PPh) exceeds 70% and 85% for corporate income tax. (M. Wiryono, 2020 -<https://news.ddtc.co.id>)

Indicators of e-filing application in Puji Rahayu (2016) are as follows:

1. Ease of operating the e-filing application.
2. Ease of reporting the Annual Tax Return using the e-filing application.
3. Accuracy and speed in reporting the Annual SPT using the e-filing application so that it is more effective.
4. Efficiency of costs, time and effort in reporting the Annual SPT by using the e-filing application so it is more economical and practical

## 2.4 Digital Services Tax(DST)

Put simply, DST is a tax on certain gross income streams that digital giants receive (Tax Foundation, 2020). However, in essence, until now there is no definition that clearly defines what DST is. The reason is that the regulations on DST are currently being worked on by the OECD. The OECD itself is the organization that is trusted to oversee the negotiations of more than 130 countries that want to adapt the international tax system including the DST. (Nora Galuh, 2020 - <https://news.ddtc.co.id>)

Trade Operators through Electronic Systems (PPMSE) based on Perppu 1/2020 are business actors providing electronic communication facilities used for trade transactions. PPMSE is part of Trading Via Electronic Systems (PMSE). In addition to PPMSE, PMSE business actors include Traders / Service Providers who conduct trade transactions through electronic communication means (PMSE), either by means of which they are created and managed directly or through facilities owned by PPMSE, or other electronic means that provide PPMSE. The business model of a Trade Provider through Electronic Systems (PPMSE) includes, among other things, a marketplace or platform / platform provider as a place where foreign traders or foreign service providers can post offers of goods and / or services. Based on PP 80 of 2019, included in the scope of the meaning of PPMSE are all parties that provide Electronic System Services and / or facilities to enable a transaction for PMSE business activities to be carried out. These Business Actors carry out their services by providing an application system to be used as a means of Electronic Communication to facilitate Trading business activities and / or PMSE settlement, covering various business models for PMSE implementation systems.

PPMSE's business models include:

1. online retail or traders who have their own PMSE facilities;
2. marketplace or platform provider / platform as a place where Traders can post offers of goods and / or services;
3. online classifieds advertising is a platform / platform that brings together sellers and buyers where the entire transaction process occurs without involving PPMSE;
4. price comparison platforms / platforms;
5. daily deals.

Article 6 paragraph (8) of this Perpu mentions foreign traders, foreign service providers, and / or overseas Trade Through Electronic Systems (PPMSE) who meet the provisions of significant economic presence but cannot be designated as a permanent establishment (BUT) because of their existence. The tax treaty will be subject to electronic transaction tax. In the perpu, the government stipulates three provisions significant economic presence namely, (i) consolidated gross turnover of business groups up to a certain amount; (ii) sales in Indonesia up to a certain amount; and / or (iii) active digital media users in Indonesia to a certain number. If we look closely, Article 6 paragraph (8) of Perpu 1/2020 indicates that electronic transaction tax is a tax that is different from income tax (PPh) in general and is also separate from value added tax (VAT).

Based on the translation provided by DST or digital service tax or electronic transaction tax, it is a tax imposed on certain gross income streams received by digital companies. However, these taxes have different bases and rates. In essence, this tax targets income generated from electronic transactions that have so far escaped tax regulation domestic. Imposition of Income Tax (PPh) or electronic transaction tax on PMSE conducted by Foreign Tax Subjects who meet significant economic presence and Imposition of Value Added Tax (PPN) on Utilization of Intangible Taxable Goods and / or Taxable Services from Outside the Customs Area in Within the Customs Area through the PMSE. The significant economic presence approach is an approach in which the presence of taxes in a jurisdiction will appear when a non-resident company has a significant economic presence based on certain factors (OECD, 2019). The criteria for significant economic presence are:

1. the consolidated gross turnover of the business group up to a certain amount;
2. sales in Indonesia up to a certain amount; and / or;
3. active digital media users in Indonesia up to a certain number;
4. and the criteria are not cumulative.
5. Income tax

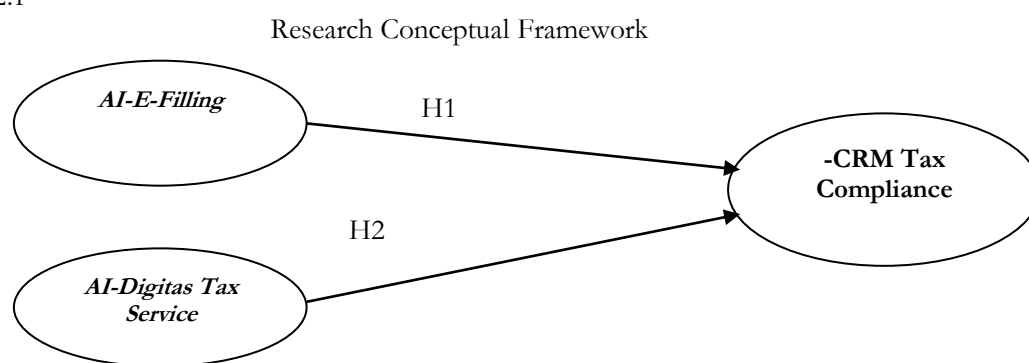
Income tax or electronic transaction tax is paid and reported by:

- foreign traders,  
6. overseas service providers, and / or overseas Trade Through Electronic Systems (PPMSE) providers

## 2.5 Framework and Preliminary Study

The concurrency of thought in this study is to describe the effect of the independent variables with the dependent variable as follows:

Figure 2.1



Some of the preliminary studies include:

1. Devi Safitri (2020) "The Effect of Fiskus Service Quality, Understanding of Tax Regulations and Application of the E-Filling System on Taxpayer Compliance: Tax Socialization as a Moderator". This study found that the tax authorities service quality and understanding of tax regulations partially did not affect taxpayer compliance, but the application of the e-filling system had a positive effect on taxpayer compliance. In addition, the socialization of taxation is not a moderating variable between the influence of tax authorities service quality, understanding of tax regulations, and application of the e-filling system on taxpayer compliance.
2. Sihar Tambun, et al (2020), "The Effect of Technology Acceptance Model and Digital Taxation on Taxpayer Compliance with Understanding the Internet as a Moderating Variable". The results of this study indicate that the Technology Acceptance Model and Digital taxation have no significant effect on taxpayer compliance. Understanding of the Internet has a significant positive effect on taxpayer compliance. Moderation of Internet understanding of the influence of the Technology Acceptance Model has a significant positive effect on taxpayer compliance. Moderation of Internet understanding of the effect of digital taxation has a significant negative effect on taxpayer compliance,
3. Risa Mayasari, et al (2020) "Critical Study of the Tax Reform Strategy in Welcoming the Digital Age ".The results of the study reveal that tax reform is facing increasing challenges in the digital era, which are not only challenges of increasing the capability and integrity of tax authorities, but also the challenge of integrating various changes that have occurred due to digitalization and the 4.0 industrial revolution. So that the right strategy in implementing tax reform in the digital era is to increase the trust and compliance of taxpayers through increasing the capability and integrity of tax authorities through modernizing the system and controlling tax human resources.
4. Suwardi, et al (2020) "Taxing Digital Economy Transactions: Case Studies in India, France and Australia" with the results of their research that Digital taxation can also be done using a new concept that specifically regulates digital taxes. Indonesia imposed VAT for these foreign suppliers in mid-2020.
5. Intan Nurul (2020), "The Effect of Ease and Fiscal Service Perception on Taxpayer Compliance with Taxpayer Satisfaction Intervening Variables." The results show that from previous research, tax authorities, the perception of convenience has a positive effect on taxpayer compliance through taxpayer satisfaction as an intervening variable.
6. Puji Rahayu (2016), "The Effect of Electronic Filling Application (e-filling) on Individual Taxpayer Compliance in Reporting Annual Tax Returns (Annual SPT). (A Case Study of Submitting Annual Tax Returns to Lecturers, Employees and Students at Kadiri Islamic University, Kediri) for individual

taxpayers and provide special training in Kediri, Kediri Islamic universities so that individual taxpayers will find it easier to operate e-filing applications. Through the e-filing application, it can improve the compliance of individual taxpayers in reporting annual notifications easily, quickly,

## 2.6 Hypothesis

### 2.6.1. Influence Artificial Intelligence Technology For E-Filing Income Tax (PPh) To Tax Compliance

E-filing is a service for sending or submitting annual Income Tax Returns (SPT) electronically which is done online and in real time via the internet on the online DGT website (<https://djponline.pajak.go.id>) or the provider page electronic SPT services (Ginting & Marlina, 2017). Devi Safitri (2020) His research found that the quality of tax authorities and understanding tax regulations partially did not affect taxpayer compliance, but the application of the e-filing system had a positive effect on taxpayer compliance. In addition, the socialization of taxation is not a moderating variable between the influence of tax authorities service quality, understanding of tax regulations, and the application of the e-filing system on taxpayer compliance. Based on this description, the hypothesis of this study is as follows:

**H1:** Artificial Intelligence Technology For Income Tax E-Filing (PPh) has a Significant and Positive Effect on Tax Compliance

### 2.6.2. Influence of Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) to Tax Compliance

Nora Galuh (2020), Put simply, DST is a tax on certain gross income streams received by digital giant companies (Tax Foundation, 2020). However, in essence, until now there is no definition that clearly defines what DST is. The reason is, the rules regarding DST are currently still being worked on by the OECD. OECD itself is an organization that is trusted to oversee the negotiations of more than 130 countries wishing to adapt the international tax system including DST, Sihar Tambun, et al. (2020) The results of this study indicate that the Technology Acceptance Model and Digital taxation have no significant effect on taxpayer compliance. Understanding of the Internet has a significant positive effect on taxpayer compliance. Moderation of Internet understanding of the influence of the Technology Acceptance Model has a significant positive effect on taxpayer compliance. Moderation Internet understanding of the effect of digital taxation has a significant negative effect on taxpayer compliance. Based on this description, the research hypothesis is as follows:

**H2:** Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) has a significant and positive effect on Tax Compliance

## III. RESEARCH METHODS

### 2.1 Research methods

This study uses a causal research method that aims to test the effect between a variable (independent /  $X_n$ ) and another variable (dependent variable /  $Y_n$ ). In this case it consists:  $X_1$  = Artificial Intelligence Technology for E-Filing Income Tax (PPh) and  $X_2$  = Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) as an Independent variable and  $Y$  = Tax Compliance as a dependent variable. This research requires hypothesis testing with statistical tests.

### 3.2. Definition and Operations of Variables

Variable is everything that will be the object of observation in research in the form of a concept that has a variation in value. In this study, the independent variable and dependent variable will be disclosed:

- a) Artificial Intelligence Technology for E-Filing Income Tax (PPh) ( $X_1$ ) as an Independent variable
- b) Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) ( $X_2$ ) as an Independent variable



c) Tax Compliance (Y) as dependent variable

Definition operational variable is a definition given to a variable by means of giving meaning, as well as providing an operation required to measure the variable. The Operational Definition of the variables used by the author in conducting research are:

3.2.1. Tax Compliance

Taxpayer compliance is the condition of the taxpayer who has fulfilled all tax obligations and exercised his taxation rights. Paying taxes in order to contribute to the current development in meeting its tax obligations is expected to provide taxes voluntarily. Given the Indonesian tax system that adopts a self-assessment system, taxpayer compliance is an important and absolute aspect. In the process, the trust will be on the taxpayer to calculate, pay and report their obligations. (Intan, 2020).

Compliance Risk Management (CMR) is a process for managing the overall compliance risk of WP which includes identification, mapping, modeling, and mitigation of taxpayer compliance risks and their evaluation. Through a series of CRM processes, a systematic, measurable, and objective framework will be created. (Dika Dwiansyah, 2020)

*Organization for Economic Co-Operation and Development* (2004) in Dika Dwiansyah (2020) states the indicators in the compliance risk management process, namely:

1. Context setting
2. Risk identification
3. Risk analysis and priority
4. Taxpayer compliance behavior analysis (cause, effect, and corrective action)
5. Determine a change strategy
6. Implementing and implementing strategies
7. Evaluation of Taxpayer compliance results (registration, submission, reporting, and payment).

3.2.2. Artificial Intelligence Technology for E-Filing Income Tax (PPh)

E-filing is a service for sending or submitting annual Income Tax Returns (SPT) electronically which is done online and in real time via the internet on the online DGT website (<https://djponline.pajak.go.id>) or the provider page electronic SPT services (Ginting & Marlina, 2017).

Indicators of e-filing application in Puji Rahayu (2016) are as follows:

1. Ease of operating the e-filing application.
2. Ease of reporting the Annual Tax Return using the e-filing application.
3. Accuracy and speed in reporting the Annual SPT using the e-filing application so that it is more effective.
4. Efficiency of costs, time and effort in reporting the Annual SPT by using the e-filing application so it is more economical and practical.

3.2.3. Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh)

Put simply, DST is a tax on certain gross income streams that digital giants receive (Tax Foundation, 2020). However, in essence, until now there is no definition that clearly defines what DST is. The reason is that the regulations on DST are currently being worked on by the OECD. The OECD itself is the organization that is trusted to oversee the negotiations of more than 130 countries that want to adapt the international tax system including the DST. (Nora Galuh, 2020 - <https://news.ddtc.co.id>).

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and managed directly or through facilities owned by PPMSE, or other electronic means that provide PPMSE.

The significant economic presence approach is an approach in which the presence of taxes in a jurisdiction will appear when a non-resident company has a significant economic presence based on certain factors (OECD, 2019). The criteria for significant economic presence are:

1. the consolidated gross turnover of the business group up to a certain amount;
2. sales in Indonesia up to a certain amount; and / or;
3. active digital media users in Indonesia up to a certain number;
4. and the criteria are not cumulative.
5. Income tax  
Income tax or electronic transaction tax is paid and reported by:  
foreign traders,
6. overseas service providers, and / or overseas Trade Through Electronic Systems (PPMSE) providers

### 3.3. Population and Sample Research

Population refers to the entire group of people, events, or things of interest that you want to investigate (Sekaran, 2006). The population used in this study is the individual taxpayers of the DKI Jakarta area. The sampling technique in this study is the Convenience Sampling technique, by distributing questionnaires to individual taxpayers of DKI Jakarta. The reason for choosing this sampling technique is to simplify the sampling process. (Fikriningrum, 2012: 34). Roscoe (1975) in Sekaran (2006) which states that: 1. A sufficient sample size for the study is in the range of 30 to 500. In studies using multivariate analysis (such as multiple regression analysis), the minimum sample size must be 10 times larger than the number of independent variables. Mean while, Hair et al. The number of samples is determined with conditions as determined by the approach of Tabachnick and Fidell (1997) in (Hair, 1998) in Sekaran (2006), the sample size required is between 5 - 10 times the number of parameters. With the number of research parameters, in this case the number of construct indicators is 25, then the ideal number of respondents is 125-250 respondents. The number of samples is determined with conditions as determined by the approach of Tabachnick and Fidell (1997) in (Hair, 1998) in Sekaran (2006), the sample size required is between 5 - 10 times the number of parameters. With the number of research parameters, in this case the number of construct indicators is 25, then the ideal number of respondents is 125-250 respondents..

### 3.4 Data Analysis Method

The purpose of data analysis is to obtain relevant information contained in the data and use the results to solve problems (Ghozali, 2013). The data analysis technique used is; 1. Validity and Reliability Test, 2. Descriptive statistical test to provide an overview or description of data seen from the mean, standard deviation, variant, maximum, minimum, sum, range, kurtosis and skewness; 3. The classical assumption test starts from the normality, multicollinearity, and heteroskedasticity tests, all of these assumptions must pass the test so that the regression equation can be trusted; 4. Test the suitability of the model consisting of the coefficient of determination and the simultaneous F test; and 5. Hypothesis test, namely the t test which basically shows how far the influence of one explanatory or independent variable individually in explaining the variation of the dependent variable (Ghozali, 2013).

## IV. ANALYSIS OF RESULTS AND DISCUSSION

Based on the multiple regression testing that has been done, the following is an explanation of the research hypothesis

Tabell 4.1 Hasil T test Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	19,331	8,758		3,111	.030
1 <i>AI-E-Filling</i>	.674	.471	.266	3,684	.021
<i>AI-Digitas Tax Service</i>	-738	-485	-.294	.823	.651

a. Dependent Variable: Tax Compliance -CRM

Sumber: Data processed in 2020

Ber based on the table above it can be explained that the results of the partial test are as follows:

- 1) Artificial Intelligence Technology for E-Filling Income Tax (PPh) (X1) From the results of the t statistical test, the t value is 3.684 with a significant level of 0.021. This means  $t_{count} > t_{table}$  ( $3.684 > 1.985$ ) and a significant level  $< 0.05$  ( $0.021 < 0.05$ ). This means that Artificial Intelligence Technology on Income Tax E-Filling (PPh) has a significant positive effect on Taxpayer Tax Compliance.
- 2) Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh)(X2) From the results of the t statistical test, the t value is 0.823 with a significant level of 0.651. This means  $t_{count} < t_{table}$  ( $0.823 < 1.985$ ) and a significant level  $> 0.05$  ( $0.651 > 0.05$ ) means that the Upper Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh) does not have a significant positive effect on Taxpayer Tax Compliance.

The regression equation based on the results of hypothesis testing with the t test is as follows

$$\text{Tax Compliance} = 19.331 + 0.674\text{AI\_E-Filling} - 0.738\text{AI-Digital Service Tax} + e$$

The regression equation can be explained as follows:

- a. From the regression equation above, it can be seen that the regression coefficient of Artificial Intelligence Technology For E-Filling Income Tax (PPh) and Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh) is positive, which means that if the level of Artificial Intelligence Technology on Income Tax E-Filling (PPh) and Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh) increase, then the Taxpayer's Tax Compliance will also increase.
- b. The constant value of 19,331 means that if no from Artificial Intelligence Technology For E-Filling Income Tax (PPh) and Artificial Intelligence Technology *Digital Services Tax* (DST) or taxation of certain income (PPh), Taxpayer Compliance is 19.33%.

The results of the discussion are as follows:

### 1. The Influence of Artificial Intelligence Technology For E-Filling Income Tax (PPh) To Tax Compliance

From the results of the t statistical test, the t value is 3.684 with a significant level of 0.021. This means  $t_{count} > t_{table}$  ( $3.684 > 1.985$ ) and a significant level  $< 0.05$  ( $0.021 < 0.05$ ). This means that Artificial Intelligence Technology for Income Tax E-Filling (PPh) has a significant positive effect on Taxpayer Tax Compliance. This research is in line with Devi Safitri's research (2020). His research found that the quality of tax authorities and understanding tax regulations partially did not affect taxpayer compliance, but the

application of the e-filing system had a positive effect on taxpayer compliance. In addition, the socialization of taxation is not a moderating variable between the influence of tax authorities service quality, understanding of tax regulations, and the application of the e-filing system to taxpayer compliance. Based on this, the hypothesis can be accepted.

## 2. Influence of Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) to Tax Compliance

From the results of the t statistical test, the t value is 0.823 with a significant level of 0.651. This means  $t_{count} < t_{table}$  ( $0.823 < 1.985$ ) and a significant level  $< 0.05$  ( $0.651 > 0.05$ ) means that the Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) does not have a significant positive effect on Taxpayer Tax Compliance. This research is in line with the research of Sihar Tambun, et al. (2020). The results of this study indicate that the Technology Acceptance Model and Digital taxation have no significant effect on taxpayer compliance. Understanding of the Internet has a significant positive effect on taxpayer compliance. Moderation of Internet understanding of the influence of the Technology Acceptance Model has a significant positive effect on taxpayer compliance. Moderation Internet understanding of the effect of digital taxation has a significant negative effect on taxpayer compliance. Based on this, the hypothesis cannot be accepted.

## CONCLUSIONS AND SUGGESTIONS

### 5.1 Conclusion

This study aims to determine the effect of Artificial Intelligence Technology for Income Tax E-Filing (PPh) and Artificial Intelligence Technology. *Digital Services Tax (DST)* or taxation of certain income (PPh) affect the Taxpayer's Tax Compliance. Based on the results of the analysis and discussion of the research, the following conclusions can be drawn:

1. Artificial Intelligence Technology for Income Tax E-Filing (PPh) has a significant positive effect on Taxpayer Tax Compliance. These results indicate that the application of the application of Artificial Intelligence Technology for Income Tax E-Filing (PPh) increases the compliance of individual taxpayers in reporting Annual Tax Returns. In reporting the Annual Tax Return so that it is more effective, efficient, economical and practical, the application of Artificial Intelligence Technology for Income Tax E-Filing (PPh) uses a computer system and the internet so that taxpayers can organize taxation data systematically,
2. Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) does not have a significant positive effect on Taxpayer Tax Compliance. This is meaningful Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) cannot have a good impact on taxpayer compliance. Understanding support is needed Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) of the taxpayers. It also gives meaning to understanding Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) very important and plays a very central role in building taxpayer compliance. These results recommend how important it is Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) to provide education on tax obligations in the Digital business sector to taxpayers, where this has an impact on taxpayer compliance.

### 5.2 Saran

Based on the results of the analysis, discussion and conclusions previously described, the authors provide suggestions that can be used as input or consideration for interested parties as follows:

1. The next researcher looked for the research area because in this study it was only limited to individual taxpayers in the DKI Jakarta area. The research was limited to the survey method without direct interviews.
2. For the tax authorities, it is to promote understanding Artificial Intelligence Technology *Digital Services Tax (DST)* or taxation of certain income (PPh) because it is able to increase taxpayer compliance.

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