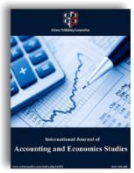
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Research paper



The Impact of Analytic-Based Core Tax System Implementation in The Public Sector: An Innovation Resistance Theory (IRT) approach from the greater Jakarta area

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Abstract

This study focuses on the Coretax system analysis using the Innovation Resistance Theory (IRT) framework. In contrast to the dominant research stream that examines acceptance (TAM/UTAUT), this study emphasizes resistance barriers values, traditions, risks, complexity, and image as determinants of intention and actual use. Innovation Resistance Theory (IRT) is used to analyze five types of barriers: values, traditions, risks, complexity, and image. Data were collected through a survey of 155 registered Coretax taxpayers and analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS). Theoretically, this study extends the application of IRT to the digital pub-lic sector, specifically analytics-based tax technology. The findings confirm that risk and tradition Barriers are more dominant than risk or Image Barriers are more dominant in explaining user resistance to technology adoption, while value, complexity, and image barriers do not show a significant influence, thus providing empirical enrichment to the technology adoption literature in the public sector.

Keywords: *Coretax; Innovation Resistance Theory (IRT); Taxpayers; Innovation Barriers; Technology Adoption.*

1. Introduction

The rapid advancement of information technology has fundamentally transformed public sector administration, including taxation systems. Governments worldwide are increasingly adopting data-driven and analytics-based technologies to improve efficiency, transparency, and accountability in tax administration. In Indonesia, the Directorate General of Taxes (DGT) has introduced Coretax as a strategic digital platform designed to integrate, process, and analyze large volumes of tax data in real time. This system aims to enhance tax compliance monitoring, risk assessment, fraud detection, and decision-making processes that were previously constrained by manual procedures and fragmented legacy systems.

Despite its substantial technological potential, the adoption of Coretax in the public sector has not been fully optimized. While digital tax services such as e-Filing and electronic tax reporting have shown steady growth over the past decade, the actual utilization of advanced analytics-based systems remains relatively limited. This phenomenon suggests that technological benefits alone are insufficient to guarantee successful implementation. In practice, resistance at the user level-stemming from psychological, cultural, and organizational factors-continues to hinder the effective adoption of Coretax within Indonesia's highly procedural and hierarchical bureaucratic environment.

Most prior studies on public sector technology adoption have predominantly relied on acceptance-oriented frameworks, such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). These models primarily focus on perceived usefulness and ease of use as drivers of behavioral intention. However, such perspectives tend to overlook the role of resistance, particularly in public sector organizations where long-established routines, risk aversion, and bureaucratic norms strongly influence user behavior. As a result, the existing literature provides limited insight into why users may delay, resist, or partially adopt advanced digital taxation systems despite recognizing their potential advantages.

To address this limitation, this study adopts Innovation Resistance Theory (IRT) as its theoretical foundation. IRT posits that resistance to innovation is a natural response arising from conflicts between new technologies and users' existing values, traditions, perceptions of risk, perceived complexity, and social image. Rather than viewing resistance as mere opposition, IRT conceptualizes it as a critical determinant that shapes users' intention and actual usage behavior. This perspective is particularly relevant in the context of Coretax implementation, where users are required to shift from familiar manual or semi-digital processes to complex, analytics-driven systems.

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Empirically, research applying IRT to analytics-based taxation systems in the public sector-especially within the Indonesian bureaucratic context-remains scarce. Existing domestic studies largely emphasize technology acceptance, leaving resistance dimensions underexplored. Consequently, there is a clear research gap regarding how value barriers, tradition barriers, risk barriers, complexity barriers, and image barriers influence users' behavioral intention and actual usage of Coretax.

Therefore, this study aims to empirically examine the impact of innovation resistance on the adoption of Coretax in the public sector. Specifically, it investigates how the five IRT resistance barriers affect users' behavioral intention and actual system usage, using survey data from registered taxpayers and Structural Equation Modeling-Partial Least Squares (SEM-PLS) analysis. By positioning resistance as the central explanatory variable, this research contributes to the literature on digital transformation in the public sector and provides practical insights for policymakers seeking to enhance the effectiveness of analytics-based tax administration systems.

2. Literature Review

2.1. Digital transformation and tax administration in the public sector

Digital transformation has become a key strategy for governments in improving efficiency, transparency, and service quality in public sector administration. In the field of taxation, digital technologies enable real-time data processing, risk-based supervision, and improved compliance monitoring, replacing traditional manual and fragmented systems that are prone to inefficiencies and human error (Peters & Pierre, 2018; OECD, 2020). Prior studies indicate that the adoption of e-government systems contributes positively to administrative effectiveness and public trust when supported by adequate institutional readiness (AlHujran et al., 2015).

In Indonesia, the Directorate General of Taxes (DGT) has progressively implemented electronic tax services such as e-Filing and e-SPT, which have significantly increased taxpayer participation in digital reporting (Direktorat Jenderal Pajak, 2020). However, while basic digital services show high adoption rates, more advanced analytics-based systems often face slower diffusion. This suggests that beyond technological availability, behavioral and organizational factors play a crucial role in shaping adoption outcomes (Dwivedi et al., 2019).

2.2. Coretax system in the public sector

Coretax is an analytics-based tax administration system designed to integrate and analyze large volumes of tax data in real time to support compliance monitoring, risk assessment, and fraud detection (Direktorat Jenderal Pajak, 2024). By leveraging big data analytics, Coretax enables tax authorities to improve decision-making accuracy, reduce administrative errors, and enhance fiscal accountability (Plekhanov et al., 2023).

Despite its potential benefits, the implementation of Coretax requires significant changes in users' workflows, analytical skills, and organizational routines. Studies on public sector digital systems suggest that such transformative technologies often encounter resistance when users perceive them as disruptive to established practices or misaligned with organizational culture (Fitriani et al., 2025; Peters & Pierre, 2018). Consequently, the success of Coretax implementation depends not only on its technical capabilities but also on users' readiness to adapt to innovation.

2.3. Innovation resistance theory (IRT)

Innovation Resistance Theory (IRT), introduced by Ram and Sheth (1989), explains why individuals or organizations resist adopting new technologies even when their benefits are well recognized. Unlike acceptance-based models such as TAM or UTAUT, IRT emphasizes resistance as a natural response to innovation that conflicts with existing values, habits, and perceived security. Resistance may manifest as delay, partial adoption, or reluctance rather than outright rejection (Ram & Sheth, 1989).

Heidenreich and Handrich (2015) further extended IRT by highlighting the role of passive resistance in organizational settings, particularly in complex and regulated environments. This perspective is especially relevant to the public sector, where bureaucratic structures, formal procedures, and risk aversion strongly influence user behavior (Laukkanen, 2016). Accordingly, while acceptance-based models explain why users adopt technologies, a resistance-oriented perspective is necessary to understand why users may hesitate, delay, or reluctantly comply with mandated digital systems.

Despite extensive research on digital tax adoption using acceptance-based models such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), prior studies have primarily emphasized perceived usefulness, ease of use, and facilitating conditions as drivers of adoption. However, these models tend to underemphasize resistance-based factors, particularly in contexts where digital systems are institutionally mandated rather than voluntarily adopted. In mandatory public-sector environments, users may comply with system requirements while simultaneously experiencing psychological and functional resistance, a dynamic that acceptance-oriented frameworks do not fully capture. In contrast, Innovation Resistance Theory provides a more suitable lens for examining barriers such as perceived risk, tradition, complexity, and value misalignment, which are especially salient in regulatory systems. Moreover, Indonesia presents a distinctive institutional setting characterized by rapid digital tax reform, evolving compliance regulations, and the structural integration of national identification (NIK) with tax identification numbers (NPWP). These institutional transformations create a unique environment in which resistance dynamics may differ from those observed in voluntary or market-based innovation contexts, thereby necessitating a resistance-oriented theoretical approach.

2.4. Resistance barriers in innovation adoption

IRT identifies five primary barriers that shape resistance to innovation: value, tradition, risk, complexity, and image barriers (Ram & Sheth, 1989). The value barrier occurs when users perceive that an innovation does not provide sufficient additional benefits compared to existing systems. In the context of Coretax, users may believe that current tax administration systems are already adequate, reducing perceived value from adopting a more complex analytics-based platform (Laukkanen, 2016).

The tradition barrier emerges when an innovation conflicts with established work routines and organizational norms. Public sector organizations often rely on long-standing procedures, making users more inclined to maintain familiar practices rather than adopt new technologies (Heidenreich & Kraemer, 2016). The risk barrier relates to users' concerns about uncertainty, including data security, system failure, or reputational risks, which are particularly salient in tax administration involving sensitive information (Claudy et al., 2015).

Additionally, the complexity barrier reflects perceptions that an innovation is difficult to understand or use, which can lower users' confidence and motivation to adopt analytics-based systems (Venkatesh et al., 2003). Finally, the image barrier arises when users associate the innovation with negative social or professional implications, such as the belief that the system is only suitable for technologically skilled individuals (Talukder et al., 2020).

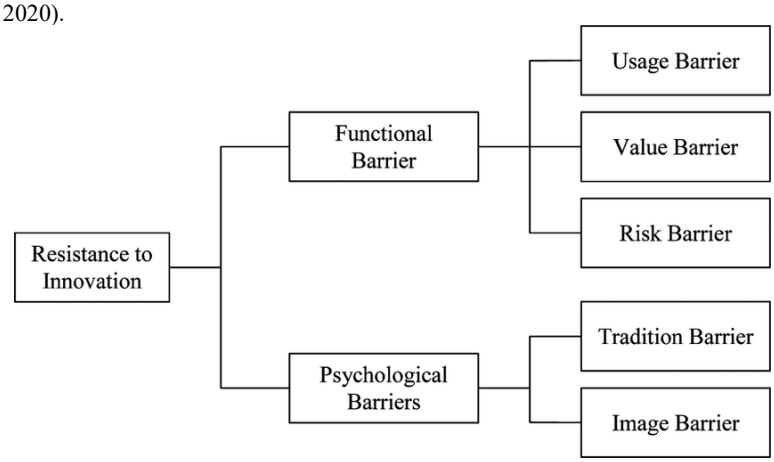


Fig. 1: Conceptual Framework Based on Innovation Resistance Theory (Ram & Sheth, 1989).

2.4.1. Value barrier

The value barrier refers to users' perception that an innovation does not offer sufficient additional benefits compared to existing systems or practices (Ram & Sheth, 1989). Users may resist adoption when they perceive that the costs of learning, adapting, or transitioning to a new system outweigh the expected benefits. In the context of tax administration, users may consider traditional or semi-digital systems to be adequate for completing their tasks, thereby reducing the perceived value of adopting analytics-based platforms.

Previous studies indicate that perceived value plays a critical role in innovation resistance, particularly when innovations require substantial changes in work processes (Laukkanen, 2016). When users do not perceive clear improvements in efficiency, accuracy, or performance, their intention to adopt new technologies tends to decline (Venkatesh et al., 2003). Accordingly, the value barrier is expected to negatively influence users' intention to adopt Coretax.

2.4.2. Tradition barrier

The tradition barrier arises when an innovation conflicts with established habits, routines, or organizational norms (Ram & Sheth, 1989). In public sector organizations, long-standing procedures and formalized workflows often shape employees' behavior, making them less receptive to change. Users who are accustomed to manual processes or legacy systems may perceive new technologies as disruptive to their established work practices.

Research suggests that resistance rooted in tradition is particularly strong in bureaucratic environments where stability and compliance with procedures are highly valued (Heidenreich & Kraemer, 2016). In tax administration, the requirement to shift from familiar procedures to analytics-based systems such as Coretax may intensify resistance, especially among users who prefer predictable and well-known routines (Laukkanen et al., 2008).

2.4.3. Risk barrier

The risk barrier refers to users' concerns about uncertainty and potential negative consequences associated with adopting an innovation (Ram & Sheth, 1989). In the context of information systems, these risks may include data security issues, system failures, errors in analysis, or reputational damage. Such concerns are particularly salient in tax administration, where data sensitivity and accountability are critical.

Empirical studies indicate that perceived risk significantly reduces users' willingness to adopt new digital systems, especially in public sector environments characterized by risk aversion (Claudy et al., 2015). Fear of making mistakes or causing operational disruptions may discourage users from transitioning to analytics-based platforms like Coretax, thereby weakening their intention to adopt the system.

2.4.4. Complexity barrier

The complexity barrier reflects users' perception that an innovation is difficult to understand, learn, or use effectively (Ram & Sheth, 1989). Innovations that require advanced technical skills or significant cognitive effort are more likely to encounter resistance. Analytics-based systems such as Coretax often involve complex interfaces, data interpretation, and analytical reasoning, which may overwhelm users with limited technical backgrounds.

Studies consistently show that high perceived complexity reduces technology adoption, particularly in organizational settings where training and technical support are insufficient (Venkatesh et al., 2003; Heidenreich & Kraemer, 2016). When users perceive Coretax as overly complex, they are more likely to resist adoption or limit their usage of the system.

2.4.5. Image barrier

The image barrier arises when an innovation is associated with negative social or symbolic perceptions that affect users' professional identity (Ram & Sheth, 1989). Users may resist technologies they perceive as threatening their status, competence, or role within an organization. In public sector settings, senior users may associate advanced digital systems with younger or more technologically skilled employees, leading to reluctance to adopt such innovations.

Research suggests that negative perceptions of an innovation's image can significantly inhibit adoption, even when functional benefits are evident (Heidenreich & Handrich, 2015; Talukder et al., 2020). In the case of Coretax, skepticism toward the system's reliability or its association with increased performance pressure may strengthen resistance based on image considerations.

2.4.6. Behavioral intention to adopt coretax

Behavioral intention reflects users' willingness and readiness to adopt a new technology and is widely regarded as a key predictor of actual usage behavior (Venkatesh et al., 2003). Within the IRT framework, resistance barriers are expected to negatively influence behavioral intention by reducing users' motivation to adopt the innovation.
Previous studies indicate that higher levels of perceived resistance are associated with lower intention to use new systems (Laukkanen, 2016; Claudy et al., 2015). In the context of Coretax, users who perceive strong value, tradition, risk, complexity, or image barriers are less likely to form a positive intention to adopt the system.

2.4.7. Actual usage of coretax

Actual usage refers to the extent to which users employ Coretax in their daily tax administration activities. Although behavioral intention is an important predictor of usage, actual adoption may also be influenced by organizational and technical constraints such as infrastructure readiness, training availability, and managerial support (Dwivedi et al., 2019).
In public sector organizations, even users with positive intentions may fail to use new technologies if institutional barriers persist (Yoon et al., 2015). Therefore, examining actual usage alongside behavioral intention provides a more comprehensive understanding of Coretax adoption outcomes.

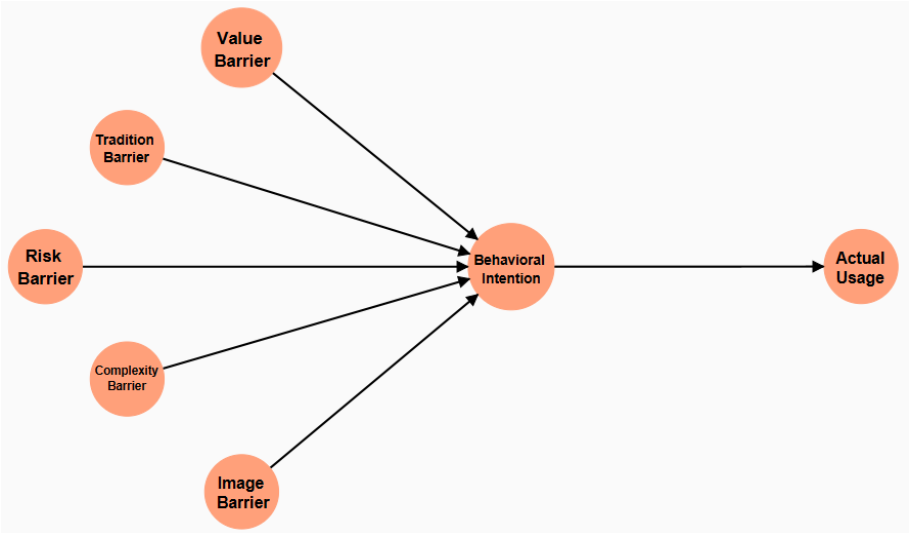


Fig. 2: The Conceptual Framework Used in This Study Is A Modified Model Developed by Theory Ram, S., & Sheth, J. N. (1989).

2.4.8. Value barrier and intention to adopt coretax

The value barrier refers to users' perception that an innovation does not provide sufficient additional benefits compared to existing systems or practices (Ram & Sheth, 1989). Users are likely to resist adoption when the perceived benefits of a new system do not outweigh the costs associated with learning, effort, and adjustment. In the context of tax administration, users may perceive conventional or semi-digital tax systems as adequate, thereby reducing the perceived added value of adopting analytics-based platforms such as Coretax.
Previous studies highlight that perceived value plays a significant role in shaping resistance toward innovation, particularly when technological changes alter established work processes (Laukkanen, 2016). However, in public sector environments where system usage is often institutionally encouraged or mandatory, the impact of value perception on adoption intention may be weakened (Hsieh et al., 2011). Based on Innovation Resistance Theory, value barrier is expected to negatively influence adoption intention.
H1: Value Barrier negatively influences behavioral intention to adopt the Coretax system.

2.4.9. Tradition barrier and intention to adopt coretax

Tradition barrier arises when an innovation conflicts with users' existing habits, routines, and organizational norms (Ram & Sheth, 1989). In public sector institutions, long-established procedures and standardized workflows often create behavioral inertia, making users less receptive to new systems. The transition from traditional or legacy tax processes to an analytics-based system such as Coretax may therefore trigger resistance among users who prefer familiar routines.
Empirical evidence suggests that resistance driven by tradition is particularly strong in bureaucratic environments, where stability and compliance with established procedures are highly valued (Heidenreich & Kraemer, 2016). In taxation contexts, users' attachment to conventional practices can significantly reduce their willingness to adopt new digital platforms (Laukkanen et al., 2008). Accordingly, tradition barrier is expected to negatively influence adoption intention.
H2: Tradition Barrier negatively influences behavioral intention to adopt the Coretax system.

2.4.10. Risk barrier and intention to adopt coretax

Risk barrier refers to users' concerns regarding uncertainty and potential negative consequences associated with the adoption of an innovation (Ram & Sheth, 1989). In digital taxation systems, such risks may include data security breaches, system malfunctions, analytical errors, and potential regulatory or reputational consequences. Given the sensitive nature of tax data, perceived risk becomes a critical factor influencing user behavior.
Prior research consistently demonstrates that perceived risk negatively affects users' intention to adopt e-government and digital financial systems (Claudy et al., 2015; Dwivedi et al., 2017). Users who perceive higher levels of risk tend to be more cautious and reluctant to

transition to new systems, even when potential efficiency gains are evident. Therefore, within the IRT framework, risk barrier is hypothesized to negatively influence adoption intention.
H3: Risk Barrier negatively influences behavioral intention to adopt the Coretax system.

2.4.11. Complexity barrier and intention to adopt coretax

Complexity barrier reflects users' perception that an innovation is difficult to understand, learn, or use effectively (Ram & Sheth, 1989). Analytics-based systems such as Coretax often involve advanced data processing, complex interfaces, and analytical decision-making, which may overwhelm users with limited technical expertise.
Previous studies consistently show that high perceived complexity reduces users' intention to adopt new information systems, particularly in organizational contexts with insufficient training and technical support (Venkatesh et al., 2003; Heidenreich & Kraemer, 2016). Therefore, complexity barrier is expected to negatively influence adoption intention.
H4: Complexity Barrier negatively influences behavioral intention to adopt the Coretax system.

2.4.12. Image barrier and intention to adopt coretax

Image barrier arises when an innovation is associated with unfavorable symbolic meanings or social perceptions that affect users' professional identity (Ram & Sheth, 1989). In the context of analytics-based tax systems, some users may perceive Coretax as a tool that increases monitoring or performance pressure, potentially threatening their sense of autonomy or competence.
While earlier studies indicate that negative image perceptions can hinder technology adoption (Heidenreich & Handrich, 2015), recent research suggests that the effect of image barrier may diminish as digital public services become more institutionalized and socially accepted (Talukder et al., 2020). Nevertheless, image barrier is proposed to negatively influence adoption intention.
H5: Image Barrier negatively influences behavioral intention to adopt the Coretax system.

2.4.13. Intention to adopt coretax and actual usage

Consistent with established behavioral theories, intention to adopt is a strong predictor of actual system usage (Venkatesh et al., 2003). In public sector digital systems, users who demonstrate stronger adoption intentions are more likely to engage actively with the system and integrate it into their daily work practices.
H6:Behavioral intention positively influences actual Coretax usage.

3. Methodology

3.1. Research design

This study adopts a quantitative explanatory research design using a survey-based approach to examine the effects of innovation resistance barriers on the intention to adopt Coretax and its subsequent actual usage. A quantitative approach is appropriate as it enables objective measurement of constructs, hypothesis testing, and statistical validation of causal relationships (Creswell & Creswell, 2018; Sekaran & Bougie, 2016).
The theoretical framework is grounded in Innovation Resistance Theory (IRT), which explains users' resistance to innovation through five barriers: value, tradition, risk, complexity, and image (Ram & Sheth, 1989). This framework is particularly relevant for analyzing resistance toward analytics-based digital systems in public sector taxation. A cross-sectional research design was employed, with data collected at a single point in time to capture users' perceptions, behavioral intentions, and actual usage of Coretax.

3.2. Research context, location, and timeframe

The study was conducted in the context of public sector taxation, focusing on users of the Coretax system. Data were collected from corporate taxpayers registered as Coretax users operating within the Greater Jakarta Area (JABODETABEK), which includes Jakarta, Bogor, Depok, Tangerang, and Bekasi. This region was selected because it represents the administrative and operational center of taxation in Indonesia and serves as an early implementation area for the Coretax system. Data collection took place between September and October 2025, covering questionnaire distribution, response collection, and preliminary data screening.
During the data collection period, the implementation of Coretax operated under a mandatory regulatory framework. The legal basis for Coretax is Peraturan Menteri Keuangan (PMK) No. 81 Tahun 2024 concerning the Core Tax Administration System, which establishes Coretax as the integrated national digital tax platform. This regulation is supported by Undang-Undang Nomor 7 Tahun 2021 tentang Harmonisasi Peraturan Perpajakan (HPP), which mandates the modernization and digital integration of Indonesia's tax administration system. Under this regulatory framework, taxpayers are required to activate their Coretax accounts, with activation strongly encouraged before the end of 2025 as part of the national migration schedule.
Accordingly, Coretax adoption during the study period can be categorized as legally mandatory, although operationally implemented through a phased transition process. This regulatory context is essential for interpreting the study findings, as adoption behavior was influenced not only by users' perceptions of innovation resistance barriers but also by statutory compliance obligations.

3.3. Population and sample

The population of this study consists of all corporate taxpayers who actively use Coretax in managing tax reporting, administration, and compliance activities. A purposive sampling technique was employed to ensure that respondents met predefined criteria relevant to the research objectives, particularly direct experience with Coretax usage.
A total of 155 valid responses were collected and deemed suitable for analysis. The sample size satisfies the recommended requirements for Partial Least Squares-Structural Equation Modeling (PLS-SEM). According to Hair et al. (2010), the minimum sample size should be five to ten times the number of indicators; with 30 indicators, the minimum requirement ranges from 150 to 300 respondents. Additionally, based on the 10-times rule (Barclay et al., 1995; Hair et al., 2014), the minimum required sample size was 50, as the maximum number of structural paths directed at a single construct was five. Therefore, the obtained sample size is considered statistically adequate.

3.4. Data collection method

Primary data were collected using a structured, self-administered questionnaire designed based on the constructs of Innovation Resistance Theory. The questionnaire was distributed online using digital survey platforms to facilitate accessibility and flexibility for respondents. All items were measured using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"), to capture respondents' perceptions regarding innovation resistance barriers, intention to adopt Coretax, and actual system usage. Prior to full-scale data collection, the questionnaire was pilot-tested among selected Coretax users to ensure clarity, readability, and initial reliability.

3.5. Measurement instrument

The research instrument was developed by adapting measurement items from established studies in innovation resistance and technology adoption literature. The questionnaire consisted of two main sections. The first section collected demographic and organizational information, while the second section measured the study constructs. Seven constructs were measured using a total of 30 indicators, including value barrier, tradition barrier, risk barrier, complexity barrier, image barrier, behavioral intention to adopt Coretax, and actual usage of Coretax. All measurement items were adapted to the Coretax context to ensure content validity and conceptual relevance.

3.6. Data analysis technique

Data analysis was conducted using Partial Least Squares-Structural Equation Modeling (PLS-SEM) with SmartPLS software. PLS-SEM was chosen due to its suitability for predictive analysis, its ability to handle complex research models, and its robustness when dealing with moderate sample sizes (Hair et al., 2017). The analysis followed a two-stage procedure. First, the measurement model was evaluated to assess internal consistency reliability, convergent validity, and discriminant validity. Second, the structural model was assessed to test the hypothesized relationships among constructs using path coefficients, t-statistics, and p-values obtained through a bootstrapping procedure.

3.6.1. Common method bias assessment

Given that all constructs were measured using a self-reported, cross-sectional survey administered to the same respondents, the potential for common method variance (CMV) was assessed to ensure the robustness of the findings.
To reduce potential bias procedurally, respondents were assured of anonymity and confidentiality to minimize evaluation apprehension and social desirability bias. In addition, questionnaire items were clearly structured and organized by construct to reduce ambiguity and response pattern tendencies.
Statistically, common method bias was evaluated using the full collinearity variance inflation factor (VIF) approach, which is recommended for PLS-SEM analysis. Following the conservative threshold of 3.3, all full collinearity VIF values were found to be below 3.3. This result indicates that collinearity is not a critical issue and that common method bias does not pose a serious threat to the validity of the structural model.

3.7. Variables and operational definitions

This study includes three types of variables. The independent variables consist of five innovation resistance barriers: value barrier, tradition barrier, risk barrier, complexity barrier, and image barrier. The mediating variable is behavioral intention to adopt Coretax, which reflects users' readiness and willingness to adopt the system. The dependent variable is actual usage of Coretax, representing the extent to which users employ the system in their tax-related activities. Each variable was operationalized based on its theoretical definition and measured using multiple indicators on a Likert scale. This operationalization enables a comprehensive assessment of both users' resistance perceptions and their actual adoption behavior.

4. Results and Interpretations

4.1. Respondent profile and organizational characteristics

This study aims to examine the characteristics of respondents drawn from Coretax users in the public sector environment, particularly within the Directorate General of Taxes (DGT) and related government institutions in the JABODETABEK region (Jakarta, Bogor, Depok, Tangerang, and Bekasi).

Table 1: Respondent Profile

Characteristics	Category	n=155	Percentage
Type of Business Entity	Limited Liability Company (PT)	48	31
	Partnership (Firma)	33	21.3
	Cooperative	42	27.1
	State-Owned Enterprise	2	1.3
	Foundation	29	18.7
	Limited Partnership (CV)	1	0.6
Business Sector	Services	76	49,03
	Trading	33	21,29
	Manufacturing Industry	29	18,71
	Technology	10	6,45
	Construction	3	1,94
	Shipping	1	0,65
	Education	1	0,65
	Aviation	1	0,65
	Banking	1	0,65
Company Size (Annual Turnover)	Small (Turnover > IDR 500 million - IDR 2.5 billion)	98	63,2
	Medium (Turnover > IDR 2.5 billion - IDR 50 billion)	25	16,13

	Large (Turnover > IDR 50 billion)	32	20,65
Head Office Location (JABODETABEK))	Depok	52	33,55
	DKI Jakarta	46	29,68
	Bekasi	25	16,13
	Tangerang	17	10,97
	Bogor	15	9,68
Your Position in the Company	Staff	76	49,03
	Supervisor / Coordinator	47	30,32
	Director / Executive	26	16,77
	Manager	4	2,58
	Head of Division / Department	2	1,29
Number of Employees	1-10	47	30,32
	11-50	69	44,52
	51-200	35	22,58
	201-500	1	0,65
	More than 500	3	1,94

The focus is placed on organizations that have begun implementing the Coretax system for tax data management. Primary data were collected through a structured questionnaire administered to 155 respondents who are directly involved in the use or management of the Coretax system. Table 1 presents the demographic and organizational characteristics of the respondents. The profile is classified based on legal entity type, industry sector, company size (annual turnover), geographic location, job position, and number of employees. This classification provides a comprehensive overview of the organizational contexts in which Coretax is utilized. In terms of legal entity type, respondents are predominantly from limited liability companies (Perseroan Terbatas), accounting for 31% of the sample, followed by cooperatives (27.1%), partnerships (21.3%), and foundations (18.7%). State-owned enterprises and commanditaire vennootschap (CV) represent only a marginal proportion of the respondents. This distribution indicates that the majority of Coretax users in the sample originate from private-sector organizations and non-governmental entities that actively engage with digital tax administration systems.

Regarding industry sector, the largest proportion of respondents operates in the service sector (49.03%), followed by trade (21.29%) and manufacturing (18.71%). Other sectors, including technology, construction, shipping, education, aviation, and banking, are represented in smaller proportions. This sectoral diversity reflects the broad applicability of the Coretax system across different economic activities in the JABODETABEK region. Based on annual turnover, most respondents are affiliated with small enterprises (63.2%), followed by large enterprises (20.65%) and medium-sized enterprises (16.13%). This finding suggests that Coretax adoption is not limited to large organizations but is also prevalent among small and medium-sized enterprises, which constitute a substantial portion of the tax base.

From a geographic perspective, respondents are distributed across the JABODETABEK region, with the highest concentration in Depok (33.55%) and Jakarta (29.68%), followed by Bekasi (16.13%), Tangerang (10.97%), and Bogor (9.68%). This distribution indicates that the implementation and usage of Coretax are relatively widespread across the metropolitan area.

In terms of job position, nearly half of the respondents occupy staff-level roles (49.03%), followed by supervisors or coordinators (30.32%). Senior-level positions, including directors or top executives, account for 16.77% of the sample, while managers and department heads represent a smaller proportion. This composition suggests that Coretax usage spans both operational and managerial levels within organizations. Finally, with respect to organizational size measured by number of employees, most respondents work in organizations with 11-50 employees (44.52%), followed by those with 1-10 employees (30.32%) and 51-200 employees (22.58%). Organizations with more than 200 employees constitute only a small fraction of the sample. Overall, these findings indicate that Coretax has been adopted across organizations of varying sizes.

4.2. Respondent experience and tax administration characteristics

In addition to organizational characteristics, this study also examines respondents' experience related to tax administration and Coretax usage. the distribution of respondents based on taxpayer status, tax office affiliation, frequency of Coretax usage, and level of tax compliance. With respect to taxpayer status, the majority of respondents are classified as taxable entrepreneurs (Pengusaha Kena Pajak/PKP), accounting for 67.1% of the sample, while the remaining 32.9% are non-PKP. This distribution indicates that most respondents are subject to more complex tax obligations, which may increase their reliance on analytics-based tax systems such as Coretax.

In terms of administrative affiliation, respondents are primarily associated with Primary Tax Offices (KPP Pratama) in Jakarta (43.23%), followed by Tax Service Branch Offices (KCP) (35.48%) and Central Tax Offices (KPP Pusat) (21.29%). This pattern reflects the concentration of tax administration activities within the Jakarta metropolitan area. Regarding frequency of system usage, the majority of respondents report using Coretax on a weekly basis (40.00%), followed by monthly usage (26.45%) and daily usage (22.58%). Only a small proportion of respondents report using the system occasionally (9.68%), and very few indicate that they have never used Coretax (1.29%). These findings suggest that Coretax is actively utilized by most respondents and has been integrated into routine tax-related activities.

Finally, in terms of tax compliance, more than half of the respondents (54.84%) report being highly compliant, consistently fulfilling their tax obligations on time. Another 36.77% indicate moderate compliance, while only 8.39% fall into the non-compliant category. This distribution suggests that the overall level of tax compliance among respondents is relatively high, providing a suitable context for examining the relationship between Coretax usage, adoption intention, and innovation resistance.

4.3. Overall descriptive overview

Table 2: Normality, Individual Indicator Consistency, Convergent Validity, and Internal Consistency Reliability

Variable	Indikator	Mean	Loading Faktor	Skewness	Kurtosis	Standard Deviation
Actual Usage (AC 1)	I frequently utilize Coretax for corporate tax reporting purposes.	4.426	0.719	-1.748	3.087	0.834
Actual Usage (AC 2)	I use Coretax to conduct analyses of corporate taxation data.	4.103	0.841	-1.453	2.440	0.958
Actual Usage (AC 3)	Coretax is integrated into the preparation of my company's tax reports.	4.142	0.714	-1.527	2.475	0.993
Actual Usage (AC 4)	I regularly access Coretax to monitor my company's tax obligations.	4.232	0.733	-1.245	1.235	0.893

Actual Usage (AC 5)	I routinely utilize the compliance-check features of Coretax for my company.	4.077	0.891	-1.098	0.612	1.099
Image Barrier (HC 1)	The use of Coretax does not align with the professional image or profile of my unit or role within the company.	2.419	0.843	0.642	-0.124	1.009
Image Barrier (HC 2)	Colleagues within my organization perceive the use of Coretax unfavorably.	1.781	0.717	1.016	0.585	0.882
Image Barrier (HC 3)	I perceive that I lack adequate technical competence to use Coretax effectively.	1.826	0.701	1.216	0.600	1.030
Image Barrier (HC 4)	Coretax appears difficult to learn.	1.877	0.814	0.897	-0.535	1.097
Complexity Barrier (HK 1)	The operational workflow of Coretax is confusing for corporate tax-related processes.	1.729	0.832	0.834	-0.817	0.959
Complexity Barrier (HK 2)	I require specialized training to be able to use Coretax within my company.	2.116	0.736	0.879	1.262	0.718
Complexity Barrier (HK 3)	The terminology and functional features of Coretax are complex for corporate tax tasks.	2.058	0.766	0.661	-0.260	0.910
Complexity Barrier (HK 4)	The use of Coretax involves multiple steps that are time-consuming for the company.	1.948	0.704	0.607	-1.038	1.052
Value Barrier (HN 1)	The benefits provided by Coretax are not commensurate with the effort required from the company.	1.684	0.751	1.435	1.654	0.955
Value Barrier (HN 2)	Transitioning to Coretax does not offer significant advantages compared to previous methods used by the company.	1.774	0.753	1.433	2.434	0.862
Value Barrier (HN 3)	The time and effort required to use Coretax outweigh the benefits obtained by the company.	1.716	0.787	1.376	1.386	0.949
Value Barrier (HN 4)	Learning to use Coretax is not justified by the benefits it delivers to the company.	2.413	0.804	0.404	-0.641	0.962
Risk Barrier (HR 1)	I am concerned about the possibility of entering incorrect corporate data when using Coretax.	1.865	0.729	0.932	0.139	0.984
Risk Barrier (HR 2)	I am concerned that the company may incur higher tax payments than required when using Coretax.	1.794	0.793	1.179	0.536	1.088
Risk Barrier (HR 3)	I am concerned that corporate tax payments may be transmitted to an incorrect destination or billing code.	2.161	0.776	0.845	1.721	0.766
Risk Barrier (HR 4)	I am concerned about potential security breaches of the company's account or session when using Coretax.	2.219	0.717	0.215	-1.004	1.018
Tradition Barrier (HT 1)	I feel more comfortable with the company's existing tax procedures than with Coretax.	2.058	0.835	0.952	0.569	1.043
Tradition Barrier (HT 2)	Coretax conflicts with established organizational culture or existing work regulations within the company.	2.181	0.830	0.780	-0.317	1.215
Tradition Barrier (HT 3)	I am reluctant to abandon long-established procedures currently applied by the company.	1.897	0.704	0.907	-0.500	1.102
Tradition Barrier (HT 4)	The adoption of Coretax disrupts well-established work routines within the company.	1.806	0.723	1.245	1.487	0.902
Behavioral Intention (NC 1)	I intend to use Coretax in my corporate tax-related activities.	4.316	0.778	-0.785	-0.311	0.768
Behavioral Intention (NC 2)	I plan to use Coretax for my company's tax processes.	4.194	0.920	-0.800	0.018	0.873
Behavioral Intention (NC 3)	I will make an effort to continue using Coretax within my organization.	4.148	0.703	-1.028	1.034	0.886
Behavioral Intention (NC 4)	I intend to use Coretax on a regular basis in my work.	4.200	0.915	-0.786	-0.196	0.897

Table 2 presents the descriptive statistics and distributional characteristics of all measurement indicators, including mean values, factor loading's, skewness, kurtosis, and standard deviations. This analysis provides an initial overview of respondents' perceptions toward the Coretax system and allows for a preliminary assessment of indicator quality and data distribution prior to structural model testing. Descriptive analysis is essential in PLS-SEM studies to ensure that the data are suitable for further multivariate analysis and hypothesis testing (Hair et al., 2019; Kline, 2016).

Overall, the results indicate a clear contrast between high levels of system usage and adoption intention and relatively low levels of perceived resistance across all Innovation Resistance Theory (IRT) barriers.

4.3.1. Descriptive statistics of actual usage

The indicators measuring Actual Usage report high mean values ranging from 4.077 to 4.426, suggesting frequent and consistent use of Coretax for corporate tax reporting, data analysis, compliance monitoring, and routine tax-related activities. High mean scores on usage indicators generally indicate habitual system utilization and institutionalized use within organizations (Venkatesh et al., 2012).

All Actual Usage indicators demonstrate factor loading's above the recommended threshold of 0.70 (Hair et al., 2017), with AC5 showing the highest loading (0.891). This finding suggests that the use of compliance-check features constitutes a central component of actual Coretax usage. The negative skewness observed across these indicators indicates a concentration of responses toward strong agreement, further confirming high levels of system engagement among respondents.

4.3.2. Descriptive statistics of image and complexity barriers

Indicators related to the Image Barrier exhibit relatively low mean values, ranging from 1.781 to 2.419. These results suggest that respondents generally do not perceive Coretax usage as conflicting with their professional image, social standing, or perceived technical competence. Low mean scores on image-related resistance are commonly interpreted as weak social or symbolic barriers to innovation adoption (Ram & Sheth, 1989; Talukder et al., 2020). Factor loading's between 0.701 and 0.843 indicate that the indicators reliably capture the image barrier construct.

Similarly, Complexity Barrier indicators report low to moderate mean values (1.729 to 2.116), indicating that respondents tend to perceive Coretax as relatively manageable in terms of usability, terminology, and procedural requirements. Although some respondents acknowledge the need for training or perceive certain processes as complex, the overall perception of system complexity remains limited. Positive skewness values and acceptable kurtosis levels suggest non-normal but acceptable distributions, while factor loading's ranging from 0.704 to 0.832 demonstrate adequate indicator reliability (Hair et al., 2017).

4.3.3. Descriptive statistics of value and risk barriers

For the Value Barrier, mean values range from 1.684 to 2.413, indicating that respondents largely disagree with statements suggesting that Coretax does not provide sufficient benefits relative to the effort required. This pattern implies that users generally perceive Coretax as offering adequate value for corporate tax administration. According to Innovation Resistance Theory, low value barriers reflect users' recognition of the innovation's relative advantage over existing practices (Ram & Sheth, 1989; Laukkanen, 2016). Factor loading's between 0.751 and 0.804 further confirm the reliability of this construct.

The Risk Barrier indicators show mean values between 1.794 and 2.219, reflecting moderate concerns related to data entry errors, payment inaccuracies, billing misdirection, and security risks. While such concerns are present, the relatively low mean scores suggest that perceived risk does not dominate users' overall evaluation of Coretax. This finding aligns with prior research indicating that perceived risk in digital public sector systems often exists but does not necessarily impede adoption when institutional safeguards and system reliability are perceived as sufficient (Claudy et al., 2015). Factor loading's ranging from 0.717 to 0.793 indicate satisfactory measurement quality.

4.3.4. Descriptive statistics of tradition barrier and behavioral intention

Indicators measuring the Tradition Barrier report mean values ranging from 1.806 to 2.181, suggesting a moderate preference for existing procedures over the Coretax system. Although some resistance related to established routines and organizational culture is evident, the overall tendency indicates that tradition-based resistance is not a dominant obstacle to adoption. Previous studies suggest that such barriers tend to diminish as digital systems become embedded within organizational workflows (Laukkanen et al., 2008; Heidenreich & Kraemer, 2016). Factor loading's for this construct range from 0.704 to 0.835, confirming adesquate indicator reliability.

In contrast, the Behavioral Intention indicators display high mean values ranging from 4.148 to 4.316, indicating a strong intention among respondents to continue using Coretax in their corporate tax activities. Behavioral intention is widely recognized as a strong predictor of actual system usage (Venkatesh et al., 2003). The high factor loading's observed for NC2 (0.920) and NC4 (0.915) reflect a strong commitment to sustained system use, while negative skewness values indicate that most respondents express strong agreement with continued adoption intentions.

4.3.5. Summary of descriptive findings

In summary, the descriptive statistics presented in Table 1 reveal a consistent pattern of high actual usage and strong behavioral intention toward Coretax, accompanied by relatively low perceptions of innovation resistance across image, complexity, value, risk, and tradition barriers. The satisfactory distributional properties and strong factor loading's across all indicators support the adequacy of the measurement model and provide a robust empirical foundation for subsequent structural model analysis (Hair et al., 2019).

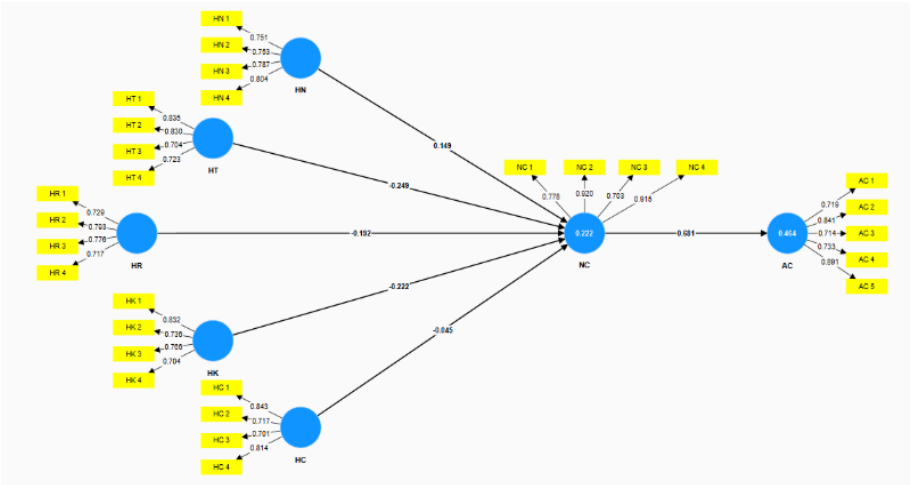


Fig. 3: Outer Model Testing.

4.4. Discriminant validity

Discriminant validity aims to ensure that each latent construct in the research model possesses adequate conceptual distinctiveness and does not overlap in measuring the phenomena under investigation. In other words, discriminant validity reflects the extent to which a construct is truly different from other constructs within the structural model.

In studies employing Partial Least Squares-Structural Equation Modeling (PLS-SEM), the assessment of discriminant validity represents a crucial step in evaluating the measurement model (outer model). Hair et al. (2019) recommend employing more than one approach to obtain more robust and reliable results. Accordingly, this study assesses discriminant validity using two methods: the Heterotrait-Monotrait Ratio (HTMT) and the Fornell-Larcker criterion.

4.4.1. Heterotrait-monotrait ratio (HTMT)

The Heterotrait-Monotrait Ratio (HTMT) is considered a more stringent and sensitive approach for assessing discriminant validity compared to traditional methods. HTMT measures the ratio of correlations between indicators of different constructs (heterotrait) to correlations between indicators within the same construct (monotrait). According to Hair et al. (2019), HTMT values below 0.90-or more conservatively below 0.85-indicate that discriminant validity has been established.

Table 4: Heterotrait-Monotrait Ratio (HTMT)

	AC	HC	HK	HN	HR	HT	NC
Actual Usage (AC)							
Image Barrier (HC)	0.465						
Complexity Barrier (HK)	0.608	0.779					
Value Barrier (HN)	0.346	0.797	0.792				
Risk Barrier (HR)	0.353	0.435	0.507	0.349			
Tradition Barrier (HT)	0.580	0.868	0.822	0.878	0.386		
Behavioral Intention (NC)	0.772	0.371	0.468	0.283	0.400	0.407	

Based on the analysis conducted using SmartPLS, all HTMT values among the constructs in this study are below the maximum threshold of 0.90. The highest HTMT values are observed between the Tradition Barrier (HT) and the Value Barrier (HN) at 0.878, as well as between the Tradition Barrier (HT) and the Complexity Barrier (HK) at 0.822. Although relatively high, these values remain within acceptable limits and do not indicate problematic construct overlap.

Furthermore, the Image Barrier (HC) construct consistently exhibits HTMT values below the threshold in relation to all other constructs, such as its relationship with Actual Coretax Usage (AC) (0.465), Complexity Barrier (HK) (0.779), and Behavioral Intention to Adopt Coretax (NC) (0.371). These findings suggest that the Image Barrier construct demonstrates adequate conceptual separation from the other constructs. Other inter-construct relationships also display relatively low HTMT values, for instance, the relationship between the Risk Barrier (HR) and Actual Coretax Usage (AC) (0.353), as well as between Behavioral Intention to Adopt Coretax (NC) and the Value Barrier (HN) (0.283). These results further support the conclusion that each construct in the research model captures a distinct conceptual domain.

Overall, the findings confirm that all constructs in the model satisfy the criteria for discriminant validity based on the HTMT approach.

4.4.2. Fornell-larcker criterion

In addition to HTMT, discriminant validity in this study is also assessed using the Fornell-Larcker criterion. This method compares the square root of the Average Variance Extracted (AVE) for each construct with the correlations between that construct and other constructs in the model. According to Fornell and Larcker (1981), discriminant validity is established when the square root of AVE for a construct exceeds its correlations with other constructs.

The results indicate that the square root of AVE for each construct is higher than its correlations with all other constructs. This finding suggests that each construct explains its own indicators more effectively than it explains indicators associated with other constructs.

Therefore, based on the Fornell-Larcker criterion, discriminant validity of the measurement model is confirmed, indicating that the model is suitable for further evaluation of the structural model (inner model).

4.4.3. Reliability and convergent validity assessment

The reliability and convergent validity of the measurement model were assessed using Cronbach's alpha, composite reliability (ρa and ρc), and average variance extracted (AVE), following the recommendations for PLS-SEM analysis (Hair et al., 2019).

Table 6: Construct Reliability and Convergent Validity Results

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Actual Usage (AC)	0.843	0.887	0.887	0.613
Image Barrier (HC)	0.777	0.792	0.854	0.595
Complexity Barrier (HK)	0.758	0.763	0.846	0.579
Value Barrier (HN)	0.790	0.817	0.857	0.599
Risk Barrier (HR)	0.754	0.767	0.841	0.569
Tradition Barrier (HT)	0.797	0.871	0.857	0.601
Behavioral Intention (NC)	0.848	0.851	0.900	0.696

Note: Cronbach's alpha ≥ 0.70 indicates acceptable internal consistency reliability. Composite reliability (ρa and ρc) ≥ 0.70 confirms construct reliability. AVE ≥ 0.50 indicates adequate convergent validity (Hair et al., 2014; Henseler et al., 2016).

As shown in Table 6, all constructs demonstrate satisfactory internal consistency reliability. The Cronbach's alpha values range from 0.754 to 0.848, exceeding the minimum recommended threshold of 0.70. This indicates that the measurement items for each construct are internally consistent and reliably capture the underlying latent variables. In addition, the composite reliability values, measured using both ρa and ρc, further confirm the robustness of the measurement model. All constructs exhibit composite reliability (ρc) values above 0.84, with the highest reliability observed for Behavioral Intention to Adopt Coretax (NC) (ρc = 0.900). These results indicate a high level of construct reliability and support the suitability of the indicators in representing their respective latent constructs.

Convergent validity is evaluated using the Average Variance Extracted (AVE) criterion. The AVE values for all constructs range between 0.569 and 0.696, exceeding the recommended threshold of 0.50. This suggests that each construct explains more than 50% of the variance of its indicators on average, thereby confirming adequate convergent validity. Overall, the findings indicate that the measurement model meets the established criteria for internal consistency reliability and convergent validity, providing a solid foundation for subsequent structural model (inner model) analysis.

4.5. R-squared

The explanatory power of the structural model was assessed using the coefficient of determination (R^2) and the adjusted R^2 values for the endogenous constructs. In PLS-SEM, R^2 represents the proportion of variance in an endogenous construct that is explained by its predictor constructs, with values of 0.75, 0.50, and 0.25 commonly interpreted as substantial, moderate, and weak explanatory power, respectively (Hair et al., 2019).

Table7: R Square

	R-square	R-square adjusted
Actual Coretax Usage (AC)	0.464	0.460
Behavioral Intention (NC)	0.222	0.196

As reported in Table 7, the R^2 value for Behavioral Intention to Adopt Coretax (NC) is 0.222, with an adjusted R^2 of 0.196. This indicates that the innovation resistance barriers-namely value, tradition, risk, complexity, and image barriers-collectively explain approximately 22.2% of the variance in users' intention to adopt the Coretax system. Although the explanatory power is classified as weak to moderate, it remains acceptable in behavioral and public-sector technology adoption research, where individual intentions are influenced by multiple contextual and institutional factors beyond the scope of the model.

Furthermore, the Actual Coretax Usage (AC) construct exhibits an R^2 value of 0.464 and an adjusted R^2 of 0.460, indicating a moderate level of explanatory power. This finding suggests that behavioral intention to adopt Coretax explains nearly 46.4% of the variance in actual system usage, highlighting the central role of intention as a key determinant of technology use behavior. Overall, the R^2 results demonstrate that the proposed structural model provides meaningful explanatory power, particularly in explaining actual Coretax usage, and supports the theoretical assumption that adoption intention serves as a strong predictor of actual usage behavior.

Table 8: Direct Effect Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Image Barrier (HC)->Behavioral Intention (NC)	-0.045	-0.088	0.153	0.297	0.383
Complexity Barrier (HK)->Behavioral Intention (NC)	-0.222	-0.173	0.142	1.561	0.059
Value Barrier (HN)->Behavioral Intention (NC)	0.149	0.109	0.146	1.022	0.153
Risk Barrier (HR)->Behavioral Intention (NC)	-0.192	-0.229	0.093	2.058	0.020
Tradition Barrier (HT)->Behavioral Intention (NC)	-0.249	-0.222	0.128	1.951	0.026
Behavioral Intention (NC) -> Actual Coretax Usage (AC)	0.681	0.686	0.044	15.323	0.000

The structural model was evaluated by examining the path coefficients, t-statistics, and p-values obtained through the bootstrapping procedure in SmartPLS. Table 8 presents the results of the direct effect analysis, which assesses the proposed relationships between innovation resistance barriers, behavioral intention to adopt Coretax, and actual system usage.

The results indicate that the Risk Barrier (HR) has a negative and statistically significant effect on Behavioral Intention to Adopt Coretax (NC) ($\beta = -0.192$, $t = 2.058$, $p = 0.020$). This finding suggests that higher perceived risks-such as concerns regarding data accuracy, payment errors, and system security-significantly reduce users' intention to adopt the Coretax system. The result supports the proposition of Innovation Resistance Theory, which emphasizes perceived risk as a critical inhibitor of technology adoption, particularly in high-stakes public sector contexts.

Similarly, the Tradition Barrier (HT) is found to have a negative and significant influence on behavioral intention ($\beta = -0.249$, $t = 1.951$, $p = 0.026$). This indicates that users who are more attached to existing procedures, routines, and organizational norms are less inclined to adopt Coretax. The finding highlights the role of habitual practices and organizational inertia in shaping resistance to tax systems. In contrast, the Image Barrier (HC) does not exhibit a significant effect on behavioral intention ($\beta = -0.045$, $t = 0.297$, $p = 0.383$). This result implies that perceptions related to professional image, social status, or perceived competence are not decisive factors in influencing users' intention to adopt Coretax. Likewise, the Complexity Barrier (HK) shows a negative but statistically non-significant effect on behavioral intention ($\beta = -0.222$, $t = 1.561$, $p = 0.059$), indicating that although perceived system complexity may discourage adoption, its impact is not sufficiently strong to be considered a key determinant in this study.

Unexpectedly, the Value Barrier (HN) demonstrates a positive but non-significant relationship with behavioral intention ($\beta = 0.149$, $t = 1.022$, $p = 0.153$). This finding indicates that perceived lack of value does not significantly inhibit users' intention to adopt Coretax. The positive direction of the coefficient differs from the theoretical expectation of Innovation Resistance Theory, which posits that higher value-related resistance should reduce adoption intention.

However, this result can be understood within the regulatory context in which Coretax operates. As a nationally implemented digital tax administration system supported by PMK No. 81 Tahun 2024 and the Harmonization of Tax Regulations Law (HPP), Coretax adoption is embedded within institutional compliance requirements. Consequently, usage decisions are not entirely voluntary but are influenced by regulatory obligations and administrative enforcement. In such mandatory or semi-mandatory environments, users may continue to express intention to adopt the system regardless of their cost–benefit evaluations or perceived relative advantage.

This finding suggests that under conditions of institutional enforcement, the explanatory power of value-based resistance may be attenuated. Rather than contradicting Innovation Resistance Theory, the non-significant positive coefficient indicates that value considerations become less decisive when adoption is structurally linked to compliance obligations. Therefore, perceived value may play a secondary role compared to risk perceptions and habitual attachment in shaping behavioral intention within public sector digital systems.

Finally, the relationship between Behavioral Intention to Adopt Coretax (NC) and Actual Coretax Usage (AC) is found to be positive and highly significant ($\beta = 0.681$, $t = 15.323$, $p < 0.001$). This result confirms that behavioral intention is a strong predictor of actual system use, consistent with prior technology adoption literature and reinforcing the validity of intention-based models within the PLS-SEM framework. Overall, the hypothesis testing results indicate that Risk Barrier and Tradition Barrier are the only resistance factors that significantly influence behavioral intention to adopt Coretax, while behavioral intention itself plays a pivotal role in explaining actual system usage. These findings provide partial empirical support for the proposed research model and underscore the importance of addressing risk perceptions and entrenched practices to enhance the adoption of analytics-based tax systems in the public sector.

5. Implications

5.1. Theoretical implications

This study offers several important theoretical contributions to the literature on digital taxation systems and technology adoption, particularly within the framework of Innovation Resistance Theory.

First, this research refines IRT by demonstrating that resistance mechanisms operate differently in mandatory or semi-mandatory digital systems. While IRT was originally developed in voluntary innovation contexts where adoption decisions are shaped primarily by cost–benefit evaluations, the Coretax case shows that institutional enforcement and compliance obligations alter the relative importance of resistance barriers. In mandatory environments, value-based resistance becomes less decisive, whereas risk and tradition barriers remain influential. This suggests that IRT requires contextual adaptation when applied to legally enforced digital platforms.

Second, the findings indicate that IRT behaves differently in coercive institutional settings compared to voluntary market contexts. In consumer environments, perceived value often plays a dominant role in shaping adoption decisions. However, within regulated public-sector systems, behavioral intention appears to be influenced more strongly by perceived operational risks and attachment to established routines. This shifts the explanatory emphasis from benefit evaluation to risk management and institutional alignment, thereby extending IRT by incorporating regulatory pressure as a boundary condition affecting resistance dynamics.

Third, this study introduces a conceptual distinction between technological complexity and regulatory complexity. Although the complexity barrier was statistically insignificant, this does not imply the absence of difficulty in system adoption. Rather, complexity in the Coretax context arises primarily from regulatory and procedural requirements—such as detailed transaction reporting, documentation obligations, and billing classifications—rather than from interface design or system functionality alone. By distinguishing regulatory complexity from technological complexity, this study refines IRT for application in institutional digital systems where resistance may stem from structural compliance demands rather than purely technical challenges.

Fourth, the strong and significant relationship between behavioral intention and actual usage confirms that resistance mechanisms continue to operate indirectly through intention, even under coercive regulatory conditions. This finding bridges IRT with intention-based models such as the Theory of Planned Behavior and the Technology Acceptance Model, suggesting theoretical compatibility between resistance-based and acceptance-based perspectives in explaining digital adoption in the public sector.

Finally, by empirically validating IRT constructs in a developing-country public-sector context, this study contributes to the broader digital transformation literature. The findings demonstrate that organizational routines, perceived system instability, and regulatory complexity jointly shape resistance toward government-mandated digital platforms. These insights indicate that future theoretical models should integrate resistance-based perspectives with institutional and compliance-oriented frameworks to more accurately explain adoption behavior in mandatory digital environments.

5.2. Practical implications

The findings of this study provide several practical implications for policymakers, tax authorities, and system developers involved in the implementation and management of the Coretax system. Given that risk barriers and tradition barriers significantly influence behavioral intention, practical interventions should prioritize reducing perceived risks and addressing users' resistance to changing established tax practices.

First, the significant negative effect of risk barriers highlights the importance of strengthening users' trust in the Coretax system. Tax authorities should enhance system reliability by improving server capacity, ensuring system stability during peak reporting periods, and providing real-time system performance monitoring. Frequent system errors, maintenance downtime, and failures in data synchronization (e.g., between NIK and NPWP) should be treated as critical risk factors rather than technical inconveniences. Clear communication regarding data security, backup mechanisms, and legal safeguards is also necessary to reduce concerns related to data loss, reporting errors, and potential tax sanctions.

Second, the significance of the tradition barrier indicates that resistance stems from users' dependence on previous reporting practices and accounting routines. The shift from file-upload-based reporting to transaction-level general ledger input requires substantial adjustments, particularly for small businesses and self-employed taxpayers. To mitigate this barrier, tax authorities should provide structured transition mechanisms, including parallel reporting options, simplified bookkeeping pathways for eligible taxpayers, and standardized mapping between financial accounting records and tax accounting formats.

Third, although image, complexity, and value barriers were statistically insignificant, continuous improvement in usability remains essential. Practical system enhancements should focus on reducing procedural complexity in billing creation, stabilizing billing code classifications, and minimizing discrepancies between identification systems. User-centered system design, supported by direct practitioner feedback, can prevent operational confusion and reduce the risk of misreporting and incorrect tax payments.

Fourth, the strong effect of behavioral intention on actual Coretax usage underscores the importance of strengthening positive user intentions through consistent support mechanisms. Practical strategies include intensive training programs, digital tutorials, responsive help desk services, and expanded access to technical assistance both online and at tax offices. Communication campaigns emphasizing efficiency, compliance certainty, and long-term administrative benefits may further reinforce users' willingness to adopt and continue using the system.

Overall, these practical implications indicate that successful Coretax implementation requires not only functional technology but also risk management strategies, adaptive transition support, and continuous user engagement to reduce resistance and ensure sustainable system usage.

5.3. Policy implications

The results of this study offer important policy implications for government institutions and regulatory bodies responsible for the design and implementation of digital taxation systems. The identification of significant behavioral barriers emphasizes the need for policies that go beyond technical deployment and explicitly address users' psychological and institutional readiness.

First, the strong influence of risk barriers suggests that policymakers should prioritize regulatory frameworks governing data protection, system accountability, and service continuity. Clear legal provisions regarding system failures, data inaccuracies, and reporting errors are necessary to reduce uncertainty and protect taxpayers from unintended compliance risks caused by technical malfunctions. Policy assurance mechanisms can strengthen public confidence in digital tax platforms such as Coretax.

Second, the effect of the tradition barrier implies that compulsory enforcement alone is insufficient to ensure effective adoption. Policymakers should implement phased transition policies that allow gradual migration from legacy systems to Coretax. Temporary administrative simplifications, extended adjustment periods, and differentiated reporting obligations for small taxpayers and microenterprises may reduce resistance arising from mismatches between regulatory expectations and users' accounting capacities.
Third, although image, complexity, and value barriers were not statistically significant, policymakers should remain attentive to their long-term implications. Continuous policy evaluation is required to ensure that digital tax systems remain accessible, user-friendly, and aligned with taxpayers' operational realities. Policies supporting digital literacy, standardized reporting structures, and inclusive system design can prevent future inequalities in system adoption.
Finally, the strong relationship between behavioral intention and actual system usage highlights the strategic importance of policy communication. Policymakers should adopt transparent and consistent communication strategies that emphasize system benefits, compliance clarity, and institutional support. Effective dissemination of policy objectives, system updates, and user guidance can strengthen taxpayers' intention to adopt and sustain the use of digital taxation platforms. In summary, digital tax policy should integrate regulatory protection, behavioral transition mechanisms, and continuous governance to ensure that national digital taxation systems such as Coretax achieve sustainable adoption and effective utilization.

6. Conclusion

This study examined the determinants of digital tax system adoption by integrating resistance-related constructs and behavioral intention within a Partial Least Squares–Structural Equation Modeling (PLS-SEM) framework. Specifically, it analyzed how image, complexity, value, risk, and tradition barriers influence taxpayers' intention to adopt the Coretax system and how this intention translates into actual system usage.
The empirical findings reveal that risk and tradition barriers exert a significant negative effect on behavioral intention, indicating that concerns regarding system reliability, data security, and entrenched administrative routines remain primary obstacles to digital tax adoption. In contrast, image, complexity, and value barriers do not significantly influence intention, suggesting that resistance in this context is driven more by perceived uncertainty and habitual attachment than by usability or reputational concerns.
Furthermore, the strong and positive relationship between behavioral intention and actual Coretax usage confirms that intention remains a central mechanism in translating attitudes into real adoption behavior, even within a regulated public-sector environment.
Theoretically, this study refines Innovation Resistance Theory by demonstrating that resistance dynamics operate differently in mandatory institutional digital systems. In such coercive settings, value-related considerations become less decisive, while perceived risk and alignment with established routines play a more dominant role. These findings highlight the need to contextualize resistance-based theories when applied to legally mandated digital platforms.
Overall, this research contributes to the digital government and taxation literature by emphasizing that regulatory enforcement alone does not eliminate psychological resistance. Effective digital tax reform therefore requires not only technological readiness but also targeted policy interventions aimed at reducing perceived risks and facilitating organizational adaptation. Addressing these dimensions can enhance user acceptance and support the sustainable implementation of large-scale digital taxation systems.

Author Contributions

The following statements were used: Conceptualization, A.M.S, and K.M; methodology, A.M.S, K.M.; software, A.M.S and K.M; validation, A.M.S, K.M.; formal analysis, A. M. S., K.M.; investigation, A.M.S. and O.A; resources, A.M.S, K.M.; data curation, A.M.S and K.M; writing—original draft preparation, K.M.; writing—review and editing, A.M.S.; visualization - A.M.S; supervision - A. M. S.; project administration - A.M.S,; funding acquisition, N/A. All authors have read and agreed to the published version of the manuscript."

Data Availability Statement

The data supporting this study's findings are not publicly available due to privacy and confidentiality concerns. Access to the data may be granted upon reasonable request and after appropriate approval, ensuring compliance with data protection regulations. Please contact the corresponding author for further information regarding data access. The data can be downloaded through https://bit.ly/4b9v0qX

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