

Implementation of the Core Tax Administration System (CTAS) as a Digital Tax Solution: An Empirical Study on Taxpayer Satisfaction and Government Readiness

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ABSTRACT

Background: The digital transformation of tax administration has become a strategic priority for governments seeking to improve transparency, efficiency, and compliance. In Indonesia, the Core Tax Administration System (CTAS) represents a major step toward modernizing tax services within the Directorate General of Taxes, where user acceptance and institutional readiness are considered key determinants of success.

Objectives: This study examines the influence of taxpayer satisfaction and government readiness on CTAS implementation effectiveness in Indonesia's digital tax administration transformation.

Methodology: A quantitative approach was employed using structured questionnaires distributed to taxpayers with experience using digital tax services, with multiple linear regression used to evaluate the effect of each independent variable.

Findings: Taxpayer satisfaction has a positive and significant effect on CTAS implementation ($t = 7.291$, $p = 0.000$), reflected in perceptions of service accessibility, speed, data security, and information clarity. Government readiness, however, shows no statistically significant effect ($t = 0.787$, $p = 0.433$).

Conclusions: Taxpayer satisfaction is a significant determinant of CTAS implementation success, whereas government readiness alone does not directly translate into taxpayer adoption without a positive user experience. These findings support the Technology Acceptance Model (TAM), underlining the need for simplified procedures, enhanced system stability, and responsive digital services to strengthen CTAS acceptance in Indonesia.

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1. INTRODUCTION

Drawing on the Technology Acceptance Model (TAM) (Davis, 1989) and prior e-government literature, taxpayer compliance is posited to increase when users perceive digital tax systems as useful and easy to use which is conditions that are closely associated with overall taxpayer satisfaction (Azmi & Kamarulzaman, 2010; Venkatesh et al., 2003). In this era of tax system modernisation, ensuring that taxpayers are satisfied with the digital tax experience is therefore considered a critical pathway toward strengthening voluntary compliance and, consequently, increasing state revenue. Since its inception, Coretax has encountered obstacles, such as difficulties in creating accounts, while the Core Tax website is often error-prone and slow, causing many complaints from users (Abdillah et al., 2025). Tax reporting and payment in Indonesia has indeed

been a major challenge, especially for companies that have to operate four different platforms (Hidayat & Inayati, 2025). The process involves Web Efaktur, the Efaktur Application, Web DJP, and Web e-Nofa, all of which had their own functions before the existence of Coretax. Seeing this complexity, the DGT decided to simplify the process by launching Coretax. This system is expected to integrate all services into a single, more efficient platform.

The implementation of CTAS aims to improve the service experience by integrated online access, reduced bureaucracy, and minimised human error (Arianty, 2024). However, early digital tax system rollouts are frequently accompanied by technical challenges such as system instability and registration difficulties (Putrevu & Mertzanis, 2024), and user feedback in Indonesia has similarly indicated reliability and accessibility issues during initial deployment (Purnamasari et al., 2025). Empirical measurement of how current CTAS performance impacts taxpayer satisfaction (in terms of accessibility, service speed, and perceived fairness), hence remains both timely and necessary.

Effective CTAS implementation also requires adequate technological infrastructure, human resources, and regulatory support. Government readiness extends beyond system changes to encompass capacity building, data protection, public communication, and smooth transition management from legacy systems (Mpofu, 2024; Hutabarat et al., 2025). Through an integrated digital platform, taxpayers can register, report, and pay taxes more efficiently, reducing administrative errors and improving satisfaction with government services (Hesami et al., 2024; Zairin et al., 2025).

The digitisation of tax administration is a growing global trend, with developed countries demonstrating that well-implemented digital tax systems can increase compliance and optimise revenue (Iqbal et al., 2025). Indonesia is pursuing a similar path through CTAS, albeit facing distinct challenges related to bureaucratic complexity and varying levels of digital literacy among its citizens.

In addition to challenges from the public, the government's internal readiness is also key to the successful implementation of CTAS. Tax officials are required to adapt to the new digital system and understand the accompanying changes in work processes. Previous studies have shown that resistance to technological change and lack of training are major obstacles to digital transformation in the public sector (Syed et al., 2023). Within this framework, government readiness in the context of this study encompasses not only human resource capacity but also the ability to maintain data security and taxpayer privacy — both of which are operational dimensions of institutional preparedness that directly affect the reliability and trustworthiness of the system as perceived by users (Ahmad & Jack, 2025). Failure to meet adequate cybersecurity standards may therefore undermine government readiness as a whole, with downstream consequences for taxpayer confidence and CTAS adoption.

In addition to taxpayer satisfaction, government readiness is also a key variable that determines the sustainability of the CTAS system. This readiness includes technological readiness, human resource capabilities, operational procedures, and clear regulatory support. The government must ensure that all supporting elements of the system work synergistically so that the benefits of CTAS can be optimally felt by the community.

This study seeks to provide a more focused and integrated analysis of CTAS implementation by explicitly examining the relationship between taxpayer satisfaction and government readiness within a single framework. While prior studies have explored digital tax systems, limited attention has been given to how system usability issues, transitional challenges, and institutional preparedness interact to influence compliance outcomes in the Indonesian context. Therefore, this study situates itself to redress this lacuna by furnishing empirical substantiation of how the efficacy of CTAS is configured not solely by its technological constituents but also by the government's aptitude in stewardship of digital metamorphosis. In so doing, this inquiry augments the extant corpus on public sector digitalisation and proffers actionable elucidations for the amelioration of fiscal administration statecraft in nascent economies.

2. LITERATURE REVIEW

2.1. Core Tax Administration System (CTAS)

The Core Tax Administration System (CTAS) constitutes a foundational fiscal administration apparatus engineered to consolidate all pivotal business processes in tax governance, encompassing registration, reportage, remittance, collection, and oversight. Pursuant to the Organisation for

Economic Co-operation and Development, CTAS functions as a cardinal business infrastructure that mechanises and amalgamates end-to-end tax administration processes, thereby facilitating efficacious revenue collection and compliance surveillance (Nkosi & Jahed, 2025). The Directorate General of Taxes refers to CTAS as a system that will replace legacy systems with a single integrated system that is more sophisticated, efficient, and flexible to changes in tax policy. The functions of CTAS include:

1. Data integration, where all tax information is stored in a single system that connects across organisational units.
2. Business process automation, where tax administration activities are carried out automatically through a digital system.
3. Compliance monitoring, which enables the DGT to monitor taxpayer behaviour in real time.
4. Electronic services, providing digital-based services to taxpayers quickly and transparently.
5. According to the OECD, the digitisation of tax administration through core systems such as CTAS also helps the government increase state revenue and strengthen oversight.

This is supported by empirical findings from Iqbal et al. (2025) which show that the implementation of integrated digital tax systems contributes to improved efficiency, transparency, and tax compliance in several countries. In addition, research by Ioannou et al. (2021) highlights that integrated digital government systems can enhance administrative performance, although their effectiveness depends on system usability and user adaptation.

Recent empirical evidence from Southeast Asia further contextualizes the relevance of CTAS within the region's broader digital governance trajectory. Studies from Vietnam, Thailand, and the Philippines indicate that core tax system modernization has yielded measurable improvements in tax compliance rates and administrative efficiency, particularly when implementation is accompanied by robust digital infrastructure and stakeholder engagement strategies (Thuy et al., 2023; Dias, 2020). In the ASEAN context, Indonesia's CTAS rollout reflects a regional pattern wherein developing economies are increasingly investing in integrated fiscal platforms to bridge compliance gaps and reduce informality in tax reporting. These regional experiences underscore that the success of such systems is contingent not only on technical design, but also on institutional capacity and taxpayer readiness — factors particularly salient in Indonesia's diverse socioeconomic scene.

2.2. Digital Taxpayer Satisfaction

Digital taxpayer satisfaction is a form of evaluation or emotional response from taxpayers regarding their experience in using information technology-based tax administration systems.

According to Burda and Haholongan (2021), customer satisfaction constitutes an affective disposition of gratification or disillusionment that materialises upon juxtaposing the actual performance of a procured product or service against one's antecedent expectations. Haholongan et al. (2023) further posit that within the purview of digital taxation, taxpayer satisfaction manifests through individuals' appraisals of the accessibility, expedition, inviolability, and dependability of fiscal administration infrastructures such as the Core Tax Administration System (CTAS).

According to Davis (1989) in the Technology Acceptance Model (TAM), the level of satisfaction and acceptance of a technology system is influenced by two main variables, namely perceived usefulness and perceived ease of use. The greater the perceived benefits for taxpayers and the easier the system is to operate, the higher their level of satisfaction with the system.

When taxpayers are gratified by the CTAS system's navigational simplicity, operational celerity, and fortified security, they are predisposed to cultivate affirmative dispositions and a pronounced proclivity to perpetuate its utilisation. Conversely, should the system be beset by recurrent perturbations, constrained accessibility, or an insufficiency of perspicuous information, satisfaction will attenuate and antipathy toward the nascent infrastructure will inevitably burgeon. Consequently, the judicious stewardship of digital taxpayer satisfaction constitutes an indispensable undertaking in safeguarding the longitudinal viability of fiscal digitalisation transformation (Mukhrum et al., 2026). Corroborating empirical substantiation furnished by Asmoro et al. (2025) further note that users' appraisals of system navigability and service quality is influential upon the assimilation of CTAS, most conspicuously during the incipient phases of its deployment.

In the Southeast Asian context, empirical studies on digital tax satisfaction have highlighted region-specific challenges that are directly relevant to Indonesia's CTAS implementation. Research conducted in Malaysia has demonstrated that taxpayer satisfaction with e-filing and digital payment platforms is significantly shaped by perceived system reliability, language accessibility, and the availability of responsive customer support (Nagaratnam, 2021). These findings are particularly pertinent in Indonesia, where a large and geographically dispersed taxpayer base with varying levels of digital literacy presents distinct usability challenges. Incorporating these regional insights into the design and evaluation of CTAS user experience strategies would therefore strengthen both the theoretical grounding and practical applicability of satisfaction-driven implementation models.

Therefore, managing digital taxpayer satisfaction is an important step in maintaining the sustainability of digital taxation transformation. Empirical studies in e-government and digital tax administration contexts have consistently demonstrated that user satisfaction positively influences system adoption and implementation outcomes (Aleisa, 2024; Chan et al., 2021). When taxpayers perceive a digital tax system as useful, accessible, and reliable — the core dimensions of satisfaction as theorised in TAM (Abu-Silake et al., 2024), their willingness to engage with and comply through the system increases, thereby contributing to more effective implementation. Based on this theoretical and empirical foundation, the following hypothesis is proposed:

H1: Taxpayer satisfaction has a positive and significant effect on the effectiveness of CTAS implementation.

2.3. Government Readiness

Government readiness refers to the extent to which a public institution, in this case the Directorate General of Taxes (DGT), has the capacity, resources, and support systems necessary to effectively implement new policies or innovations. According to Weiner (2020) organisational readiness for change can be defined as the level of commitment and ability of organisational members to implement planned changes. In the context of implementation of the Core Tax Administration System (CTAS), government readiness encompasses not only the availability of adequate technological infrastructure, but also the preparedness of human resources, institutional coordination, and the existence of clear and supportive regulatory frameworks. This readiness is reflected in the ability of tax officials to adapt to new digital workflows, the effectiveness of training programs, and the government's capacity to ensure data security and system reliability. Furthermore, strong organisational commitment and effective change management are essential to minimise resistance and ensure a smooth transition from conventional systems to integrated digital platforms. Therefore, government readiness plays a critical role in determining the success and sustainability of CTAS implementation, as well as in fostering taxpayer trust and satisfaction.

Theoretically, government readiness has direct implications for the effectiveness of the implementation of a digital tax administration system. Governments that are technologically, human resource, and regulatory ready will be better able to create a stable, efficient, and sustainable digital tax system (Gorshkova et al., 2022). However, empirical results from several studies show that government readiness does not always have a significant impact on the implementation of the system in the field. For instance, Asmoro et al. (2025) found that despite government preparation, challenges in human resources and technical adaptation still hindered implementation.

Within the Southeast Asian context, government readiness has emerged as a recurring theme in digital public administration research, with findings that closely parallel the Indonesian experience. Studies from Thailand suggest that while central government institutions may demonstrate high levels of technological preparedness, implementation effectiveness at the operational level is frequently constrained by uneven human resource capacity and inconsistent inter-agency coordination (Terdpaopong & Kraiwanit, 2021). In Malaysia, the transition to integrated tax platforms similarly revealed that regulatory frameworks, though formally in place, required iterative refinement to accommodate evolving digital service demands (Rashid et al., 2024). These regional comparisons reinforce the notion that government readiness must be understood as a dynamic, multi-dimensional construct rather than a static precondition, and suggest that Indonesia's DGT would benefit from benchmarking CTAS readiness indicators against comparable Southeast Asian digital tax reform initiatives.

Similarly, studies on digital public systems, such as Ioannou et al., suggest that institutional readiness does not always translate directly into effective system adoption without strong user engagement. This may be due to other factors such as user resistance, low digital literacy among taxpayers, and dependence on external technical support.

This may be due to other factors such as user resistance, low digital literacy among taxpayers, and dependence on external technical support. Nevertheless, from an institutional perspective, government readiness, encompassing technological infrastructure, human resource capacity, and regulatory preparedness are remains theoretically linked to implementation effectiveness, as organisations with higher readiness are better positioned to deliver stable and responsive digital services (Aldhi et al., 2025). Several prior studies on public sector digital transformation have similarly included government or organisational readiness as a hypothesised determinant of implementation success, even where empirical results have proven mixed (Dias, 2020; Thuy et al., 2023). Based on this foundation, the following hypothesis is proposed:

H2: Government readiness has a positive and significant effect on the effectiveness of CTAS implementation.

3. METHOD

This study uses a quantitative approach with a survey method to analyse the effect of taxpayer satisfaction and government readiness on the implementation of the Core Tax Administration System (CTAS) as a digital tax solution. The research design is explanatory, as it aims to explain the causal relationship between variables based on empirical data obtained from respondents. Research data was collected by distributing questionnaires to taxpayers who had used digital taxation services and tax officials who understood the implementation of technology-based taxation administration systems.

The population of this inquiry encompassed taxpayers availing themselves of digital taxation infrastructures alongside fiscal officials entrusted with the administration of such services. The sampling technique employed was purposive sampling, premised upon the stipulation that respondents possessed demonstrable familiarity with digital taxation platforms or substantive comprehension of CTAS implementation. An aggregate of 100 tenable responses were procured and enlisted in the analytical process. This sample size was determined based on the minimum threshold recommended for multiple linear regression analysis, wherein Hair et al. (2010) suggest a minimum of 10 observations per predictor variable; a criterion satisfied by the present sample given two independent variables. Furthermore, 100 respondents is considered adequate for detecting medium-to-large effect sizes at conventional significance levels in regression-based studies (Field, 2024). However, it is acknowledged that this sample may not be fully representative of Indonesia's broader taxpayer population, given the use of purposive sampling and online distribution channels, which may have introduced self-selection bias toward more digitally literate respondents. Findings should therefore be interpreted within this contextual boundary, and future studies are encouraged to employ larger, more geographically and demographically diverse samples to enhance generalizability.

Data procurement was effectuated through the dissemination of questionnaires via an online survey apparatus, which afforded the researcher an efficacious modality for reaching prospective respondents. The questionnaire was promulgated across sundry communication conduits, encompassing social media and professional networks, to ascertain that respondents conformed to the antecedently delineated criteria. This methodological disposition was elected to expedite data acquisition whilst preserving the pertinence of the sample to the overarching research imperatives.

The research variables consisted of taxpayer satisfaction (X_1), government readiness (X_2), and CTAS implementation (Y). Taxpayer satisfaction was measured through perceptions of the ease of use of the system, speed of service, clarity of information, system reliability, and overall satisfaction.

Government readiness is measured through aspects of technological infrastructure, system stability, human resource competence, officer responsiveness, and clarity of regulations supporting tax digitalisation. Meanwhile, CTAS implementation is measured based on respondents' perceptions of administrative convenience, service efficiency, data transparency and accuracy, system sustainability, and its contribution to tax modernisation.

The research instrument comprised a closed questionnaire underpinned by a five-point Likert gradation, spanning from strong disagreement (1) to strong agreement (5). Instrument quality appraisal was effectuated through a validity examination employing corrected item-total correlation and a reliability assessment utilising Cronbach's Alpha, with the stipulated threshold criterion of an alpha coefficient exceeding 0.70. All data processing was executed via SPSS software. Analytical procedures commenced with classical assumption diagnostics, encompassing normality, multicollinearity, and heteroscedasticity examinations, to ascertain that the data conformed to the prerequisite conditions for regression analysis. Hypothesis corroboration was subsequently undertaken through multiple linear regression analysis, operationalised via the equation (1):

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \epsilon \tag{1}$$

In this model, Y represents CTAS implementation, while X_1 captures taxpayer satisfaction and X_2 reflects government readiness. The evaluative procedure was administered through a t-test to ascertain the partial bearing of each antecedent variable upon the criterion variable, complemented by an F-test to adjudicate the simultaneous bearing of all independent variables in aggregate. Further, the coefficient of determination (R^2) was enlisted to quantify the proportional contribution of the independent variables in elucidating the variance inherent in CTAS implementation.

The measurement indicators for each construct were not developed de novo but were adapted from validated instruments in prior literature. Taxpayer satisfaction indicators were adapted from the TAM-based satisfaction scales developed by Davis (1989) and applied in digital tax service contexts by Haholongan et al. (2023). Government readiness indicators were drawn from the organisational readiness framework proposed by Weiner (2020) and the e-government readiness dimensions outlined by Bélanger and Carter (2008). CTAS implementation indicators were adapted from implementation effectiveness measures established in prior e-government studies (Yera et al., 2020; Syed et al., 2023). All indicators were contextually adjusted to reflect the specific characteristics of the CTAS environment and reviewed for content validity prior to administration.

Through this methodological disposition, the inquiry is anticipated to furnish empirical substantiation pertaining to the contributory salience of taxpayer satisfaction and governmental preparedness in undergirding the triumphant operationalisation of the Core Tax Administration System as an integral constituent of the digital metamorphosis of fiscal administration in Indonesia.

4. RESULTS AND DISCUSSION

4.1. Research Results

4.1.1. Normality Test

The normality test is purposed to ascertain whether the research data encompassing both the antecedent and criterion variables within the regression model conform to a normal distributional pattern or deviate therefrom. The outcomes of the normality diagnostic administered in this inquiry are rendered discernible through the ensuing figure.

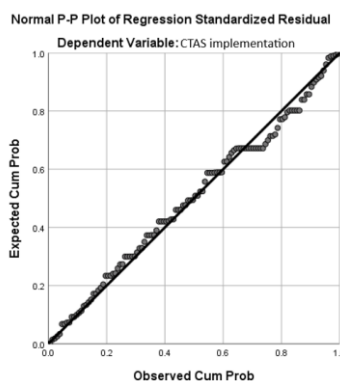


Figure 1. Normality Test Using the P-P Plot Method
 Source: SPSS 26.00 Data Processing Results

From Figure 1, it can be seen that the points are scattered around the line and follow the diagonal line, so the regression model has passed the normality test because it is normally distributed.

4.1.2. Heteroscedasticity Test

The heteroscedasticity examination is purposed to ascertain whether variance impropriety subsists among observations within a multiple regression model (Ghozali, 2016). Where the variance across observations remains uniform and invariant, the condition is denominated homoscedasticity. Conversely, where the variance exhibits discernible fluctuation, the condition is designated heteroscedasticity. The heteroscedasticity diagnostic is effectuated through the scrutiny of discernible configurations within the scatterplot. Should a conspicuous configuration manifest, heteroscedasticity is adjudged to have materialised; conversely, where no determinate configuration is discernible and the data points are dispersed indiscriminately above and beneath the zero threshold on the Y-axis, heteroscedasticity is deemed to be absent. The outcomes of the graphical heteroscedasticity examination of the data are rendered discernible through Figure 2.

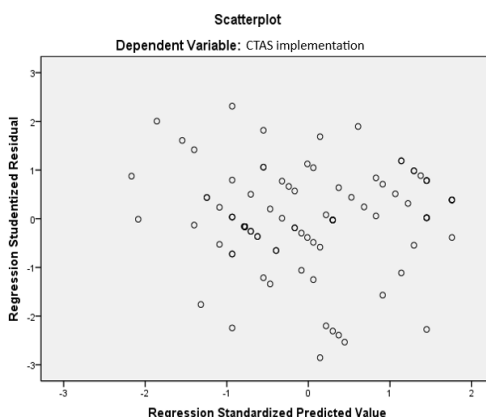


Figure 2. Heteroscedasticity Test Results
Source: SPSS 26.00 Data Processing Results

4.1.3. Multiple Linear Regression Analysis

Results of multiple linear regression testing of Taxpayer Satisfaction (X1) and Government Readiness (X2) variables for CTAS Implementation (Y) is displayed in Table 1.

Table 1. Multiple Linear Regression Analysis Result

| Model | | Unstandardized Coefficients | | Standardized Coefficients |
|-------|-----------------------|-----------------------------|------------|---------------------------|
| | | B | Std. Error | Beta |
| 1 | (Constant) | 2,517 | 2,270 | |
| | Taxpayer Satisfaction | 0,823 | 0,113 | 0,776 |
| | Government Readiness | 0,090 | 0,114 | 0,084 |

Source: SPSS 26.00 Data Processing Results

The values of the multiple linear regression equation are as follows:

$$Y = a + b1X1 + b2X2 + e$$

$$Y = 2.517 + 0.823 X1 + 0.090X2 + e \tag{2}$$

From this equation, we can see that:

- a. The constant value is 2.517. This means that if the variables Taxpayer Satisfaction (X1) and Government Readiness (X2) for CTAS Implementation (Y) are 0, then the information value is 2.517.

- b. The regression coefficient of the Taxpayer Satisfaction variable (b1) is 0.823. This means that if the Taxpayer Satisfaction variable (X1) increases by 1 unit, CTAS Implementation (Y) will increase by 0.823, assuming Government Readiness (X2) remains constant.
- c. The regression coefficient of the Government Readiness variable (b2) is 0.090. This means that if the Government Readiness variable (X2) increases by 1 unit, CTAS Implementation (Y) will increase by 0.090, assuming Taxpayer Satisfaction (X1) remains constant.

4.1.4. Determination Coefficient Analysis

In this inquiry, the coefficient of determination is enlisted to ascertain the proportional magnitude of influence exerted by Taxpayer Satisfaction (X₁) and Government Readiness (X₂) upon the Implementation of CTAS (Y). This is delineated through the coefficient of determination (R²), the value of which oscillates between 0 (zero) and 1 (one), wherein proximity to unity connotes a more substantive explicatory capacity of the antecedent variables upon the criterion variable. The outcomes of the determination analysis are rendered discernible through the Model Summary output derived from the multiple linear regression analytical procedure.

Table 2. Determination Coefficient Analysis Result

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1 | .852 ^a | 0,726 | 0,721 | 2,15652 | 2,690 |

Based on the Table 2, the results of the simultaneous analysis of the coefficient of determination can be seen as follows:

- a. The R value is 0.852 and the Adjusted R Square value is 0.721. The closer the Adjusted R Square value is to 1 (one), the stronger the influence of the independent variables, namely Government Readiness and Taxpayer Satisfaction, on the dependent variable, namely CTAS Implementation.
- b. The Adjusted R Square value of 0.721 or 72% indicates that the percentage contribution of the independent variables, namely Government Readiness and Taxpayer Satisfaction, to the dependent variable, namely CTAS Implementation, is 72%, while 28% is influenced by other factors outside these five variables.
- c. The Durbin-Watson value is 2.690, which is slightly above the commonly accepted range of 1.5 to 2.5 for indicating no autocorrelation. This suggests a potential indication of negative autocorrelation in the regression residuals. However, given that the value is not substantially higher than the upper threshold, the issue is considered relatively minor and does not significantly affect the overall reliability of the regression model. Nevertheless, this result should be interpreted with caution, and future research may consider further diagnostic testing to ensure the robustness of the model.

4.1.5. Partial Hypothesis Testing (t-Test)

In this study, the t-test was used to determine whether the independent variables consisting of brochures and billboards partially influenced the dependent variable, namely the CTAS implementation variable (Y).

Table 3. Distribution of t variables

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|-----------------------|-----------------------------|------------|---------------------------|-------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2,517 | 2,270 | | 1,109 | 0,270 |
| | Taxpayer Satisfaction | 0,823 | 0,113 | 0,776 | 7,291 | 0,000 |
| | Government Readiness | 0,090 | 0,114 | 0,084 | 0,787 | 0,433 |

Source: SPSS 26.00 Data Processing Results

From the Table 3, the partial testing of Taxpayer Satisfaction shows that the t-value is 7.291. The t-value is positive, meaning that the effect is positive. This substantiates that Taxpayer Satisfaction engenders a consequential augmentation in CTAS Implementation, with a significance level of $0.000 < 0.05$. These outcomes corroborate that the antecedent variable, Taxpayer Satisfaction, exerts a statistically significant partial bearing upon the criterion variable, CTAS Implementation.

Partial adjudication of Government Readiness discloses a t-value of 0.787, accompanied by a significance level of $0.433 > 0.05$. This finding intimates that the antecedent variable, Government Readiness, does not yield a statistically consequential partial bearing upon the criterion variable, CTAS Implementation.

4.1.6. Simultaneous Hypothesis Testing (F-Test)

Given the plurality of antecedent variables encompassed within this inquiry, hypothesis corroboration is effectuated through the F-Test. The F-Test is enlisted to adjudicate whether the independent variables, namely Taxpayer Satisfaction (X_1) and Government Readiness (X_2), exert a statistically consequential bearing upon the criterion variable, namely CTAS Implementation, when assessed in simultaneous conjunction.

Table 4. Simultaneous Hypothesis Test Results (F-Test)

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------|
| 1 | Regression | 1439,849 | 2 | 719,924 | 154,803 | .000b |
| | Residual | 544,118 | 117 | 4,651 | | |
| | Total | 1983,967 | 119 | | | |

The results of the joint test in the Table 4 show an Fstat value of 154.803 with a sig value of 0.000. This indicates that the independent variables used in this study significantly influence the dependent variable. Since the sig value of Fsig is $0.000 < 0.05$, H_0 is rejected, meaning that all independent variables of Taxpayer Satisfaction and Government Readiness towards the Implementation of CTAS (Y) are significant at a 95% confidence level.

4.2. Discussion

4.2.1. Digital Taxpayer Satisfaction with the Core Tax Administration System

Partial adjudication discloses that taxpayer satisfaction exerts a propitious and statistically consequential bearing upon the operationalisation of the Core Tax Administration System (CTAS). This is corroborated by a t-value of 7.291 accompanied by a significance level of $0.000 < 0.05$, intimating that the more pronounced the degree of taxpayer gratification, the more efficacious the implementation of CTAS. Such gratification is manifested through respondents' appraisals of the system's navigational accessibility at any given juncture, the perspicuity of its interface and menu configuration, and the celerity of its service delivery processes. These indicators show that the aspects of system ease and efficiency are the main factors driving the acceptance and use of CTAS.

The questionnaire results show that taxpayers feel that data processing or request processing does not take long, the system rarely experiences disruptions or errors, and the available features function according to their needs. This indicates that the quality of the CTAS system has met user expectations in terms of reliability and performance. In practical terms, a stable and responsive system will reduce technical barriers, improve user comfort, and reinforce the perception that CTAS truly helps in carrying out digital tax obligations.

In terms of security and information quality, respondents stated that the system has adequate security features, that they feel safe when uploading or sending tax documents, and that they obtain clear information that meets their reporting needs. These aspects of data security and clarity of information are very important in the context of tax administration, which is sensitive and demands high accuracy. When taxpayers feel that their data is protected and the information provided is easy to understand, their level of trust in the system increases, which ultimately strengthens satisfaction and encourages the continued use of CTAS.

These outcomes are corroborated by the Technology Acceptance Model (TAM) propounded by Davis, which postulates that the assimilation and utilisation of a system is contingent upon perceived instrumentality and perceived navigational tractability. When taxpayers discern that CTAS ameliorates reportage obligations, augments service expedition, and attenuates administrative improprieties, their magnitude of gratification undergoes a consequential elevation. This gratification fosters an affirmative disposition toward the system, which ultimately fortifies the longitudinal and sustainable operationalisation of CTAS within the purview of digital fiscal administration (Kristiana et al., 2025).

These findings are in line with the research by Widianto (2023), which states that user satisfaction with government digital services plays an important role in the successful implementation of technology-based administrative systems. Thus, taxpayer satisfaction is a key factor in ensuring that the CTAS system is accepted and used optimally.

These results also support the research by Saha et al. (2012), which found that user satisfaction with digital taxation information systems is influenced by ease of use, system reliability, and service quality. In the context of CTAS, satisfied taxpayers will tend to be more compliant, more active in using electronic services, and have greater trust in the tax administration system (Saptono et al., 2023). This satisfaction reflects the successful integration of technology with user needs, thereby promoting the overall effectiveness of CTAS implementation.

Furthermore, research by Tjondro et al. (2019) shows that the level of taxpayer satisfaction with the e-tax system has a significant effect on the intention to continue using the system and on the perception of the effectiveness of tax administration. This finding reinforces the research results that satisfaction is not only an indicator of the success of digital services but also a determinant of the sustainability of system implementation. In the implementation of CTAS, taxpayer satisfaction can increase system acceptance, reduce resistance to change, and accelerate adaptation to integrated tax administration processes.

The implications of these research results emphasise that tax authorities need to prioritise improving the specific features and conditions of CTAS that are known to drive taxpayer satisfaction, namely the simplification of reporting and payment procedures, the enhancement of system stability and uptime, and the provision of responsive and accessible digital support services. When these system-level dimensions are strengthened, taxpayer satisfaction follows as an outcome, which in turn contributes to more effective CTAS implementation. This is in line with the recommendations of Ioannou et al. (2021), who state that the success of digital transformation in the public sector is largely determined by the quality of user experience embedded in the system design itself. Thus, the strategic priority for the DGT should not be satisfaction as an end target, but rather the continuous improvement of the system features and service delivery mechanisms that generate it, ensuring the effective and sustainable implementation of CTAS and supporting the broader modernisation of tax administration in Indonesia.

4.2.2. Government Readiness for the Core Tax Administration System (CTAS)

Governmental preparedness constitutes a consequential determinant in the operationalisation of a digitally-predicated fiscal administration infrastructure such as the Core Tax Administration System (CTAS). Conceptually, this preparedness subsumes regulatory proclivity, technological substructure, human capital endowment, and institutional buttressing requisite for the metamorphosis of the prevailing taxation apparatus. The government, as the authority, has a strategic role in ensuring that policies, procedures, and supporting tools are in place so that the implementation of CTAS can run effectively and sustainably (Newstam, 2025).

However, partial testing results show that government readiness does not have a significant effect on CTAS implementation. This can be seen from the t-value of 0.787 with a significance level of 0.433, which is greater than 0.05. Thus, the hypothesis that government readiness partially affects CTAS implementation is not statistically proven. This means that even though the government is considered to have a certain level of readiness, this factor is not yet able to directly explain the variations in CTAS implementation.

These findings indicate that the success of CTAS implementation is not solely determined by internal government aspects. It is possible that other factors, such as taxpayer readiness, technology system quality, ease of use, trust in the system, and technical support in the field, play a more

dominant role. In addition, the structural and policy readiness of the government may not yet be fully felt by system users, so that its impact on implementation is not yet significantly apparent.

Several questionnaire items related to operational support—such as ‘Tax officials are responsive and able to provide solutions to problems’, ‘The government is quick to deal with technical obstacles experienced by taxpayers’, ‘Government technical assistance services are available and easily accessible’, ‘The government regularly provides information on changes to the taxation system’, and ‘Training provided by the government helps users understand how to use the digital taxation system’—indicate that government support is being felt, but is not yet strong enough to encourage wider and more consistent adoption or use of CTAS. In other words, the existence of assistance services, socialisation, and training does not guarantee that the system is being optimally utilised by users. These findings reinforce the statistical results that government readiness, although important normatively, has not been a major determining factor in the practical implementation of CTAS.

Thus, the integration of questionnaire results into the analysis shows that the insignificant effect of Government Readiness may be due to the dominance of other factors that are more closely related to user experience, such as taxpayer readiness, ease of use of the system, perceived benefits, and comfort and trust in technology. This is also consistent with previous research findings which state that the main obstacles to CTAS implementation often lie in user adaptation, uneven training, and technical constraints at the operational level, even though the government is relatively ready in terms of policy and infrastructure. Therefore, to improve the effectiveness of CTAS implementation, the government needs to shift its focus from merely ensuring structural readiness to strengthening implementation aspects oriented towards user experience, such as improving the quality of assistance, simplifying the system interface, and conducting more intensive and continuous socialisation.

The results of this study are in line with several previous studies. Research by Asmoro et al. (2025) on the perceptions of tax consultants and tax officials regarding the implementation of CTAS in Surakarta found that although the government had prepared the system, there were still significant obstacles in terms of human resources, technical readiness, and adaptation to the new system. Similarly, a study by Michael (2026) and Siagian (2025) on the transition from e-Filing to Coretax showed that the main obstacles lie in the data migration process, limited user training, and resistance to system changes, which have prevented the optimal implementation of CTAS even though the government is ready in terms of policy. These findings confirm that the government's structural readiness does not automatically correlate with the success of implementation at the user level.

Thus, the statistically inconsequential bearing of Government Readiness upon CTAS Implementation discerned within this inquiry may be construed as an intimation that ancillary determinants assume a more preponderant salience, encompassing taxpayer preparedness, the navigational tractability of the system, the calibre of technological service provisioning, and the intensity of dissemination and facilitative accompaniment. In consonance with the governmental digital transformation readiness model propounded by Wahyudin et al. (2024), the government needs to strengthen non-technical dimensions such as developing the competence of civil servants, changing work culture, and change management so that policy and infrastructure readiness can truly have an impact on the successful implementation of CTAS. Therefore, improving government readiness must be done holistically so that CTAS implementation can run more effectively and sustainably.

From a policy standpoint, these findings carry direct implications for the Directorate General of Taxes (DGT) in refining its CTAS implementation strategy. Rather than concentrating resources primarily on structural and regulatory preparedness, the DGT should reorient its institutional priorities toward user-centric service delivery, specifically by developing tiered digital literacy programs tailored to taxpayers with varying levels of technological familiarity, establishing more accessible and responsive helpdesk mechanisms, and conducting iterative usability evaluations to identify and resolve friction points within the CTAS interface. Furthermore, the DGT should consider institutionalizing a feedback loop mechanism that systematically captures taxpayer experience data post-implementation, enabling evidence-based improvements to both system design and support services. At the policy level, this shift implies that future iterations of Indonesia's digital tax transformation roadmap should formally incorporate user experience metrics and taxpayer

satisfaction indicators as primary performance benchmarks, not merely technical deployment milestones, thereby aligning implementation evaluation frameworks with the empirical determinants of CTAS adoption identified in this study (Ioannou et al., 2021; Wahyudin et al., 2024).

5. CONCLUSION

This study contributes to the development of the Technology Acceptance Model by providing empirical evidence from a public sector digital transformation context in a developing country. The findings indicate that user-centered factors, particularly taxpayer satisfaction, play a more dominant role than institutional readiness in influencing CTAS implementation. This extends TAM by showing that perceived usefulness and ease of use in government digital systems are closely linked to service quality dimensions such as system reliability, accessibility, and clarity of information. At the same time, the insignificant effect of government readiness suggests that structural preparedness alone is not sufficient unless it is effectively translated into user-perceived benefits. This implies that the success of digital tax systems depends not only on internal government capacity but also on how these efforts are experienced by users.

Based on these findings, several actionable recommendations are directed at policymakers, particularly the Directorate General of Taxes. First, system stability and uptime should be treated as a primary operational priority, as technical disruptions directly undermine taxpayer satisfaction and, consequently, CTAS adoption. Second, the DGT should develop targeted taxpayer communication strategies, including multilingual guidance, simplified user manuals, and proactive notifications regarding system updates, to improve clarity of information and reduce user uncertainty during the ongoing rollout. Third, investment in accessible and responsive digital support channels, such as live chat assistance and regional helpdesks, would help bridge the gap between institutional readiness and user-perceived service quality. Finally, the DGT should consider establishing a continuous feedback mechanism that captures real-time taxpayer experience data to inform iterative system improvements, ensuring that CTAS evolves in alignment with user needs rather than solely with administrative or regulatory objectives.

However, this study has several limitations that should be acknowledged. The use of a limited sample size and purposive sampling technique may restrict the generalizability of the findings, while the reliance on self-reported data may introduce response bias. In addition, this study focuses only on two independent variables, which may not fully capture the complexity of factors influencing CTAS implementation. Therefore, future research is recommended to include additional variables such as digital literacy, trust in government, and perceived risk, as well as to expand the sample coverage across different regions. The use of mixed-method approaches and longitudinal designs is also suggested to obtain deeper insights into user experiences and to examine changes in technology acceptance over time as the CTAS system continues to develop.

6. REFERENCES

- Abdillah, I., Hasanah, N., & Handarini, D. (2025). Analysis of Coretax use on the efficiency and effectiveness of tax reporting at PT Jawara Mitra Consulting. *International Journal of Current Economics & Business Ventures*, 5(2). <https://scholarsnetwork.org/journal/index.php/ijeb/article/view/402>
- Abu-Silake, S. A., Alshurafat, H., Alaqrabawi, M., & Shehadeh, M. (2024). Exploring the key factors influencing the actual usage of digital tax platforms. *Discover Sustainability*, 5(1), 88. <https://doi.org/10.1007/s43621-024-00241-2>
- Ahmad, N., & Jack, W. (2025). *Cybersecurity Integration in Modern Taxation Systems: A Framework for Strengthening Taxpayer Data Protection*. <https://doi.org/10.13140/RG.2.2.25086.65608>
- Aldhi, I. F., Suhariadi, F., Rahmawati, E., Supriharyanti, E., Hardaningtyas, D., Sugiarti, R., & Abbas, A. (2025). Bridging digital gaps in smart city governance: the mediating role of managerial digital readiness and the moderating role of digital leadership. *Smart Cities*, 8(4), 117. <https://doi.org/10.3390/smartcities8040117>
- Aleisa, N. (2024). Key factors influencing the e-government adoption: a systematic literature review. *Journal of Innovative Digital Transformation*, 1(1), 14–31. <https://doi.org/10.1108/jidt-09-2023-0016>
- Arianty, F. (2024). Implementation challenges and opportunities Coretax administration system on the efficiency of tax administration. *Jurnal Vokasi Indonesia*, 12(2), 98. <https://doi.org/10.7454/jvi.v12i2.1227>

- Asmoro, P. V. P., Okfitasari, A., Suhatmi, E. C., & Pravasanti, Y. A. (2025). Persepsi Konsultan Pajak dan Fiskus terhadap Implementasi Core Tax Administration System (CTAS) di Kota Surakarta. *JURNAL ILMIAH EDUNOMIKA*, 9(3). <https://doi.org/10.29040/jie.v9i3.17931>
- Azmi, A. A. C., & Kamarulzaman, Y. (2010). Adoption of tax e-filing: A conceptual paper. *African Journal of Business Management*, 4(5), 599. <https://doi.org/10.5897/AJBM.9000045>
- Bélanger, F., & Carter, L. (2008). Trust and risk in e-government adoption. *The Journal of Strategic Information Systems*, 17(2), 165–176. <https://doi.org/10.1016/j.jsis.2007.12.002>
- Burda, A., & Haholongan, R. (2021). The Influence Of Service quality On Customer Satisfaction Workshops. *International Journal Economic And Business Applied*, 2(3), 377–384.
- Chan, F. K. Y., Thong, J. Y. L., Brown, S. A., & Venkatesh, V. (2021). Service design and citizen satisfaction with e-government services: a multidimensional perspective. *Public Administration Review*, 81(5), 874–894. <https://doi.org/10.1111/puar.13308>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/https://doi.org/10.2307/249008>
- Dias, G. P. (2020). Determinants of e-government implementation at the local level: an empirical model. *Online Information Review*, 44(7), 1307–1326. <https://doi.org/10.1108/oir-04-2020-0148>
- Field, A. (2024). *Discovering statistics using IBM SPSS statistics*. Sage publications limited.
- Ghozali, I. (2016). Aplikasi Analisis multivariete dengan program IBM SPSS 23 (Edisi 8). *Cetakan Ke VIII. Semarang: Badan Penerbit Universitas Diponegoro*, 96.
- Gorshkova, N. V., Ksenda, V. M., & Grigorenko, I. V. (2022). The impact of digital technologies of tax administration on increasing the inclusiveness and sustainability of economic development. In *New technology for inclusive and sustainable growth: Perception, challenges and opportunities* (pp. 223–234). Springer. https://doi.org/10.1007/978-981-16-9804-0_19
- Haholongan, R., Zulkarnaini, Z., & Prasetyo, B. E. (2023). Pengaruh Motivasi, Kompensasi, Lingkungan Kerja dan Budaya Organisasi terhadap Kepuasan Kerja. *Jurnal Manajemen STEI*, 6(2), 38–45.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis 6th Edition*. Pearson Prentice Hall.
- Hesami, S., Jenkins, H., & Jenkins, G. P. (2024). Digital transformation of tax administration and compliance: A systematic literature review on E-Invoicing and prefilled returns. *Digital Government: Research and Practice*, 5(3), 1–20. <https://doi.org/10.1145/3643687>
- Hidayat, A. K. W., & Inayati, I. (2025). Implementation of the Core Tax System: Impacts and Challenges on Tax Revenue in Indonesia. *Journal Transnational Universal Studies*, 3(6), 1–8. <https://doi.org/10.58631/jtus.v3i6.168>
- Hutabarat, M., Indriani, A., Sinaga, P. B., & Haholongan, R. (2025). CSR sebagai Strategi Retensi Karyawan: Perspektif Manajemen dan Karyawan. *Innovative: Journal Of Social Science Research*, 5(2), 2592–2600. <https://doi.org/10.31004/innovative.v5i2.18547>
- Ioannou, K., Kitsios, F., & Kamariotou, M. (2021). Digital transformation strategy and organizational change in the public sector: Evaluating e-government is and user satisfaction. *European, Mediterranean, and Middle Eastern Conference on Information Systems*, 247–257. https://doi.org/10.1007/978-3-030-95947-0_17
- Iqbal, M. M., Ali, M., Hina, U., & Shaikh, T. A. (2025). The future of smart tax systems: Integrating artificial intelligence, blockchain, and autonomous compliance technologies for transparent and efficient tax administration. *Journal of Social Sciences and Economics*, 4(1), 99–108. <https://doi.org/10.61363/hhnkcz03>
- Kristiana, D. R., Kristianti, I. P., & Setyaningsih, P. R. A. (2025). The Role of Digital Transactions, Tax Policy, and CTAS in Shaping Taxpayer Compliance: A Case Study of Indonesian SMEs. *International Journal of Business and Society*, 26(3), 825–841. <https://doi.org/10.33736/ijbs.7925.2025>
- Michael, M. (2026). E-Commerce Tax: From e-Filing to Coretax (A Bibliometric Analysis). *Owner: Riset Dan Jurnal Akuntansi*, 10(1), 134–147. <https://doi.org/10.33395/owner.v10i1.2850>
- Mpofu, F. Y. (2024). Digital transformation by tax authorities. In *Digital transformation in South Africa: Perspectives from an emerging economy* (pp. 151–170). Springer. https://doi.org/10.1007/978-3-031-52403-5_11
- Mukhrum, M., Ayuandiani, W., Anwar, N., & Rustan, M. F. (2026). Digital Transformation of Taxation: Technological Infrastructure and the Impact of Coretax (One Step System) on Corporate Taxpayer Satisfaction at the KPP Pratama Majene. *JHSS (JOURNAL OF HUMANITIES AND SOCIAL STUDIES)*, 9(3). <https://doi.org/10.33751/jhss.v9i3.13314>
- Nagaratnam, A. (2021). *Determinants of User Satisfaction and Usage Intention of E-Filing System in Malaysia [University of Malaya (Malaysia)]*. https://knova.um.edu.my/student_works_2020s/641/
- Newstam, C. (2025). *EU's Free Trade Agreements in the Light of Sustainability-An analysis of sustainability clauses in free trade agreements and how they contribute to the UN's global goals and the EU's strategic*

- sustainability policy* [Lund University]. <https://lup.lub.lu.se/student-papers/search/publication/9195149>
- Nkosi, G. P., & Jahed, M. I. (2025). Transforming Tax Compliance Through Auto-assessment: A Comparative Case Study Analysis. *Administratio Publica*, 33(4), 126–147. <https://doi.org/10.61967/adminpub.2025.33.4.6>
- Purnamasari, E. D. A., Mboeik, P. M. R., Setiawan, A. L., Stefany, K., Manuputty, S. A. A., Indriani, N. A., Sahasika, A. E., & Kuncoro, B. S. (2025). *Digital Tax System: Peluang, Tantangan, dan Implementasi di Indonesia*. SIEGA Publisher.
- Putrevu, J., & Mertzanis, C. (2024). The adoption of digital payments in emerging economies: challenges and policy responses. *Digital Policy, Regulation and Governance*, 26(5), 476–500. <https://doi.org/10.1108/dprg-06-2023-0077>
- Rashid, S. F. A., Sanusi, S., & Abu Hassan, N. S. (2024). Digital transformation: Confronting governance, sustainability, and taxation challenges in an evolving digital landscape. In *Corporate Governance and Sustainability: Navigating Malaysia's Business Landscape* (pp. 125–144). Springer. https://doi.org/10.1007/978-981-97-7808-9_7
- Saha, P., Nath, A. K., & Salehi-Sangari, E. (2012). Evaluation of government e-tax websites: an information quality and system quality approach. *Transforming Government: People, Process and Policy*, 6(3), 300–321. <https://doi.org/10.1108/17506161211251281>
- Saptono, P. B., Hodžić, S., Khozen, I., Mahmud, G., Pratiwi, I., Purwanto, D., Aditama, M. A., Haq, N., & Khodijah, S. (2023). Quality of e-tax system and tax compliance intention: The mediating role of user satisfaction. *Informatics*, 10(1), 22. <https://doi.org/10.3390/informatics10010022>
- Siagian, P. (2025). The Influence of Tax Reporting and the Core Tax System on Taxpayer Compliance (Study at the Primary Tax Service Office in DKI Jakarta). *Ilmu Ekonomi Manajemen Dan Akuntansi*, 6(1), 221–232. <https://doi.org/10.37012/ileka.v6i1.2826>
- Syed, R., Bandara, W., & Eden, R. (2023). Public sector digital transformation barriers: A developing country experience. *Information Polity*, 28(1), 5–27. <https://doi.org/10.3233/ip-220017>
- Terdpaopong, K., & Kraiwant, T. (2021). The technology readiness of Thai governmental agency. *The Journal of Asian Finance, Economics and Business*, 8(12), 431–441. <https://koreascience.kr/article/JAKO202133452451043.page>;
- Thuy, N. T. T., Thanh, H. P. T., Ngoc, T. T. B., & Si, L. T. (2023). Determinants of employee digital transformation readiness and job performance: A case of SMEs in Vietnam. *Problems and Perspectives in Management*, 21(4), 226. [https://doi.org/10.21511/ppm.21\(4\).2023.18](https://doi.org/10.21511/ppm.21(4).2023.18)
- Tjondro, E., Kurniati Prayogo, E., & Amanda, Y. (2019). The influence of e-tax user satisfaction on perception of service tax climate and overall satisfaction. *Journal of Accounting Finance and Auditing Studies (JAFAS)*, 5(4). <https://doi.org/10.32602/jafas.2019.35>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 425–478. <https://doi.org/10.2307/30036540>
- Wahyudin, M., Devi, R. K., & Sensuse, D. I. (2024). Digital Transformation Readiness Model in Government. *Ranah Research: Journal of Multidisciplinary Research and Development*, 6(4), 689–709. <https://doi.org/10.38035/rrj.v6i4.868>
- Weiner, B. J. (2020). A theory of organizational readiness for change. In *Handbook on implementation science* (pp. 215–232). Edward Elgar Publishing. <https://doi.org/10.4337/9781788975995.00015>
- Widianto, N. (2023). Improving the effectiveness of public services through technology-based service innovations in Indonesia. *Jurnal Ilmiah Ilmu Administrasi Publik*, 13(1), 155. <https://doi.org/10.26858/jiap.v13i1.45171>
- Yera, A., Arbelaitz, O., Jauregui, O., & Muguerza, J. (2020). Characterization of e-Government adoption in Europe. *Plos One*, 15(4), e0231585. <https://doi.org/10.1371/journal.pone.0231585>
- Zairin, G. M., Hera Khairunnisa, A. N., & Anugrah, S. (2025). Administration System (CTAS). *Innovations in Information and Decision Sciences: Proceedings of the 12th International Conference on Frontiers in Intelligent Computing: Theory and Applications (FICTA 2024)*, 85. <https://doi.org/https://doi.org/10.1007/978-981-96-0147-9>