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Concerns Over the Protection of Taxpayers' Privacy Data on The Core Tax Administration System

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Abstract The modernization of tax systems like Indonesia's Core Tax Administration System (CTAS) offers potential benefits like increased efficiency and effectiveness. However, it also raises significant concerns about the protection of sensitive taxpayer information. This article explores these issues, analyzing the data protection laws in Indonesia, the possible dangers associated with gathering and handling taxpayer information in CTAS, and the strategies to reduce these risks. The article concludes that although CTAS offers numerous advantages, strong data protection measures, including clear regulations, robust security protocols, and transparency, are crucial to ensure taxpayer trust and the overall success of the system. In other words, While the Core Tax Administration System in Indonesia has great potential to optimize tax administration processes, resulting in improved efficiency and effectiveness it is imperative to implement strong data protection measures alongside it to ensure taxpayer privacy is protected. This requires a comprehensive approach that includes clear regulations, strong security protocols, transparency, and accountability. By making the protection of taxpayer privacy a top priority, Indonesia has a chance to create a tax system that is trustworthy, efficient, and respectful of people's basic rights.

Index Terms core tax administration system, data privacy, taxpayer privacy, tax administration, Indonesia

I. Introduction

¬he global shift towards digital tax administration systems has resulted in an increased dependence on technology for managing taxpayer data. While this digital transformation offers potential benefits like improved efficiency, accuracy, and transparency in tax administration, it also raises significant concerns regarding the protection of taxpayer privacy. One clear example of this trend is the Core Tax Administration System (CTAS) that Indonesia has implemented. The collection and analysis of large volumes of sensitive taxpayer information is required by CTAS, which aims to automate and streamline various tax administration procedures. Data consumption, access limits, and data protection are all made more complicated by this. Data breaches, abuse, or unauthorized access have the potential to significantly jeopardize taxpayer privacy and undermine confidence in the tax system [1], [2].

II. Literature Review

The literature on data privacy in tax administration highlights the importance of balancing the need for efficient tax collection with the protection of taxpayer privacy. Studies have shown that trust in the tax administration is crucial for voluntary tax compliance [1], [3]. However, this trust can be eroded if taxpayers perceive that their personal data is not adequately protected. The implementation of digital tax

administration systems, while offering numerous benefits, can exacerbate these concerns if not accompanied by robust data protection measures [4], [5].

With the General Data Protection Regulation (GDPR) in place, the European Union has set a high standard for data protection, especially in the field of tax administration [6]. The GDPR highlights core principles including collecting only necessary data, using data only for its intended purpose, being transparent about data practices, and holding organizations accountable for data protection, which is crucial for safeguarding taxpayer privacy [7]. However, the implementation of similar regulations in other countries, including Indonesia, faces challenges due to differences in legal frameworks, technological capabilities, and cultural norms [8].

A. The Emergence of Core Tax Administration Systems

The increasing digitization of tax administration processes globally has led to the widespread adoption of Core Tax Administration Systems (CTAS). These integrated IT systems streamline tax operations, from taxpayer registration to collection, assessment, and enforcement, promising enhanced efficiency, transparency, and taxpayer service [9], [10]. Indonesia's Directorate General of Taxation (DJP) is about to launch its own CTAS with the goal of enhancing revenue collection and modernizing tax administration [11], [12]. The



shift towards such digital systems, while beneficial, amplifies concerns about the protection of taxpayer privacy, necessitating a robust legal and operational framework [13], [14].

B. The Imperative of Taxpayer Data Privacy

Taxpayer data privacy is paramount in upholding individuals' fundamental right to privacy and fostering trust in the tax system. The accumulation and management of extensive volumes of sensitive personal and financial data by tax authorities necessitate stringent safeguards against unauthorized access, misuse, and breaches [15]. The potential consequences of data breaches, including identity theft, financial fraud, and erosion of public trust, underscore the critical need for robust data protection measures [14], [16].

C. The Indonesian Legal Landscape

While the data protection legislation in Indonesia is constantly changing, it still poses certain problems for tax administration. The Electronic Information and Transactions Law (UU ITE) and Government Regulation No. 71 of 2019 on the Implementation of Electronic Systems and Transactions provide some protection, but there is still a need for a more comprehensive data protection law to fully safeguard taxpayer privacy. The Personal Data Protection Law (UU PDP) was already passed to address these shortcomings and provide a more robust legislative framework for data protection, especially in relation to tax administration [16], [17].

D. International Regulatory Benchmarks

Around the world, privacy laws and practices have been influenced by the General Data Protection Regulation (GDPR) enacted by the European Union [18]. Lawfulness, fairness, transparency, purpose limitation, data minimization, accuracy, storage limitation, integrity and confidentiality, and accountability are some of the fundamental principles of the General Data Protection Regulation (GDPR) that lay the groundwork for a thorough framework for safeguarding personal data [6]. This framework extends to the specific domain of tax administration. While Indonesia's legal framework is still evolving, aligning with international standards like the GDPR can enhance taxpayer data protection and foster greater trust in the tax system [13], [19].

E. The Role of Technology in Data Protection

Technology serves a dual function in the context of taxpayer data privacy. While it facilitates efficient and secure data management through tools like encryption, firewalls, and intrusion detection systems, the increasing sophistication of cyberattacks and the potential for data breaches necessitate continuous vigilance and the adaptation of security measures [20]. The use of emerging technologies like blockchain also offers potential benefits in enhancing data security and transparency in tax administration [21].

F. Balancing Efficiency and Privacy

Implementing CTAS presents a delicate challenge: balancing the need for efficient tax administration with the crucial task of safeguarding taxpayer privacy. While CTAS aims to streamline tax processes and enhance compliance, it also involves handling large volumes of personal data. To strike a fair balance, it is necessary to think about data minimization and purpose limitation, which means that data should only be gathered and utilized for legal tax reasons, with the taxpayer's explicit consent [2], [4].

Protecting taxpayer privacy in the digital age necessitates a multi-pronged strategy that includes strong legal frameworks, technological safeguards, and a culture that values data protection. As Indonesia implements CTAS, prioritizing data privacy from the start is vital. This involves incorporating privacy by design principles into the system's architecture, guaranteeing transparency and accountability in data processing, and promoting a culture of data protection among both tax officials and taxpayers [4], [22].

The implementation of CTAS presents a dual challenge: balancing the need for efficient tax administration with the imperative of protecting taxpayer privacy [23]. The literature highlights the tension between these two objectives. There is a trade-off between the benefits of CTAS, such as the processing and collection of massive amounts of taxpayer data for use in risk assessment and targeted enforcement, and the risks of data breaches and abuse, according to Zeleti et al. [24]. Making sure that taxpayer data is utilized for lawful purposes and secured from unauthorized access or disclosure is a difficulty when it comes to building and implementing secure systems [25].

Indonesia can create a tax administration system that is both efficient and sensitive to its residents' privacy by studying and implementing international best practices [26]–[28].

III. Method

This article adopts a qualitative research approach, drawing on a review of relevant literature, legal documents, and policy analysis [29], [30]. It investigates the legal and regulatory frameworks for data privacy and protection in Indonesia, with a specific focus on how they apply to tax administration. It also analyzes the potential risks attached to the collection and processing of taxpayer data within CTAS, drawing on insights from international best practices and case studies. Finally, it proposes strategies to mitigate these risks and enhance the protection of taxpayer privacy within the CTAS framework.

IV. Results

Indonesia has taken a giant leap forward in its modernization of the tax administration system with the launch of the Core Tax Administration System (CTAS), which holds the promise of increased accountability, transparency, and efficiency. However, our research has uncovered several critical concerns regarding the protection of taxpayer privacy data within this new system.



A. Data sensitivity and security vulnerabilities

Attacks on the CTAS infrastructure, such as data breaches or misuse of taxpayer information, could be possible, according to the study. These vulnerabilities stem from both technical and human factors, including inadequate security measures, lack of employee training, and potential insider threats. The potential consequences of such breaches are severe, ranging from financial loss and identity theft to erosion of public trust in the tax system.

The CTAS handles a vast amount of sensitive taxpayer data, including personal identification, financial information, and tax history. The inherent digital characteristics of this system heighten the susceptibility of this data to unauthorized access, abuse, and breaches, therefore exacerbating concerns such as identity theft, financial fraud, and other infringements against privacy. The possibility for data abuse and breaches highlights the urgent requirement for strong data protection mechanisms within the CTAS. It is critical that taxpayer data remains secure within CTAS. To prevent hacking, data breaches, and unauthorized access, the system must be fortified with strong security measures such as encryption, access controls, and regular security audits [31].

B. Data collection and processing

The CTAS collects and processes a vast amount of sensitive taxpayer information, including personal identification, financial data, and tax history. This gives rise to worries over the possibility of unapproved access and data breaches.

C. Regulatory gaps

Our research shows that there are gaps in the application of Indonesia's Personal Data Protection Law (UU PDP), especially when it comes to the unique setting of tax administration, despite the fact that the country has passed data privacy laws. The lack of clear guidelines and enforcement mechanisms for data protection within CTAS creates uncertainty and potential risks for taxpayer privacy. The absence of a dedicated data protection authority further exacerbates these concerns. More specific regulations governing the collection, use, and sharing of taxpayer data inside CTAS are still necessary, despite Indonesia's progress in establishing data privacy laws, such as the Personal Data privacy Law, which was only recently passed. The rights of taxpayers, the duties of tax authorities, and the procedures for seeking restitution in the event of data breaches or misuse should all be spelled out in detail in the law. The enactment of the Personal Data Protection Law (UU PDP) in Indonesia was a significant milestone in the establishment of a comprehensive legal framework for data privacy, especially in relation to tax administration [32]. However, the effectiveness of these laws depends on their implementation and enforcement, which requires strong governance mechanisms and institutional capacity [33].

D. Transparency and accountability concerns

The research reveals a lack of transparency and accountability in how taxpayer data is managed within CTAS. Many taxpayers have doubts and questions because they do not know exactly what happens to their data when it is collected, used, or shared. These issues are exacerbated by the fact that taxpayers do not have a strong way to access and correct their data. To gain the trust of taxpayers, openness and responsibility are important. When it comes to the collection, use, and sharing of taxpayer data, the tax authorities ought to be forthright. They should also be accountable for any breaches or misuse of data, with clear mechanisms for redress available to taxpayers [2], [22].

E. International data exchange risks

The CTAS involves the exchange of taxpayer data with other government agencies and third parties. This makes one wonder how safe data transfers are and how unwanted parties might get their hands on sensitive information. Additional hurdles for taxpayer privacy protection arise from the growing tendency of exchanging tax information across borders, as shown by programs such as the Automatic Exchange of Information (AEOI). Strict precautions must be taken to avoid misuse and unauthorized access when sensitive tax data is transferred across borders. To provide sufficient protection for taxpayer data shared across borders, the study concluded that, although Indonesia is a member of AEOI, stronger data protection procedures and conformity with international standards are necessary [4], [34].

F. International cooperation

In an era of increasing globalization, international cooperation is paramount for efficient tax administration and robust data protection measures. Indonesia should actively participate in international initiatives and agreements on tax information exchange, while ensuring that these agreements include strong data protection safeguards [35], [36].

G. Enhancing public awareness

Parlaungan [37], Shafik [38], and Susanto and Fiorita [39] all agree that the government should launch public awareness campaigns informing taxpayers of their data privacy rights and obligations.

H. International best practices and lessons learned

International experiences offer valuable insights into the challenges and best practices in protecting taxpayer privacy in digital tax administration systems. Studies from countries like Singapore and the United States highlight the importance of robust security measures, transparency, and accountability in data handling [40], [41]. Cutting-edge technologies like artificial intelligence, blockchain, and encryption can improve data security and open the door to a more concentrated and efficient approach to tax administration, but their use must be



carefully considered with regard to privacy implications [8], [42], [43].

These findings underscore the critical need for a multifaceted approach to address the concerns over taxpayer privacy protection in the CTAS era. The government, tax authorities, and other stakeholders must work collaboratively to strengthen data security measures, bridge regulatory gaps, enhance transparency and accountability, and ensure compliance with international data protection standards [22], [44].

V. Discussion

While the Core Tax Administration System (CTAS) in Indonesia promises to bring efficiency and effectiveness to tax administration, it has also triggered major concerns about safeguarding taxpayer privacy. Because the system collects and handles a large amount of personal data, particularly sensitive financial data, robust security measures are needed to guard against abuse, illegal access, and data breaches. Data protection is essential for tax administration because of the possible repercussions of data breaches, which include identity theft, financial fraud, and reputational damage [45].

Although improving tax administration efficiency and effectiveness is the primary objective of the Core Tax Administration System (CTAS), its implementation in Indonesia has prompted grave concerns regarding the protection of taxpayer privacy. Due to the large amounts of personally identifiable information (including sensitive financial data) that the system collects and processes, there is a clear need for robust security measures to prevent abuse, unauthorized access, and data breaches. The current legal framework in Indonesia, although evolving with the introduction of the Personal Data Protection Law, still presents challenges in ensuring comprehensive data protection, particularly in the context of tax administration [16], [46].

The potential risks associated with the CTAS are substantial. Unauthorized access or leakage of taxpayer personal data could facilitate identity theft, financial fraud, and other forms of cybercrime. The lack of clear guidelines and enforcement mechanisms for data protection in the tax sector further exacerbates these risks. Furthermore, as the utilization of AI and big data analytics continues to grow in tax administration, concerns about data exploitation and profiling are on the rise [2], [22], [47].

The findings from this study highlight the need for a multifaceted approach to address these concerns. First and foremost, the legal framework for data protection in Indonesia needs to be strengthened and specifically tailored to the context of tax administration. The Personal Data Protection Law, while a step in the right direction, needs to be complemented by specific regulations and guidelines that address the unique challenges of protecting taxpayers' privacy data in the digital age [8], [16].

While there has been progress in Indonesian law with the passing of the Personal Data Protection Law, there are still obstacles to achieving complete data protection within the CTAS due to the existing legal frameworks. The rules of the

law concerning data privacy are important, but they could need some tweaking and explaining to make sure they cover the particular problems that the CTAS presents. A strong and flexible legislative framework is required to handle new data protection concerns that may arise due to the system's complexity and the possibility of data exchange with third parties [16], [48].

Second, the concepts of purpose limitation and data minimization ought to be given top priority while implementing CTAS. Personal information should only be gathered and processed as much as is absolutely required for tax administration; any additional use or dissemination of the information should need the taxpayer's express authorization. The use of state-of-the-art technologies such as big data analytics and artificial intelligence (AI) should be heavily controlled to safeguard the privacy of taxpayers [22].

There is concern about the possibility of biases and discriminatory impacts with the use of big data analytics and AI in CTAS, even though it might improve accuracy and productivity. Relying on algorithms and automated decision-making in tax administration requires careful examination to ensure fairness and prevent unintended consequences that could disproportionately impact specific groups of taxpayers. The lack of transparency in algorithmic decision-making can further worsen these concerns, emphasizing the need for increased explainability and accountability when using AI in tax administration [48], [49].

Third, to protect the privacy and integrity of taxpayer information, stringent organizational and technical security protocols must be established. Access controls, encryption, and routine security audits are all part of this process. The Directorate General of Taxes (DJP) should also support training and awareness initiatives to make sure that its employees understand the importance of data privacy and handle taxpayer information correctly [8].

Inadequate data protection in CTAS could have significant economic repercussions. Data breaches and privacy violations can erode public trust in the tax system, leading to reduced tax compliance and revenue collection. Furthermore, concerns about data security can deter foreign investment and hamper economic growth. While implementing robust data protection measures can be costly, the long-term benefits of increased trust, compliance, and economic stability outweigh these costs [8].

Fourth, it is imperative to bolster transparency and accountability mechanisms. Regular updates regarding the gathering, use, and dissemination of taxpayer data are required. In the event of a data breach or misuse, individuals should be able to view and correct their data as well as file official complaints. The DJP should establish clear protocols for managing data breaches and ensure the timely notification of taxpayers in the event of any security incidents [4], [22].

Finally, international cooperation and alignment with global data protection standards are crucial. As tax administration becomes increasingly globalized, Indonesia needs to ensure that its data protection framework is compatible with



international standards and facilitates secure cross-border data exchange for tax purposes [4], [50].

When it comes to safeguarding taxpayer information, there are advantages and disadvantages to implementing CTAS in Indonesia. The system has the ability to make tax administration more efficient and effective, but it also requires strong protections to avoid data breaches and abuse. By strengthening the legal framework, prioritizing data minimization and purpose limitation, implementing strong security measures, enhancing transparency and accountability, and fostering international cooperation, Indonesia can ensure that the benefits of CTAS are realized without compromising the privacy rights of its citizens [2], [41].

VI. Conclusion and Recommendations

While the Core Tax Administration System in Indonesia has great potential to optimize tax administration processes, resulting in improved efficiency and effectiveness.it is imperative to implement strong data protection measures alongside it to ensure taxpayer privacy is protected. This requires a comprehensive approach that includes clear regulations, strong security protocols, transparency, and accountability. By making the protection of taxpayer privacy a top priority, Indonesia has a chance to create a tax system that is trustworthy, efficient, and respectful of people's basic rights.

It is crucial to address the concerns regarding the protection of taxpayer privacy data. Indonesia has the potential to create a tax administration system that is not only effective but also upholds and defends the privacy rights of its citizens through fortifying the legal and regulatory framework, improving data security, encouraging accountability and transparency, and raising public awareness.

The security of taxpayer private data is faced with both opportunities and challenges as a result of CTAS deployment in Indonesia. Although the system has the potential to improve tax administration efficiency and effectiveness, strong security measures are also required to stop data breaches and misuse. By strengthening the legal framework, prioritizing data minimization and purpose limitation, implementing strong security measures, enhancing transparency and accountability, and fostering international cooperation, Indonesia can ensure that the benefits of CTAS are realized without compromising the privacy rights of its citizens.

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