The Intention to Use Signal Application for Paying Motor Vehicle Taxes

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Abstrak

Perkembangan teknologi informasi di era digital telah mendorong pemerintah untuk menyediakan layanan publik berbasis daring, termasuk dalam hal pembayaran pajak kendaraan bermotor. Aplikasi SIGNAL hadir sebagai solusi digital untuk mempermudah masyarakat dalam melakukan pengesahan STNK dan pembayaran pajak kendaraan bermotor secara online. Meskipun demikian, tingkat penggunaan aplikasi ini masih belum optimal, khususnya di Provinsi Lampung, yang ditandai dengan rendahnya adopsi dibandingkan pelayanan konvensional di kantor Samsat. Penelitian ini bertujuan untuk mengidentifikasi faktor-faktor yang memengaruhi niat wajib pajak dalam menggunakan aplikasi SIGNAL, dengan menggunakan pendekatan Technology Acceptance Model (TAM) yang dikembangkan. Model ini mencakup variabel eksternal seperti subjective norms, persepsi keamanan, dan persepsi kepercayaan. Penelitian dilakukan dengan metode survei terhadap 120 responden yang dipilih melalui teknik purposive sampling. Analisis data dilakukan menggunakan pendekatan Partial Least Squares (PLS) dengan bantuan perangkat lunak SmartPLS. Hasil penelitian menunjukkan bahwa subjective norms, perceived security, perceived trust, perceived ease of use, dan perceived usefulness berpengaruh signifikan terhadap niat penggunaan aplikasi SIGNAL. Temuan ini memberikan kontribusi penting bagi peningkatan strategi adopsi layanan digital di sektor publik.

Kata Kunci: Technology Acceptance Model; SIGNAL; Niat Menggunakan; Persepsi; Norma Subjektif

Abstract

In this digital age, governments are increasingly embracing online payment of car taxes and other public services made possible by advances in information technology. A digital software called SIGNAL was created to make it easier to validate car registrations and tax payments online. The lower utilization rate compared to traditional services at Samsat offices indicates that its implementation is still unsatisfactory, especially in Lampung Province. The purpose of this research is to use an expanded Technology Acceptance Model (TAM) to determine what variables impact taxpayers' intent to utilize the SIGNAL application. Perceived safety, trust, and subjective standards are some of the extraneous factors included in the model. Data was collected from 120 participants chosen at random using a survey approach. Partial Least Squares (PLS) analysis using SmartPLS software was used to examine the data. Findings show that the desire to use the SIGNAL app is heavily impacted by subjective norms, perceived security, perceived trust, perceived simplicity of use, and perceived utility. The public sector may improve its plans for adopting digital services by using the insights provided by these studies.

Keywords: *Technology Acceptance Model; SIGNAL; Intention to Use; Perception; Subjective Norm*

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INTRODUCTION

The fast growth of information technology and the internet has changed how people use services in Industry 4.0. The rise of internet platforms highlights this transition. Indonesia is one of the world's most internet-connected nations. In 2024, the Indonesian Internet Service Providers Association (APJII) reported 221.56 million internet users, or 79.5% of the population. This amount has increased from 215.63 million in 2022–2023, indicating smartphone and PC internet availability. Technology has changed governmental services like automobile tax administration.

New public digital services include the SIGNAL (Samsat Digital Nasional) app, which simplifies car tax payments. SIGNAL lets customers validate yearly car registration, pay motor vehicle taxes (PKB), and subscribe to the required road traffic accident fund (SWDKLLJ) online. Users obtain e-Validation (POLRI), e-TBPKP (Provincial Revenue Agency), and e-KD after completion. National databases include police car registration records, the Ministry of Home Affairs population register, and provincial revenue office tax databases are used by the system. SIGNAL uses AI to combine these resources into a nationwide platform that people may access via mobile devices, assuring ease and regulatory supervision.

After being presented in 2021 and created in 2014, the SIGNAL app has not been fully used, especially in Lampung Province. Many car owners prefer visiting Samsat offices in person versus utilizing the app. This may be due to unfamiliarity with the app or a sense of SIGNAL's technical complexity. Such views are commonly connected with "Baby Boomers" who struggle to adjust to digital developments (Wilson, 2019). Lampung's Revenue Office (2024) reported that 34,576 people visited the Samsat office directly in 2024, while 17,087 utilized SIGNAL. These numbers show that SIGNAL adoption is low, highlighting the necessity to study behavioral and technical variables affecting user intentions.

Despite millions of downloads, SIGNAL user satisfaction is mixed. The app has 4.6 on Google Play (191,000 ratings) and 1.6 on Apple's App Store (5,600 reviews). The negative ratings indicate a disconnect between user expectations and experiences. Technical issues and poor user assistance cause many users to have trouble accessing services and making transactions. These concerns lower users' perceived norm—the social pressure to utilize the app. Al Kurdi et al. (2021) and Wu & Song (2021) define subjective norm as an individual's conviction that others believe they should do something based on societal pressures. Technical and social perception difficulties must be addressed to increase adoption and satisfaction.

User impression about SIGNAL application security is also important. In an era of personal data protection, 64% of smartphone users fear app-based identity theft. SIGNAL users may be wary of using apps without proper data protection. Balapour et al. (2020) stress that trust is built on perceived security—users' faith that their data would be safe during and after transmission. Harris et al. (2016) found that perceived security greatly impacts mobile app installation and usage. Thus, protecting user data is essential to build confidence and promote app use.

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The perceived ease of use—how easy a product or service is to learn and use—is also crucial (Wilson et al., 2021). Adoption rates rise when apps are easy to use. Balapour et al. (2020) add that although security builds user confidence, simplicity of use drives engagement and retention. Security and usability produce a favorable user experience that encourages adoption, use, and peer referrals.

Utility, simplicity, and security affect users' goals. According to Davis et al. (2024), perceived usefulness is a person's conviction that a technology improves performance or productivity. Natasia et al. (2021) found that people utilize apps that enhance their job or make tasks simpler because they appreciate them. A major advantage of SIGNAL is its capacity to reduce travel to the Samsat office, save time, and give convenience. Trust, the emotional underpinning of service provider dependency, is needed to provide perceived usefulness (An et al., 2023; Liébana-Cabanillas, 2018).

Users need trust to adopt new technologies. It comes from trusting the service provider to give safe and enjoyable experiences. An et al. (2023) and Liébana-Cabanillas et al. (2018) imply that trust boosts credibility, user confidence, and provider-user relationships. Users must pick trustworthy technologies, particularly ones that handle sensitive personal and financial data like SIGNAL. The Technology Acceptance Model (TAM) by Davis et al. (2024) is a powerful theoretical framework for assessing consumer technology uptake. This shows that perceived utility and convenience of use influence behavior. To correctly depict the complexity of digital public services like SIGNAL, TAM must contain subjective standards, trust, and confidence. These attributes might help explain user behavior in digital tax services, where privacy, social impact, and trustworthiness are as important as functionality.

Turker et al. (2022) observed that perceived usefulness and trust increased mobile payment usage, while perceived simplicity of use did not. Such technology may be intuitive, thus users may not require training. Their research found that subjective criteria did not affect TAM prediction, suggesting that cultural and environmental variables may diminish TAM prediction. Researchers must use more complete behavioral and contextual frameworks and models like UTAUT and DIT in digital adoption studies to address this theoretical gap.

In order to close that gap, this study will empirically examine the variables that determine the willingness to utilize SIGNAL for motor vehicle taxes. Unlike earlier studies on commercial mobile banking or electronic payment systems, this study focuses on public sector applications. This study examines if subjective norms, perceived security, benefit, and convenience of use affect user intention. Using variables like perceived trust improves the model's ability to capture psychological and behavioral factors that impact SIGNAL adoption.

This study aims to (1) examine the effects of subjective norms on perceived usefulness and ease of use; (2) assess the effects of perceived security on ease of use and trust; (3) investigate the relationship between trust and ease of use and their collective influence on perceived usefulness; and (4) determine the effects of ease of use, usefulness, and. A comprehensive framework understanding Indonesians' digital tax service adoption behavior is the goal of these aims. Technology Acceptance Model (TAM) literature. The results may inform digital public service research. The findings may help government organizations and developers improve

the SIGNAL application by addressing user issues about simplicity of use, security, and confidence, increasing adoption rates and tax collecting efficiency.

METHODOLOGY

Type of Research

Hypothesis testing is used in this explanatory investigation to determine causal linkages. According to Sugiyono (2019), explanatory research clarifies study variables' positions and relationships. This study examines how perceived ease of use and perceived usefulness influence SIGNAL users' intentions to use and satisfaction. Descriptive and quantitative methods are used in the investigation. Sugiyono (2019) defines descriptive analysis as describing facts without generalizations. Due to its factual, objective, quantifiable, logical, and systematic principles, the quantitative approach is scientific and based on positivist philosophy. Quantitative approaches test hypotheses utilizing research equipment and statistical analysis on particular populations or samples. Individual taxpayers who utilized SIGNAL are the study object.

Data Collection Techniques

This study uses participants as data sources. Interviews and surveys use respondents as data sources. This research uses primary and secondary data. Primary data are acquired directly from the source, in this instance respondents using Google Forms surveys (Sugiyono, 2019). Secondary data, gained indirectly from books, online sources, and literature, give insights into the Technology Acceptance Model (TAM) and behavioral intention to use the SIGNAL app (Sugiyono, 2019). Field researchers distribute standardized questionnaires to gather data. Sugiyono (2019) defines a questionnaire as a series of written questions or statements that collect data on the SIGNAL application's perceived ease of use, perceived usefulness, intention to use, and user satisfaction.

Population and Sample

This survey includes all Lampung Province taxpayers who have utilized SIGNAL. According to Sugiyono (2019), population is a generalization region of things or topics with significant features and attributes. Silaen (2018) defines a population as all persons or things with the researched attributes. Data is taken from a sample of the population (Sugiyono, 2019). Researchers may employ non-probability sampling for big, unknown populations. Purposive sampling was used in this research (Sugiyono, 2019). Hair et al. (2014) suggest multiplying 24 indicators by 10 to get 240 responses for unknown populations. Respondents must know the SIGNAL app and be above 18 to represent early adulthood (Nurkholis, 2017).

Operational Definitions of Research Variables

This study uses operational definitions to define and measure each research variable. Turker et al. (2022) define subjective norms as the extent to which a person thinks important people think they should or shouldn't do something. This variable is examined by three indicators: (1) if key people would promote using SIGNAL, (2) whether they see advantages from utilizing it, and (3) whether they think it's a good

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idea. These Likert scale indicators examine how social expectations and support affect behavioral intentions.

Turker et al. (2022) define perceived security as an individual's trust that a technology securely transfers sensitive data, such as consumer and financial transaction data. This variable's indications include (4) low danger of illegal third-party surveillance during payment, (5) low risk of misuse of user information like names or payment amounts, and (6) low risk of abuse of billing information such bank account data. According to the Technology Acceptance Model (TAM), perceived usefulness is the extent to which a person thinks a technology will improve their performance (Turker et al., 2022). This research assesses SIGNAL's time-saving, useful, efficient, quick, and effort-saving qualities using five metrics. All factors are evaluated using a Likert scale to represent user feedback.

How easy a system is perceived to be to use is called perceived ease of use. It is assessed by five indicators: the SIGNAL app's ease of use, registration, accessibility from anywhere, motor vehicle tax payment, and job simplification (Turker et al., 2022). Perceived trust is the emotional condition that makes someone dependent on satisfying behavior. It assesses trust in the SIGNAL auto tax payment system's safety, dependability, and authenticity. Finally, Turker et al. (2022) define intention to use as future SIGNAL system use. To use SIGNAL for tax payments, the user must be deliberate, consistent, ready, and intend to. Each component's Likert scale measures behavior and attitude.

Quantitative Analysis

This study uses quantitative path analysis to determine causal links between variables using assumptions and a conceptual framework. Ghozali (2011) notes that path analysis extends multiple regression by exploring direct and indirect variable effects within a theoretical framework. Partial Least Squares (PLS), a variance-oriented SEM approach, is used in this study. Partial Least Squares (PLS) is ideal for predictive modelling and complicated latent variable associations with many indicators (Abdillah & Hartono, 2015). This approach works with small sample numbers and across data scales and assumptions. This research estimates hierarchical causal links and evaluates measurement and structural models using PLS.

The PLS-based SEM method uses outer and inner models. The outer model emphasises measurement and shows latent construct-observed indicator relationships (Abdillah & Hartono, 2015). Theory of latent variable associations is shown in the inner model (structural model). Multiple tests are done on the outer model. AVE and outer loadings must be > 0.5 to demonstrate indicator reliability for convergent validity. A latent concept's discriminant validity is established when an indicator's cross-loading is stronger with its own construct than with others. Composite and Cronbach's Alpha are reliability tests. A construct is dependable if both values surpass 0.70 (Abdillah & Hartono, 2015).

The inner model evaluation uses two fundamental evaluations. To assess the model's explanatory power, the Coefficient of Determination (R^2) is used. This measures the amount to which exogenous constructs explain variation in endogenous components. Second, path coefficients (β) analysis determines the intensity and direction of construct associations, supporting or disproving

hypotheses (Abdillah & Hartono, 2015). This dual-model testing approach integrates measurement accuracy and structural fit to guarantee that the study's analytical model matches theoretical assumptions and empirical data.

RESULT AND DISCUSSION

Respondent Characteristics

Data from online questionnaires distributed via Google Forms on social media, online forums, and other internet-based channels will be used to examine the behavioral intention to use the SIGNAL application for paying motor vehicle taxes. Only 240 of 250 sent questionnaires were valid and suitable for analysis since 10 did not match the requirements. For measurement and structural model analysis, SmartPLS 4.0 was used.

Demographic research shows that all 240 respondents (100%) are acquainted with the SIGNAL app, indicating their ability to assess its value. Most (40.83%) learnt about SIGNAL online, demonstrating the internet's dominance and accessibility. Additionally, 87.5% of respondents have used the SIGNAL app, indicating significant direct experience. All respondents indicated interest in using the app, showing good attitudes and preparedness for digital tax payment methods.

The gender breakdown was 58.75% female and 41.25% male. This shows that women may be more open to technology-based public services like SIGNAL, particularly for time efficiency and household duty management. Most responders (29.58%) are 22–26 years old. Young individuals and early-career professionals are more responsive to digital technology and are starting to pay taxes. Their ease with mobile apps and propensity for practical solutions explain their high SIGNAL app uptake. 90% of responders are from Lampung, while 10% are from outside. This suggests that most users originate from locations with established digital tax systems like e-Samsat. This is mirrored in respondents' monthly consumption patterns: 27.08% spend between Rp. 5,000,000 and Rp. 7,999,999, 20% spend between Rp. 3,000,000 and 4,999,999, and 19.16% spend between 8,000,000 and 10,000,000. These numbers indicate that respondents are mostly middle-income, with consistent earnings and motor vehicle ownership, making the sample suitable for assessing the SIGNAL app's car tax payment usability.

Descriptive Analysis of Respondent Responses

This study examines six variables related to the intention to use the SIGNAL app for paying motor vehicle taxes: subjective norms, perceived security, perceived usefulness, perceived ease of use, perceived trust, and behavioral intention to use. Initial study focused on the subjective norm variable, which included three statement items. The highest average score was 4.66 for the question expressing that significant people would suggest the SIGNAL app. This suggests social impact is crucial to behavioral intention. The average score of this category was 4.56, indicating that respondents largely thought that acceptance and influence from important others, such as family or close friends, support their desire to use the app. Thus, beyond technology, social endorsement drives digital public service uptake like SIGNAL.

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The highest mean score in perceived security, which contained three statement items, was the belief that illegal third-party monitoring during transactions is minimal (mean = 4.65). This variable has an average score of 4.59, indicating high trust in SIGNAL application security. Respondents were confident that their payment and banking information will be secure. These results suggest that a strong feeling of digital security increases consumer trust and willingness to utilize digital platforms for sensitive tasks like tax payments. Thus, system stability and protection greatly reinforce behavioral intention.

Five items were assessed for perceived usefulness. The SIGNAL app's simplicity of use and little effort were the highest-rated statements (mean = 4.23), showing that users liked its convenience. This variable has a mean score of 4.02, significantly lower than the other constructs but still favorable. This shows that although consumers like the SIGNAL app for saving time and simplifying tax payment, it may be improved. However, the data show that perceived utility still influences users' inclination to use SIGNAL.

Five statement questions assessed perceived ease of use. The item saying SIGNAL simplifies job administration, especially tax responsibilities, obtained the highest average score (mean = 4.63), showing that the program is user-friendly. The average for this characteristic was 4.53, indicating that most respondents considered the app straightforward to understand, register for, and use. This simplicity supports Technology Acceptance Model (TAM) concepts that say consumers are more likely to embrace a solution that reduces effort and complexity. These results show that simplicity and ease boost adoption, particularly for busy consumers seeking quick and easy digital solutions.

The remaining two variables—perceived trust and behavioral intention—reinforce SIGNAL's popularity. Based on four measures, perceived trust averaged 4.67, with the item reflecting conviction in the system's dependability scoring the highest (mean = 4.70). Trust is key to consumers' faith in the app. The average SIGNAL intention was 4.67, also high. Respondents agreed most to utilize SIGNAL for tax payment (mean = 4.74). These results show that users are more likely to persist with a platform they trust, find safe, simple to use, and useful. Thus, system dependability and user confidence are essential for long-term engagement with e-government services like SIGNAL.

Measurement Model Evaluation (Outer Model)

The measurement model, or outer model, defines latent variable-indicator correlations and is used to assess study construct validity and reliability. The outer model was evaluated using convergent validity, discriminant validity, composite reliability, and Cronbach's alpha in this research. The outer loading of each indicator shows the association between each observable variable and its latent concept, assessing convergent validity. All indicators in this investigation had outer loading values over 0.70, suggesting a high association and reliable representation of their constructs. The greatest loading (0.933) was for PU3, indicating its considerable influence to perceived usefulness.
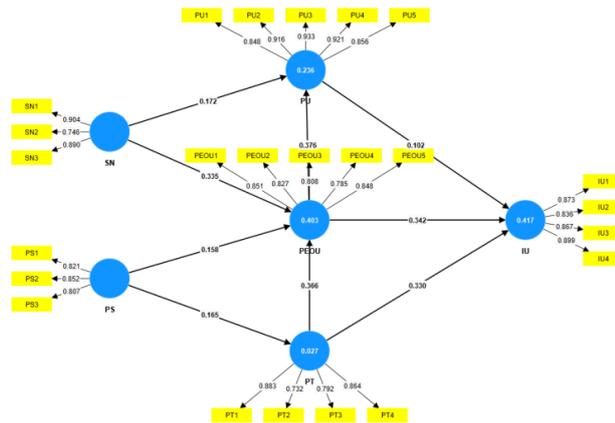
Figure 1. Outer Model

Cross loading values and the square root of Average Variance Extracted assessed discriminant validity. Cross loading showed that each indicator had the largest loading on its latent variable relative to other constructs, proving discriminant validity. Each variable's AVE values were over 0.50, indicating that the constructs explain more than half of their indicators' variation. Fornell and Larcker's discriminant validity requirement was met when AVE square roots exceeded inter-construct correlations.

Table 1. AVE Values and Square Root of AVE

Variable	AVE	Square Root of AVE
Subjective Norm (SN)	0.722	0.849
Perceived Security (PS)	0.683	0.826
Perceived Usefulness (PU)	0.802	0.896
Perceived Ease of Use (PEOU)	0.679	0.824
Perceived Trust (PT)	0.673	0.820
Intention to Use (IU)	0.755	0.869

Measurement model reliability was assessed using composite reliability and Cronbach's alpha. Composite dependability analyzes build internal consistency, with values above 0.70 acceptable. All variables in this research met or surpassed this criteria, with felt trust having the highest composite reliability score of 0.953, suggesting exceptional internal consistency. The measuring instrument's dependability was further confirmed by Cronbach's alpha values for all constructs above 0.60. This research shows that the scales used to measure latent constructs are reliable and resilient.

Table 2. Composite Reliability and Cronbach's Alpha Values

Variable	Cronbach's Alpha	Composite Reliability	Description
Subjective Norm (SN)	0.807	0.925	Reliable
Perceived Security (PS)	0.770	0.914	Reliable
Perceived Usefulness (PU)	0.938	0.866	Reliable
Perceived Ease of Use (PEOU)	0.882	0.891	Reliable
Perceived Trust (PT)	0.843	0.953	Reliable

Intention to Use (IU)	0.892	0.886	Reliable

Structural Model Evaluation (Inner Model)

After evaluating the exterior model, evaluate the inner or structural model. The technique measures the degree to which endogenous variables are explained by exogenous variables using R Square (R^2) values. Path coefficients and t-statistics reflect construct association strength. The R^2 number indicates the percentage of variation explained by the model's predictors in the dependent variable.

According to Table 3, the R^2 value for Perceived Usefulness is 0.417, with 41.7% explained by Subjective Norms and Perceived Ease of Use, and 58.3% by non-model components. The R^2 for Perceived Ease of Use is 0.403, indicating impact from Subjective Norms, Security, and Trust, with other components accounting for 59.7%. Furthermore, Perceived Trust has a R^2 of 0.270, indicating that the model only explains 27% of variation. The R^2 value of 0.236 indicates that 23.6% of the variation in the Intention to Use measure is explained by Perceived Usefulness, Ease of Use, and Trust, whereas 76.4% is impacted by factors not included in this study. The R^2 analysis findings are shown in the table below:

Table 3. R Square Values

Variable	R Square
Perceived Usefulness (PU)	0.417
Perceived Ease of Use (PEOU)	0.403
Perceived Trust (PT)	0.270
Intention to Use (IU)	0.236

Hypothesis Testing Results

This research tested assumptions using Structural Equation Modeling with Partial Least Squares (PLS). SmartPLS 4.0 software used bootstrapping to estimate standard errors and path coefficient significance during hypothesis testing. Non-parametric resampling allows robust testing of model parameters including outer weights, loadings, and route coefficients. This study examined the original sample coefficients, standard deviation, t-statistics, and p-values. Table 4 and Figure 2 show hypothesis testing outcomes.
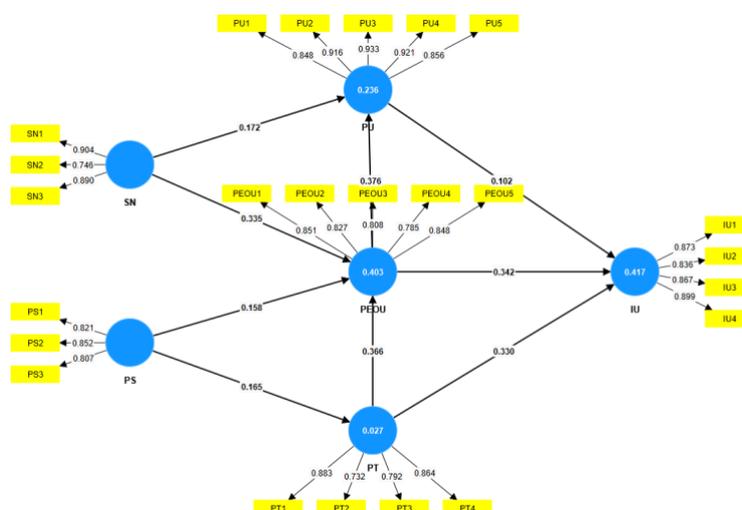
Figure 2. Research Model Results

H1 proposed that subjective norms greatly impact perceived usefulness. With a path coefficient of 0.172 and a t-statistic of 2.755 (p = 0.006), this association is statistically significant at 5%. Hypothesis H2 suggested subjective norms affect perceived usability. A greater path coefficient of 0.335, t-statistic of 4.729, and p-value below 0.001 confirmed that social impact affects users' evaluations of SIGNAL's simplicity. The third and fourth hypothesis examined how perceived security affects ease of use and trust. Perceived security substantially predicts ease of use (H3: β = 0.158, t = 2.903, p = 0.004) and trust (H4: β = 0.165, t = 2.393, p = 0.017). These data show that security protection boosts system trust and usefulness. Hypothesis H5 was validated, showing that perceived trust strongly impacts perceived ease of use (β = 0.366, t = 5.341, p < 0.001), emphasizing the importance of trust in digital service user experience (Gefen et al., 2003). Also, hypotheses H6–H9 evaluated mediating routes to intention to use. Perceived usefulness was considerably increased by perceived ease of use (H6: β = 0.376, t = 4.750, p < 0.001), supporting Davis' (1989) Technology Acceptance Model (TAM) of a reciprocal link between the two. Both perceived trust (H7: β = 0.330, t = 4.750, p < 0.001) and perceived simplicity of use (H8: β = 0.342, t = 4.475, p < 0.001) showed substantial positive impacts on intention to use the SIGNAL app. Perceived usefulness had a significant effect on intention to use, but with a lower path coefficient (H9: β = 0.102, t = 2.238, p = 0.025). This suggests that although usefulness is important, it may have a lesser direct impact than trust and usability.

Table 4. Hypothesis Testing Summary

Hypothesis	Relationship	Coefficient	*t*-Statistic	*p*-Value	Result
H1	SN → PU	0.172	2.755	0.006	Accepted
H2	SN → PEOU	0.335	4.729	0.000	Accepted
H3	PS → PEOU	0.158	2.903	0.004	Accepted
H4	PS → PT	0.165	2.393	0.017	Accepted
H5	PT → PEOU	0.366	5.341	0.000	Accepted
H6	PEOU → PU	0.376	4.750	0.000	Accepted
H7	PT → IU	0.330	4.750	0.000	Accepted
H8	PEOU → IU	0.342	4.475	0.000	Accepted
H9	PU → IU	0.102	2.238	0.025	Accepted

The Influence of Subjective Norms on Perceived Benefits

Our first hypothesis examined how subjective standards affect perceived usefulness. Statistical findings show that subjective norms strongly impact users' opinions of the SIGNAL app's usefulness (p*-value < 0.05). This shows that social influences—such as family, peer, and community opinions—influence consumers' ideas about the app's advantages. Application developers must create communication strategies that incorporate recognized public figures including local governments, internet influencers, and community leaders. Testimonial marketing and user experience narratives may highlight SIGNAL's worth. The Technology Acceptance Model (TAM) proposes that subjective standards impact perceived usefulness via reference group influence in marketing theory. Consistent with

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Venkatesh and Davis (2023), subjective standards indirectly affect perceived utility via social influence.

The Influence of Subjective Norms on Perceived Ease of Use

H2 and the second hypothesis that subjective criteria considerably affect perceived ease of use are supported by statistical analysis. SIGNAL users see it as user-friendly due to peer, family, and coworker support. According to López-Nicolás et al. (2008) and Park (2009), subjective standards might affect users' views of technical system easiness. Credible sources that say SIGNAL is simple are trusted. This study emphasizes active user communities and use narratives in management. Community training, digital literacy initiatives, and engaging social media material on the app's user-friendliness may improve its image. This strategy uses experiential marketing and supports the Technology Acceptance Model's focus on social norms in technology adoption.

The Influence of Ease of Use on Loyalty

H3's acceptability in the study supports the third hypothesis that perceived security and simplicity of use are related. Security underpins consumer satisfaction in digital apps. If consumers think SIGNAL is safe, they'll find it simpler to use. According to Baabdullah et al. (2019), security improves usability. A higher feeling of security corresponds with higher application ease perceptions. SIGNAL must clearly display its security elements, such as OTP systems, institutional branding, data encryption, and accessible privacy rules. The app UI and external channels must continually transmit these components. Security is an external element that indirectly affects consumers' perceived ease of use in the expanded Technology Acceptance Model (TAM).

The Influence of Perceived Security on Perceived Trust

The acceptance of H4 supports the fourth hypothesis that perceived security strongly impacts user trust. Users trust the SIGNAL app because they believe their personal data and digital transactions are safe. Shaw (2014) agrees that security is the key to trust in digital service contexts. The analytical findings show that perceived security directly affects user trust, emphasizing the need for SIGNAL administrators to maintain system credibility. This requires better data protection, financial transaction security, and legal protections. Displaying government emblems, partnering with respected banks, and treating data responsibly build confidence. Trust is essential for long-term participation in e-government platforms since it underpins user-provider interactions in marketing theory, especially in service and digital settings.

The Influence of Perceived Trust on Perceived Ease of Use

Acceptance of H5 supports the fifth hypothesis that perceived trust considerably impacts reported ease of use. Trusting the SIGNAL app reduces users' perception of dangers, making the platform seem more user-friendly. Rouibah et al. (2016) believe that trust reduces perceived risk and makes technology adoption more comfortable. Official status, institutional credibility, and secure administration

provide users confidence in the application's authenticity, which improves user experience. Thus, SIGNAL must assure security, give excellent service, respond quickly to consumer problems, and provide a professional and user-friendly interface. Trust decreases ambiguity in the Technology Acceptance Model (TAM), improving usability and system engagement.

The Influence of Perceived Ease of Use on Perceived Benefits

The sixth hypothesis shows that perceived ease of use affects perceived usefulness, supporting H6. According to Davis (1989), the Technology Acceptance Model (TAM) argues that user-friendly systems are more likely to be beneficial. System usability boosts consumers' usefulness perceptions. When SIGNAL's interface, procedures, and features are simple, users find it helpful. The app should prioritize user-friendly design aspects such a simple layout, easy navigation, and speedy payment procedures to improve this impression. User benefits may be enhanced by adding supported features such car data autofill, real-time transaction progress monitoring, and unified navigation. SIGNAL's digital car tax solution becomes more effective and realistic with this approach.

The Influence of Perceived Trust on Intention to Use

H7 indicates that perceived trust influences users' willingness to engage with the SIGNAL app. Türker et al. (2022) identified trust as a critical determinant of behavioral intention in the context of mobile payments and related digital services. Users are more inclined to use SIGNAL when they perceive it as trustworthy, safe, and effectively managed. SIGNAL must cultivate a consistent and authoritative institutional image by preserving its status as the sole government-endorsed platform for car tax payments. Transparent communication, governmental branding, endorsements from public figures, and effective user support can enhance trust. Trust facilitates sustained engagement, fosters user loyalty, and promotes widespread adoption of digital services in the public sector.

The Influence of Perceived Ease of Use on Intention to Use

Statistics support H8's claim that SIGNAL app customers' motivation to utilize it is greatly influenced by perceived simplicity. This confirms Madan and Yadav (2016) and Thakur and Srivastava (2014), who found that ease of use greatly impacts technology adoption behavioural intentions. Easy-to-use SIGNAL app users are more likely to utilize it. The platform must simplify registration and payment, provide smooth navigation, and provide a visually appealing interface to increase UX. Regular user satisfaction surveys and focus group discussions may highlight usability concerns. A smooth user interface is needed to improve government digital service acceptability, since the Technology acceptability Model (TAM) shows that ease of use directly influences behavioral intention.

The Influence of Perceived Benefits on Intention to Use

H9, the ninth and final hypothesis, shows that perceived utility greatly impacts SIGNAL application adoption. This suggests that consumers who see real

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advantages like time efficiency, convenience of access, and simplified services are more likely to utilize the app. This is consistent with Grover et al. (2019) and Iriani and Andjarwati (2020) findings that perceived utility affects digital service platform utilization. When consumers believe SIGNAL reduces lines and speeds up Samsat services, they are more likely to utilize it. SIGNAL should stress these advantages in digital advertising and social media. Value-based marketing, which follows the Technology Acceptance Model (TAM), emphasizes the perceived value of a digital service in determining user intention.

CONCLUSION

This study found that path coefficient testing using the Partial Least Square (PLS) method supported all nine hypotheses, confirming the model's structural validity in explaining users' intention to use the SIGNAL app for motor vehicle tax. Subjective norm strongly affects perceived usefulness, demonstrating that family and peer influence improves SIGNAL's perceived usefulness. Subjective norm also substantially influences perceived ease of use, therefore reputable source recommendations may boost users' confidence in the app. Users' perception of safety directly affects system usability and credibility, as perceived security was a key factor of reported ease of use and trust. Trust's psychological function in lowering hesitancy and improving user comfort was shown to greatly affect perceived ease of usage. Perceived ease of use substantially affected perceived usefulness, whereas trust and perceived ease of use positively affected SIGNAL intention. Last but not least, perceived utility strongly influenced users' intention to use, indicating that time efficiency and service accessibility maintain adoption.

The empirical data provide numerous suggestions. SAMSAT must expand socialization and digital education, especially in low-digital-literacy areas. Social media initiatives, community outreach, and local institution partnerships may accomplish this. Maintaining user trust and system usefulness requires responsive call centers, live chat, and qualified helpdesk staff. To reassure consumers, SAMSAT must continually update SIGNAL's infrastructure to secure data and transactions. To make SIGNAL more useful and valuable, integrate it with other public services and digital payment channels. Future studies could include factors like user experience, perceived danger, faith in government, and digital literacy to the model to better explain SIGNAL adoption behavior. Qualitative or mixed-method techniques may enhance user impressions. Future research should examine demographic groupings and compare areas to uncover contextual variations in SIGNAL adoption in Indonesia.

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