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The Impact of Artificial Intelligence on Taxation Aspect: A Qualitative Study

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ABSTRACT
The presence of artificial intelligence (AI) has changed business practices and has had an impact on employment and professions. Meanwhile, the income received by workers and professionals is the object of income tax. If there is a decrease in labor revenue and professional service users, it may also be followed by a decrease in tax revenue from the income tax sector. The purpose of this study is to determine the implications of AI on taxation aspects. This research uses qualitative methods with descriptive data analysis. The results show that AI has a positive impact on making it easier for taxpayers to carry out tax obligations, improve tax services, detect tax fraud, and potentially increase tax revenue from the Income Tax Article (ITA) 17 (2), Value Added Tax (VAT), and ITA 23 sectors for delivery services. The negative impact of AI is a decrease in tax revenue from ITA 21 or ITA 23 for expert services, followed by a decrease in personal income tax for these experts and employees. Recommendations for domicile tax certificate (DGT) as a consideration for making policies related to income tax for the use of AI. In addition, as a consideration, it also makes regulations for the Ministry of Manpower to protect professional experts and labor, the Ministry of Communication and Information to protect AI user data, the Ministry of Education and Culture to protect the profession of educators and review the use of AI in education, IAI the education compartment as a consideration for planning a curriculum for accounting education to keep pace with technological developments or AI.

1. INTRODUCTION

Technological developments continue to increase as an effort to facilitate human work (Rohma & Zakiyah, 2022). Along with the increasing rate of human growth, human activities are also increasing. Therefore, there must be technological solutions to support various individual/group activities. One of the technological developments that can keep up with the magnitude of human needs is Artificial Intelligence (AI). AI is a sub-field of science that studies the concept of intelligent calculations (Martaseli & Maragita, 2023). The original purpose was created by AI to adjust business communication between service providers and customers (Anggraini et al., 2020). AI continues to evolve according to the needs of users who expect computer programming that can do something as intelligent as a human or even better (Lukman et al., 2023). AI is also able to understand language processing naturally such as google assistant, able to learn algorithmic data and statistical data on computers without being explicitly programmed, this can be seen in many technologies Machine Learning (ML), AI is widely used by the manufacturing, medical, transportation, and financial industries. AI also has enormous data processing capabilities, decision-making and creativity (Nirvana et al., 2023). AI can play the role of a worker or an entrepreneur to earn income. Income is one of the tax objects (Zheng et al., 2022).

Taxes are part of the wealth that must be paid by taxpayers to the state without direct compensation and are used to fund state expenditure for the prosperity of the people (Law No. 7 of 2021). These expenditures include state development expenditures that aim to improve the country's economy and the welfare of society (Hendi & Cantona, 2022). Business activities and taxation are two things that are interrelated (Sari et al, 2022). Therefore, it is important that taxpayer compliance can optimise state revenue from the tax sector (Chamalinda & Fariyana, 2021). Tax collection must be fair and equitable, meaning that the taxes imposed must be proportional to ability to pay and in accordance with the Benefit Principle. If the tax funds issued by the government are considered not to make a real contribution to the development of the region, then the higher the tendency of the community to do tax evasion (Ernandi et al., 2023). Tax evasionnis an offense committed by taxpayers to reduce the tax payable in an illegal way (Pratama et al., 2020). Supriyati's research (2017) states that tax evasion is an unethical act. Illegal tax avoidance (tax evasion) actions can occur when companies are too aggressive in reducing their tax burden (Paramitha & Sari, 2022).

According to Ikhsan et al (2020) action tax evasion can decrease with the modernization of tax services such as e-registration, e-filling, e-billing and e-SPT. The modernization of tax services is part of the development of information technology or the application of AI in the tax aspect. In the taxation aspect, AI can easily solve the problem of double taxation and taxpayer data, thereby increasing taxpayer trust and compliance (Dike & Worugji, 2020). This proves that AI can help its users' work in supporting activities. However, on the other hand, there is concern for human resources whose livelihoods will be replaced by AI. If this really happens, there will be a lot of impact. In addition to the threat of people losing their jobs, state revenue from the income tax sector will also decrease because the workforce that is the subject of income tax is replaced by AI. It is still not explained in detail about the imposition of taxes or there are no special rules regarding the use of AI, so there needs to be serious attention from the government.

In addition to the above problems, there is a gap in the results of previous research on AI, including research conducted by Dike & Worugji (2020) that explained the Nigerian government to increase taxpayer confidence in utilizing AI, but is constrained by the large cost of implementing AI and cannot accurately measure tax revenue. There are still tax games emerging even though AI restores tax policy and substantially improves social welfare (Zheng et al., 2022). Yetmi (2019) explained that tax information technology does not strengthen the influence of service quality on tax evasion. In contrast to Andani et al. (2022) which states that AI does not need to be a concern for some professions such as accountants. Accountants will not be replaced by robots, precisely along with the growth of Big Data and the emergence of AI can help improve the quality of accountant work (Meitasari & Audrey, 2023). The more qualified the accountant, the better the financial reports produced, so that there will be no tax evasion (Brennan, et al.,2017). In addition, the application of AI poses risks about the security of financial report data (Irmansyah et al., 2023). The misuse of AI also has a negative impact because there are no regulations that regulate and only use the interpretation of the ITE Law (Ayunda & Rusdianto, 2021).

Based on the problems and research gaps that have been described, the purpose of this research is to find out the implications of AI and find solutions to the impacts raised by AI. Considering that AI will continue to develop in every activity, it is very important to plan tax regulations on the collection of income tax and VAT on the use of AI so that local workers or entrepreneurs are protected, and the government can increase tax revenues because the tax objects increase, which has not been discussed in previous research. It is hoped that this research will be able to provide benefits for the Directorate General of Taxes, the Ministry of Manpower, the Ministry of Communication and Information Technology as a consideration for AI-related policy making. For IAI, the education compartment can be considered in compiling an accounting curriculum to keep up with the development of AI. For Academics as a reference in teaching in the classroom, especially the independent learning curriculum which requires students to have special expertise in the field of competence. As for the limitations in this study so as not to expand, the researcher only conducted research on the implications of artificial intelligence on the taxation aspect.

2. LITERATURE REVIEWER

Artificial Intelligence is the sophistication of technology in understanding the past and predicting the future with huge data (Yu et al., 2019). AI has the goal of making the work of its users easier through intelligent thinking in performing calculations so that a computerized system is created to analyze a problem (Shamaya et al., 2023). AI has the benefits of automating iterative learning and discovery through data, adding intelligence, adapting to progressive learning algorithms, analyzing data more and deeper,

achieving admirable accuracy, utilizing most of the data, improving efficiency in the banking world (Martaseli & Maragita, 2023). AI includes Robotic Process Automation, Expert System, Speech, Understanding, Artificial Intelligent System, Vision, and natural language as it is because it has intelligence with sharpness in thinking (Soeprajitno, 2019).

Taxes are the surrender of part of a person's wealth and can be imposed in accordance with applicable laws or norms without direct contravention and are used to pay state expenses (Kusuma & Rahayu, 2022). Tax objects include everything be it goods, services, activities or circumstances that are subject to tax, such as income. Meanwhile, tax subjects include everything that has the potential to earn income and is subject to income tax (Rahayu & Suaidah, 2022). Tax subjects are divided into two, namely domestic tax subjects, such as individuals, business entities, inheritances that have not been divided and foreign tax subjects, such as individuals who run a business in Indonesia for less than 183 days in 1 year, individuals or entities that are not domiciled in Indonesia but earn income from Indonesia not from business activities and Permanent Establishments (Law No. 7 of 2021 concerning the Harmonization of Tax Regulations, 2021). In Indonesia, taxes are collected using 3 systems, namely official assessment system, self-assessment system, and withholding system (Rahayu, 2019). Based on SE-62/PJ/2013 there are 4 transaction models of e-commerce taxable, which e-commerce This is one of the manifestations of AI. The following are the tax obligations attached to the transaction e-commerce:

Table 1. Taxation Aspects of Transactions E-commerce

Transaction Model	Definition	Related Parties	Tax Object	Tax Subject	Imposition of Taxes
Online Marketplace	Activities to provide a place for business activities in the form of Internet Shops in Internet Malls as a place to sell goods and/or services	1) Online Marketplace Organizer. 2) Online Marketplace Merchant 3) Buyer	1) Income in exchange for the provision of places and/or time on the internet site for the delivery of information such as: Monthly Fixed Fee, Rent Fee, Registration Fee, Fixed Fee, or Subscription Fee. 2) Income from the sale of goods and/or the provision of services is the object of withholding/collecting income tax 3) Rewards related to payment intermediary services such as: Per Sale Fee and/or other bills.	1) Online Marketplace Organizer. 2) Sellers of Goods or Services on the Online Marketplace.	Income Tax Article 17, VAT, Income Tax Article 23, Article 21, or Article 26
Classified Ads	Activities provide a place and/or time to display content (text, graphics, explanatory videos, other information)	1) Organized Classified Ads. 2) Advertisers 3) Ad	Rewards related to the provision of places and/or time on the internet site for the delivery of information such as: transaction fees.	Organized Classified Ads.	Income Tax Article 17, VAT, Income Tax Article 23, Article 21, or Article

	goods and/or services for Advertisers to place advertisements	Users.			26
Daily Deals	Activities to provide a place for business activities in the form of the Daily Deals website as a place for Daily Deals Merchants to sell goods and/or services to buyers by using Vouchers as a means of payment	1) Organizer of Daily Deals. 2) Daily Deals Merchant 3) Buyers.	Income from the services of the provider of the place and/or time in other media for the delivery of information	1) Daily Deals Organizer. 2) Daily Deals Merchant	Income Tax Article 17, VAT, Income Tax Article 23, Article 21, or Article 26
Online Retail	Selling goods and/or services carried out by the Online Retail Operator to the Buyer on the Online Retail website.	1) Online Retail Merchant Organizer 2) Buyer	Income from the sale of goods and/or provision of services	Online Retail Merchant Organizer	Income Tax Article 17, VAT, Income Tax Article 23, Article 21, or Article 26

Source: SE- 62/PJ/2013 Concerning Affirmation of Tax Provisions on E-Commerce Transactions, 2013

On the issues that are circulating *Artificial Intelligence* (AI) is like a double-edged sword that has advantages and disadvantages. Based on these advantages, it can support current human work, while the weaknesses that are caused can threaten the continuity of the economic ecosystem which has an impact on state tax revenue, this is what will be found through consideration of making special regulations or regulations in the field of taxation. The following framework in this study is presented in picture 1:

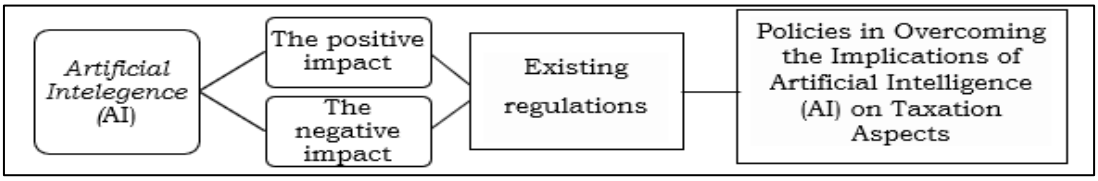

Figure 1: Research Framework

Source: Processed Data, 2024

3. RESEARCH METHODS

This research uses a qualitative method. The qualitative approach method is a data processing method by analyzing factors related to the research object by presenting data in more depth to the research object (Sugiyono, 2019). The technique of collecting data through literature study uses secondary data types. The data used are scientific literature or national journals and international journals that are in accordance with the research criteria, namely AI in the aspect of taxation so that 44 journals were obtained, while the books used were 2, one of which was a book on research methodology, *Website* like forbes.com, cfo.com, KPMG.com, linkedin.com and tax regulations such as SE-62/PJ/2013, PMK No. 210/PMK.010/2018, PP 80 of 2019, PMK No. 48/PMK.03/2020, Per-12/PJ/2020, HPP Law of 2021, PMK No. 60/PMK.03/2022, PP 49 of 2022 and Communication and Informatics Regulation No. 20 of 2016. All data were analyzed using descriptive (Marda & Johannes, 2022). The step in the analysis of this research is to collect as much data as

possible about AI, then explore the data and connect the relationship between the literature about the positive and negative impacts of AI, then look for related regulations or existing regulations as a reference to overcome these implications. The last step is to provide a solution as an overview or consideration to policy makers if there are still gaps in existing regulations.

4. RESULTS AND DISCUSSION

The positive impact of artificial intelligence (AI) on humans in the field of taxation

In Indonesia, the DGT has implemented Machine Learning (ML). ML is a branch of AI that is used to process large amounts of data into information that can be used in the decision-making process. The ML used by the DGT is in the form of e-filling, e-billing, e-invoicing, e-spt, e-registration, and approweb. Working system approweb using inputs from internal data (Annual Tax Returns, Period Tax Returns, Financial Statements, tax audit history and so on) and external data (industry data, tax rates, data real time companies, data exchange with overseas tax agencies, data on government partners, banks, cooperation with Marketplace) which aims to identify taxpayers with the above transaction value threshold tax but do not have an NPWP (Diamendia & Setyowati, 2021). In addition, the DGT also uses AI in the form of chatbot at Contact Center Kring Pajak 1500200 which can increase the capacity of tax services (Swastiko & Fauzi, 2023). AI used in e-commerce or social media platforms to sell online in Indonesia have a great opportunity to increase tax revenue on transactions e-commerce or digital (Wahyuni et al., 2023). The tax office of Guangdong Province, China can identify the existence of suspected tax fraud by utilizing ML (Sheng et al., 2018). This is because AI helps detect potential tax fraud (Wahyudi, 2023). In China, it has also used applications that connect accounting transactions with tax automation such as tax invoice creation (Sacco & Giovani, 2019).

Tax service providers in various countries are also reforming revenue administration services using Internet of Things (IoT) to improve smart tax services even better (Gerger, 2019). If you can make good use of IoT, it will be an advantage, because IoT is able to do better data processing and the ability to store more, while being proficient in systems Blockchain can formulate a model Digital tax, and mastering computing technology Cloud It can access data anytime, anywhere Real-time (Rini, 2019). AI with type Natural Language Processing (NLP) used by tax and accounting firms Big Four for tax returns annually for clients with expatriate status or complicated financial situations (Zhou, 2017). Klynveld Peat Marwick Goerdeler (KPMG) also developed the ''K-analyzer'' application, this application is a tax analyzer that can analyze thousands of transactions in minutes like a tool Payroll Tax Automator, which automatically fills in the payroll code and allocates the wage code to the correct payroll tax wage type. In addition, it can analyze data on all monthly payroll tax returns and annual payroll tax adjustments (KPMG, 2023). If tax technology and information are adequate, the use of taxpayer time will be more effective. Therefore, it will make it easier for taxpayers to carry out their tax obligations and avoid tax evasion (Sinaga et al., 2021). This is in line with normative principles, where taxpayers expect fast and practical services that can be fulfilled with tax applications that can be reached anywhere and anytime (Larasati & Hartika, 2023).

Table 2. The Positive Impact of AI on the Field of Taxation

No.	Branches of AI Science	Definition	Application of AI in the field of taxation	Positive Impact on Taxation
1	Machine Learning (ML)	A system used to process large amounts of data into information that is used during decision-making (Diamendia & Setyowati, 2021)	e-filling, e-billing, e-invoicing, e-spt, e-registration, approweb.	Facilitate tax payment and reporting, improve tax services, detect tax fraud (Tax avoidance).
2	Chatbot	An AI technology created with the aim of facilitating interaction between users (humans) and computers (Swastiko & Fauzi, 2023)	Kring Service Tax 1500200	Improve tax services, because it can reply to incoming messages automatically at any time without having to wait for working hours

3	E-commerce	A technology used for digital buying and selling transactions (Wahyuni et al., 2023).	Transaction results are tax objects (VAT and Income Tax)	Able to increase tax revenue, because the digital area is a new land that has the potential to be taxed
4	Internet of Things (IoT)	A concept that embeds technology in an object such as a sensor or software that is inserted into a computer or cellphone with the aim of facilitating communication, exchanging data, controlling data, and connecting with other devices if it is still connected to the internet (Gerger, 2019).	Barcode on tax invoice instead of signature of the leader or authorized official	Able to identify errors or data manipulation
5	Blockchain	A digital data management and transaction system where all users of this system have the same goal (Ramadan & Putri, 2018).	Digital Tax Model (MTD), such as application models attached to accounting software, for example zahir, K-analyzer, and so on.	Facilitate tax reporting, increase transparency and minimize errors caused by manual reporting.
6	Cloud	A technology with various services through internet media (Rini, 2019)	Storage of tax data, networks, servers, and databases on tax websites	It makes it easier to store a lot of tax data and makes it easier to see tax information through news presented on tax websites
7	Natural Language Processing (NLP)	A computer technology with the ability to understand, interpret, and manipulate human language or commands either in the form of text or voice messages (Zhou, 2017).	Chatbot on tax services, google assistant	Improve tax services, because it answers taxpayers' messages automatically, besides making it easier for taxpayers to make detailed narrative reports about tax refund submissions

Source: Processed Data, 2024

The negative impact of AI and its implications for taxation

In Indonesia, AI applied in applications e-commerce or online shops cause tax losses for the state. This is because trading through e-commerce which is a substitution trade, or Reseller It has not been covered by central tax regulations or regional levies. Other models of products or services that are converted in digital format, such as Domain, Hosting and so on sent both to other companies and end consumers, there are also no clear rules and sanctions. As a result, these digital products and services are not only prone to tax evasion, but also difficult to be taxed (Wahyuni et al., 2023). There are two main factors that cause tax evasion, namely government policies in regulating the amount of tax rates and the effectiveness of the implementation of the tax system such as the self-assessment system (Marda & Johannes, 2022). This was also revealed by Mirayani & Rengganis (2023) The tax system has a positive effect on the perception of tax evasion. This tax evasion is like making false financial statements and invoices that are not in accordance with the real (Nugroho et al., 2020). However, this can be minimized along with the development of AI in the field of accounting, such as the presence of Software accountancy (Sely, 2019).

According to McCoy (2019) The ease offered by AI in automatically recognizing and processing

documents and storing many documents for tax purposes, can make some taxpayers no longer need their accountants. It is possible that the demand for accounting professional services in the technical field is decreasing, due to the large number of Software accounting-based Cloud Accounting and Software audit-based caseware (Prakosa & Firmansyah, 2022; Rohma, 2023). Most likely development of Big Data, ML and AI will make accounting and finance professionals lose their jobs (Alghafiqi & Munajat, 2022), including junior auditors or audit firm staff because they prefer to invest in AI. The level of investment is assessed by the measure of audit quality, and audit costs. The greater the investment in AI, the more the reduction in the workforce in the audit firm, because the audit costs earned per employee have a positive relationship with AI investment (Brazel, 2022). Professionals agree that AI is a direct threat to employee jobs, especially to lower and middle-level audit professionals (Muawanah et al., 2022). The human resources needed are getting smaller and unemployment is increasing due to layoffs (Ardiansyah, 2020; Rohma et al., 2023).

The increase in unemployment is due to efficiency and innovation. There is deflation and inflation, because many people will lose their jobs so they cannot keep money in the bank and will not spend more money (Althin et al., 2023; Rohma, 2023). Even AI has the potential to replace teaching staff, because programs in the AI system can be a place to ask questions and find information for students (Zahara et al., 2023). Many users of accounting graduates today are dissatisfied because the quality of graduates has technological limitations (Fauziyyah, 2022). For MSMEs with limited financial resources, there is resistance among employees, especially for those who are not familiar with digital technology (Anjarwati et al., 2023). On the other hand, AI can cause adverse situations for businesses, such as AI users sharing personal data at the time of application registration, it is feared that the large number of unemployed allows the emergence of virtual crimes by committing data theft that can be materially detrimental (Rachmadana et al., 2022). Disruptively, AI has changed business practices that have a direct impact on changes in employment and professions (Puspitasari et al., 2021).

Table 3. The Negative Impact of AI and Its Implications on the Field of Taxation

No.	Professions that affected	Negative Impact of AI	Implications in the field of Taxation
1	Tax Employees	The presence of *Chatbot* in tax services makes DGT staff from the service department transfer to other departments, it is likely that in the future employee acceptance in the DGT environment will decrease because some functions are replaced by AI. Likewise, in the company environment, the transfer of employee functions in the tax administration department was originally done by more than one person with the presence of *e-filling, e-invoicing, e-billing,* and so on to facilitate the tax reporting process, so that the company makes labor efficiency.	If there is a transfer of labor functions, it is likely to be followed by a decrease in the recruitment of new workers, so that income tax revenues on employees will also decrease
2	Accounting Services	The presence of cloud-based accounting software has made a decrease in the demand for this accounting service.	If the demand for accounting services decreases, there is a possibility of a decrease in tax revenue from Income Tax 23 or Income Tax 21 on the services of experts and followed by a decrease in income tax on the experts
3	Accounting	The presence of accounting applications such as zahir, myob, accurate and so on makes the	If it is more difficult to get a job, it is possible to cause unemployment, thereby reducing tax revenue on

		opportunity *for accounting* personnel to get a job even narrower.	employee income
4	Finance	Just like *accounting*, the finance section is also displaced by other financial applications that are faster and more precise. So that this part, which originally needed a lot of labor, will be efficient. For example, employees of banks or other financial institutions.	If the finance department is replaced by a financial application, it will reduce employee acceptance in the future. This also causes a decrease in tax revenue on employee income.
5	Audit professionals at the middle and lower levels or Junior Auditors	The presence of caseware-based audit software makes audit companies prefer to invest in the software rather than hiring audit professionals at the middle and lower levels. Because it is more efficient on audit costs.	To continue to exist in the profession as an auditor during the rapid development of AI. Audit firms reduce audit costs by investing in audit software rather than using audit teams. Therefore, it is necessary to have a policy on taxes on the purchase of intangible assets and the calculation of amortization because there is no clear regulation discussing this. In fact, intangible assets in the form of software like this can take over a person's work. So that it causes difficulties in finding a job, and has an impact on the number of unemployed, this makes tax revenues on employee income also decrease.
6	Industrial Labor	Many manufacturing companies are adopting AI to automate production. New technologies lead to the direct replacement of jobs and tasks currently performed by human labor.	If many robots or AI systems take over the role of human labor, it is likely to cause downsizing in the workforce in the industry. In fact, the manufacturing industry is expected by the government to be able to absorb a lot of labor. If there is labor efficiency caused by AI, it will also indirectly reduce taxes on employee income.
7	Teachers or lecturers	AI systems can also be used by students or students as a place to ask questions and find information. If they feel comfortable, this has the potential to replace the role of teachers or lecturers	If the role of teachers and lecturers has been replaced by AI, then it is likely that there will be many students or students who do not really study at school or campus. Because they think that studying at school or campus is only to look for a diploma, while to find knowledge, they will prefer to learn through AI. If this continues, it will reduce students' interest in continuing their studies. If there is a continuous decline in student admissions, it is possible that the campus will also close because campus income is not able to cover operational costs. Although campuses or schools are not subject to income tax directly. But the state will lose taxes on

			employee income, because many employees and lecturers are dismissed.
8	Offline Merchant	The emergence of AI that facilitates the online trading process makes offline traders feel threatened with going out of business.	There needs to be a policy related to online trading so that offline traders can continue to rotate their capital. If offline traders go out of business, there will be a decrease in income tax revenues for entrepreneurs with certain income and VAT. In addition, regional taxes have also decreased because many offline traders in the market are unable to pay market levies.
9	Online Traders	The presence of *e-commerce* and online shops is the application of AI in the field of trade. This application pampers consumers because they can be selective in choosing goods and prices, but goods come quickly. This phenomenon is a threat to offline traders.	There needs to be a policy related to online trade because there are no rules related to resellers through e-commerce and there is also no transparency policy for merchants who use social media. Even though this is very prone to tax evasion. Tax losses can be simulated if this is not immediately issued by a special regulation. The state will lose taxes on the income of entrepreneurs with certain gross turnover, VAT, income tax on celebrities and so on, Income Tax 22 if the goods are imported, Income Tax 23 if the goods sold are in the form of e-books, songs, or the like that generate royalties.

Source: Data processed, 2024

Review of tax rules or regulations that have governed AI and its derivatives

The development of the digital economy globally requires the world's tax systems to adapt, including Indonesia which has implemented policies for taxes on digital transactions contained in SE-62/PJ/2013 Concerning Affirmation of Tax Provisions on E-Commerce Transactions (2013). The regulation regulates the imposition of income tax and VAT related to transactions e-commerce which includes Online Marketplace, Classified Ads, Daily Deals and Online Retail. The goods or services sold on e-commerce in the form of tangible BKP, intangible BKP and JKP. Intangible BKP is a digital good, while JKP is sold in the form of digital services sent via the internet directly. In order to prevent a gap between offline and online traders, the government updated these regulations on online trading by issuing PMK No. 210/PMK. 010/2018 concerning Tax Treatment of Trade Transactions through Electronic Systems (E-Commerce), (2018); PMK No. 48/PMK.03/2020 Procedures for Appointment of Collectors, Collection and Deposit, and Reporting of Value Added Tax on the Utilization of Intangible Taxable Goods and/or Taxable Services from Outside the Customs Area within the Customs Area through Perd (2020). The limitations of the criteria appointed as VAT collectors according to Per-12/PJ/2020 are business actors e-commerce, Marketplace, or online shops within 12 months have a transaction value of digital product sales to buyers exceeding IDR 600,000,000 in 1 year or IDR 50,000,000 in 1 month, or have an amount of Traffic or the accessors in Indonesia exceed 12,000 in 1 year or 1,000 in 1 month can be appointed as VAT collectors(Per-12/PJ/2020 concerning Limitations on Certain Criteria for Collection and Appointment of Collectors, Collection, Remittance, and Reporting of Value Added Tax on the Utilization of Intangible Taxable Goods and/or Taxable Services from Outside the Customs Area in Dala, 2020). PMSE sellers or VAT collectors are required to make commercial invoice, billing, order receipt, or similar documents as reporting to the Tax Office (PMK No. 60/PMK.03/2022 concerning Procedures for Appointing Collectors, Collection, Deposit,

and Reporting of Value Added Tax on the Utilization of Intangible Taxable Goods and/or Taxable Services from Outside the Customs Area within the Customs Area through P, 2022).

Intangible BKP in the form of e-book, e-magazine that are sold on digital platforms such as Google Play are given facilities exempt from the imposition of VAT, if e-book and e-magazine have an educational element. The use of BKP is intangible such as Software, digital applications, multimedia, electronic data, Virtual Goods, Virtual Coin, Streaming Content Web Hosting, Video Conference Services or other services provided on the internet network are subject to VAT. Even though BKP is intangible or JKP purchased from inside or outside the customs area is used for education, it is still subject to VAT with the calculation procedure that has been regulated in the KUP (Government Regulation No. 49 of 2022 concerning Value Added Tax Exempted and Value Added Tax or Value Added Tax and Sales Tax on Luxury Goods Not Collected on the Import and/or Delivery of Certain Taxable Goods and/or Delivery of Suits, 2022).

Policy recommendations in addressing the implications of AI on taxation

First, the creation of regulations on income tax for AI. Based on some of the regulations that have existed above related to digital taxes, there is already a policy on the use of Software or other digital-based software and services that have been subject to VAT. So that the development of AI is not a threat to a decrease in tax revenue from the VAT sector. However, there is no policy related to Income Tax that regulates the use of AI in companies, current tax regulations only impose Income Tax 22 if the counterparty of the transaction is a treasurer, Income Tax 4 paragraph 2 if the counterparty of the transaction is a direct consumer or entrepreneur with a turnover of less than Rp 4.8 billion, Income Tax 26 if the counterparty of the transaction is a foreigner. It is likely that the state will experience a decrease in tax revenues from Income Tax 21 and Personal Income Tax for employees if there is a decrease in employee revenue because it is replaced by AI. Even though the Income Tax 21 rate is progressive while the VAT rate is only flat at 11%. The workforce can be more than 1 person in the company, while AI only makes a one-time purchase transaction. Even rental services Web Hosting for virtual offices and Video Conference for meetings, seminars and classes are not the object of Income Tax 23 or Income Tax 4 paragraph 2, so it is also possible to make a decrease in Income Tax 4 paragraph 2 revenue, because property companies (rental of buildings, shophouses, stands, and others) have also decreased. On the other hand, there is a possibility of an increase in tax revenue from VAT and Income Tax 23 because it is driven by transactions e-commerce involving delivery services.

Second, the creation of regulations on income tax for resellers as well as fictitious accounts in online trade as well as supervision of trade from abroad through direct online sales to consumers or other companies in the country. Online sales are very prone to occur Tax Evasion because it can carry out transactions to ship goods from abroad/import to direct consumers or other companies in the country without being subject to Income Tax 22 on imports. So that it can harm the state for a decrease in Income Tax 22 revenue on imports. It is possible that there may also be practice Transfer Pricing through this online sales application. In addition, online trading also still needs to be reviewed again for its regulations because there are no clear rules related to its Reseller which is in e-commerce and there is also no transparency policy for traders who use social media such as Tik Tok, Facebook, Instagram, and others. Even though Facebook Ireland Ltd, Facebook Payments International Ltd, Facebook Technologies International Ltd and Tiktok Pte. Ltd have been appointed as a VAT collector, but there are still many online merchants who through Facebook and Tik Tok have not been subject to VAT or reported income tax. This is likely to happen because Facebook Technologies International Ltd and Tiktok Pte. Ltd only looks at the number Traffic transactions made by an account, in fact, this is a loophole for online merchants to avoid taxes by using several accounts to sell so that the number of Traffic does not exceed a certain limit. If they are going to exceed the limit of the likelihood that they will use a new account, this can happen because account creation is free.

Third, regulations on personal data protection. Creating an account on social media or other software also contains an element of risk because the account owner must fill in a personal identity. Seeing the risks that may arise, the government issued a policy through the Minister of Communication and Informatics Regulation of the Minister of Communication and Information Technology Number 20 of 2016 concerning the Protection of Personal Data in Electronic Systems (2016) and Government Regulation of the Republic of Indonesia Number 80 of 2019 concerning Trade Through Electronic Systems (2019). However, this regulation needs to be reviewed so that users are protected from data leaks (hackers) or misuse of

data. Because almost all digital transactions and banking data storage, tax reports, financial statements, and so on now use AI.

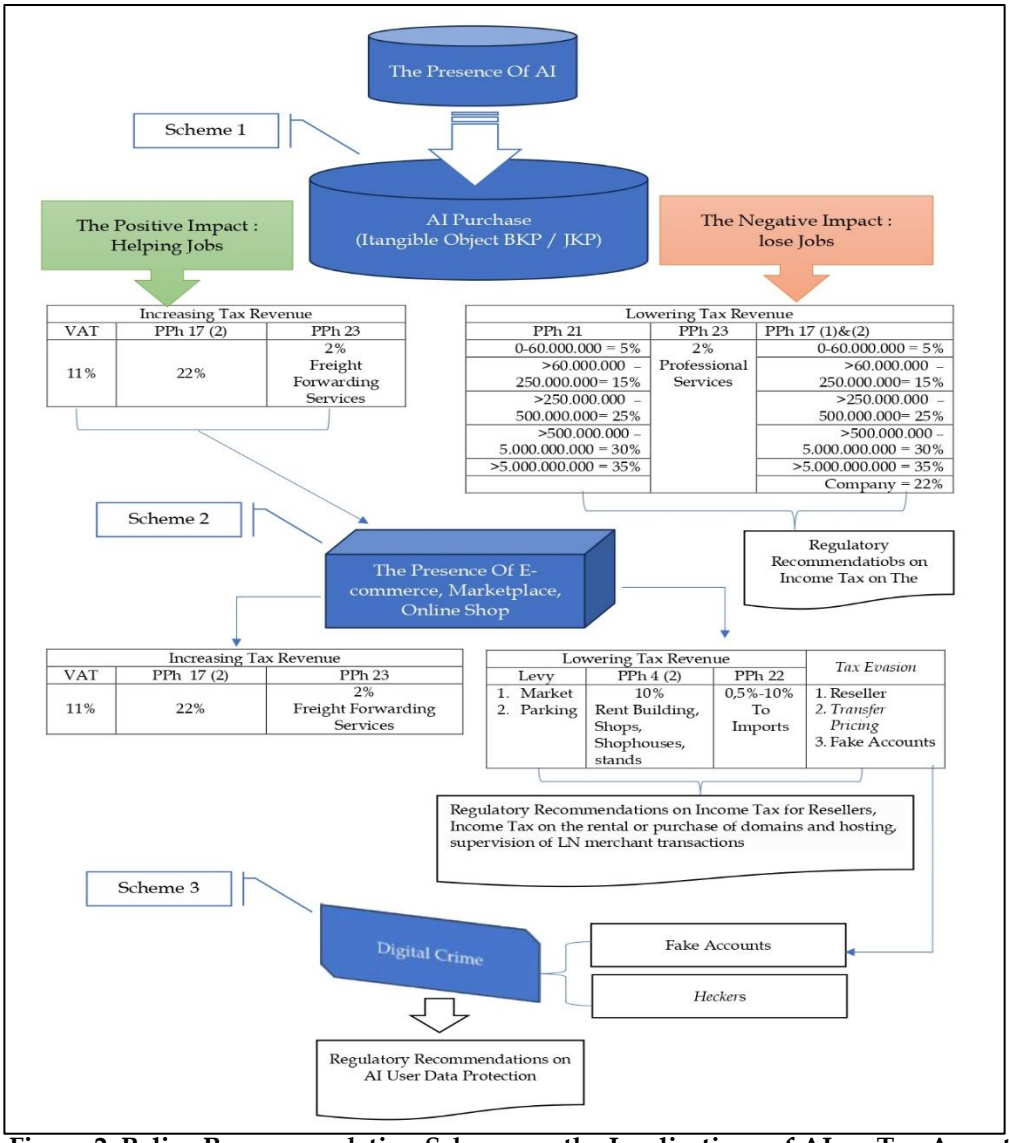

Figure 2. Policy Recommendation Scheme on the Implications of AI on Tax Aspects
Source: Data processed, 2024

5. CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS

The results of this study can be concluded that ai has a positive impact, namely make it easier for taxpayers to collect, pay, report taxes, detect tax fraud (*Tax avoidance*), improving tax services, making it easier to update the latest tax regulation information on the tax website, storing a very large amount of tax data, potentially increasing tax revenues from the Income Tax Article 17 paragraph 2, VAT and Income Tax Article 23 sectors due to the growth of transactions *e-commerce*. The negative impact of AI on the workforce and its implications on the taxation aspect are the transfer of labor functions, which is followed by a decrease in the recruitment of new workers. This will have an impact on a decrease in income tax on employees, a decrease in Income Tax 23 or Income Tax 21 for expert services and a decrease in Personal

Income Tax for experts. The negative impact of AI is also felt by traders *offline* due to the emergence of *e-commerce*. This has an impact on reducing MSME income tax, regional taxes, and tax avoidance. Recommendations for policies or regulations related to taxes are the creation of regulations on income tax for AI, the creation of regulations on income tax for resellers and fictitious accounts, and regulations on personal data protection.

The limitation of this study is that the researcher only uses descriptive analysis tools. So that the lack of sharpness in observation and data analysis by researchers is a limitation in this study. The results of the research presented may still have shortcomings. The limitations of funds and time used in this study also relatively affect the results of this study. The suggestions for policy makers such as The Directorate General of Taxes to make regulations related to income tax attached to AI transactions and their derivatives as well as the effects that arise such as labor shifts. For the Ministry of Manpower, it is a consideration to make policies related to the use of AI to protect Indonesian workers. For the Ministry of Communication and Informatics, it can be used as a reference for making regulations related to the protection of AI user data. For the Ministry of Education and Culture as a consideration for making policies related to the use of AI in the world of education. For the Indonesian Institute of Accountants, the accounting education compartment is a consideration for planning a curriculum for accounting education to keep pace with technological developments or AI. Meanwhile, for Academics as reference material in teaching in the classroom, especially the independent learning curriculum which requires students to have special expertise in the field of competence. For the next researcher, it is a reference for research with almost the same topic but from a different perspective.

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