



#### **Conference Paper**

# Tax Compliance: Development of Artificial Intelligence on Tax Issues

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#### Abstract.

The development of robotic technology, especially AI, is able to forecast and present statistical analysis for almost all purposes, including taxes. This study aims to explore the various breakthroughs presented that helped managers and policymakers determine alternatives to improve corporate tax compliance by the qualitative method. The results of this study showed that the implementation of AI has been adapted quite a lot, but it is still not enough, especially in measuring the right tax compliance model for the manufacturing industry, which is the largest tax contributor in Indonesia. AI is said to help managers make more complex judgments with simulated risks. Early detection of tax fraud, leakage of year-end tax shocks, and misuse of tax costs can be minimized by AI optimization. However, there is a discussion about this AI threat on the security aspect that needs to be understood, so that the AI optimization strategy in taxes can mitigate the level of tax audit risk. The recommendation for next study is the exploration of ultimate expectations of corporate tax compliance are apparent.

Keywords: artificial intelligence, development, tax issues, digitalization, manufacture

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### 1. Introduction

The taxation system of the future will be based on intelligence, and tax collection will become more system-based. Big data is important for mapping and analyzing dynamic tax and credit relationships, including in Indonesia. The Indonesian Ministry of Finance released tax revenues until the end of February 2022 reaching Rp199.4 trillion or growing 36.5% and reaching 15.77% of the target of the State Budget (APBN) in 2022. Growth was supported by economic recovery as seen from the industry which was still expanding, commodity price developments, and export-import performance. To continuously improve the achievement of targets and accommodate big data issues, the development of robotic technology is the right choice. Moreover, Artificial Intelligence

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(Al) is widely discussed by researchers and implemented by practitioners in tax administration matters. Indonesia has recently developed the theory of artificial intelligence, and in the future artificial intelligence technology is predicted to be more widely used in the field of government affairs, including taxes. Recent studies on the optimization of artificial intelligence technology in the tax sector, such as filing online tax returns and monitoring invoices.

Machine learning technology is an alternative to AI optimization in optimizing solutions to tax problem-solving. One of them is to detect the behavior of taxpayers when litigating in court. The early system warning feature in the application is useful as a tool to detect irregularities in decisions and possible hidden taxpayer actions such as corruption, collusion, and bribery. Even AI technology can also be used as a tool for analyzing judges' performance and as a means of detecting inconsistencies in court decisions with similar tax dispute cases. In addition, technology is also a way to improve regulations in areas that have the potential to cause tax disputes.

## 2. Research Methodology

This paper is a quantitative in nature and reviews the literature to identify the factors that contribute to the compliance with tax by individual taxpayers. A systematic literature review was conducted to find the related articles to tax compliance. Search engine was used to extract the articles from the literature. To identify the related articles to the topic of this paper, key terms such as tax compliance, theories of tax compliance, factors affect tax compliance, taxpayers, and a combination of these terms were used. The search engines of data base such as Emerald and Science Direct have been deployed. As a result, a total of 121 articles were extracted. Two screening was conducted. The first was to eliminate the unrelated articles. As a result, a total of 71 articles were removed from the database of articles. The second screening involves a reading of the title, abstract, and the article.

## 3. Artificial Intelligence in Taxation

Algorithms are used in artificial intelligence programs, which, due to their inherent speed, reliability, and scalability, now possess an advantage over humans in areas such as securities trading [1]. Algorithms have become dramatically better at identifying patterns and making judgments due to the greater availability of the data used as raw material for these algorithms, as well as an increase in processing power that has made

it possible to process and interpret the vast quantity of available data. In the taxation system, it is necessary to prioritize aspects of collecting, processing, and analyzing tax problems that taxpayers complain about, and are collected in a database. Because Tax concerns everyone, smart taxation services, and platforms need to provide easy and fast responses to solve problems. Today's consulting options are diverse, including tax services. Can be through the web page, APP, and direct messenger channel. This Albased consultation should form an interactive question system, perhaps even using an answering machine with speech recognition techniques [2].

If we map the relationship of tax payments to the supply chain and share ownership, it actually shows. In tax issues, the added value of tax invoices plays a role in the share ownership ratio, both industrial and commercial [3]. It is possible to know the economic activities of these taxpayers comprehensively depending on the real-time situation and conditions, the accuracy and completeness of the forms, and the realization of tax risks. The role of AI can be optimized in predicting the amount of future taxes to be a technology-based reference that is worth considering.

Tax issues that are included in the legal system, are agreed to be developed with the adoption of artificial intelligence, but for errors made by the system, legal responsibility cannot be charged [4]. In that perspective, if Al is considered a general technology product and a technical product, then the designer or manufacturer is considered to have to bear the legal consequences arising from the product's fault. Including tax issues, Al product errors can be due to design defects. If the design is accurate but there is still a risk of fraud, this will lead to control over the use of companies, including manufacturing, which is a large industry and has the potential for many tax transactions.

The important thing is that there is a risk that the public will have a decreased interest in knowing tax rules because it has been facilitated by the adoption of Al in their tax affairs. So it depends on tools, the internet, and even the Al system itself. The supervisory system also needs to be improved so that Al is not misused by individuals as an opportunity for tax fraud. Literacy on the impact of technology on the tax system in Indonesia needs to be well formulated and related to the law as a reference.

# 4. The Tax Issues in the Manufacturing Industry

The manufacturing sector is given special attention by the government because it is Indonesia's largest tax contributor to date, besides that, despite the Covid 19 pandemic, this industry is still the focus of the national economy. A large contribution to gross domestic product is reported, Rp. 3.119 trillion or 19.62% of gross domestic product.



First half of year 2019, the manufacturing sector contributed up to 20.07% which was the 5th in the G20 countries. The comparison is in 2018, which grew only 3.80% but previously it was 4.27%. In the last two years and will hamper the pace of the national economy, there has been a contraction in the national manufacturing sector, so it is deemed necessary to receive incentives.

As a form of incentive, the Government provides a stimulus package in the manufacturing sector which is stated in the Ministry of Finance Regulation (PMK) No.23/PMK.03/2020 concerning Tax Incentives for Taxpayers who are affected by the Corona Virus Pandemic and has been official since April 1, 2020. Incentives Tax is one of the Government's efforts to deal with Covid-19 which is financed by the 2020 State Budget with an allocation of Rp. 22.9 trillion, except for social safety nets, national economic recovery programs, and medical aids. Fabrication is expected to benefit from the manufacturing sector tax stimulus to employers and workers.

The importance of this industry in contributing to taxes, of course, the incentive support is still lacking. They need services that make it easier for them to do their tax affairs so that they remain tax compliant and even increase. The Al-based tax service improvement strategy for this industry needs to cover all stages of its business processes that are indicated by the potential for tax debt, such as purchasing, selling, processing, etc. Previous literature has discussed a lot of Al used in the manufacturing process and design of manufacturing companies. Simplify and optimize processes so as to minimize costs, detect excess raw materials, and maximize profits.

However, behind the benefits of AI in the manufacturing industry which is considered to be able to help managers map tax risks, simplify tax reporting, and even detect potential tax errors, in practice tax fraud cases occur in manufacturing companies. The amount of tax from the company's operations has the potential to be an abuse of authority that benefits certain parties. Good supervision from owners, government, auditors, and other parties with an interest in tax issues is very much needed.



## 5. Tax Risk Management

It is becoming increasingly clear that companies need to pay attention to tax risks as well as other risk areas such as money laundering prevention and fiduciary security. In an increasingly transparent environment, organizations are required to clarify their tax risk management framework with third parties such as regulators, tax authorities, new business starters, and service providers. Therefore, it is imperative that businesses prepare now. The purpose of tax risk management as part of an organization's overall business strategy is to avoid unnecessary tax costs while ensuring proper compliance with legal requirements [5]. So that potential risks can be reduced, it is time to implement tax risk management. It is negotiable, because national taxation is required to implement risk management to reduce the potential risk to such a low level. It is not only those who deal directly with taxpayers who must have risk awareness to get to risk culture. However, from top management to the lowest employees.

Besides that, big data methods are becoming an important tool for tax fraud detection around the world [6]. The state of AI in risk management is well-understood by delving deep into the operational defects of the ecosystem [7]. Tax risk management teams will continue to gain from the quick analytics processing of big data sets as cloud-based AI and Machine Learning services become more prevalent, reducing the constraints of more manual risk management and risk analysis procedures in the past. So that the company's goal to achieve compliance, including tax compliance can be achieved more effectively.

### 6. Conclusion

Al optimization in taxes is needed so that convenience services for payers are more guaranteed. However, supervision is the main key to success, because it could be due to design failure or precisely because the data openness factor creates another risk of big data leakage if it is not maintained, especially in the manufacturer's firm. Smart taxation has become an important development trend for tax collection and management in the future. We must face up to the changes brought by artificial intelligence technology to tax management, constantly explore technology, continuously develop application areas, and apply intelligent technology to more taxation services and tax management, including in terms of mitigating tax audit risks that can occur in large companies such as manufacturing. The issue of tax risk management is also important in the future, just like Al, for it is imperative that businesses prepare properly. Risk management itself in



tax issues is useful for mitigating the existence of inflated tax costs. So even though we continue to strive for the adoption of Al in taxes, we still need to ensure a tax management strategy.

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