



Taxpayer's Intention to Use e-Samsat in Payment of Motor Vehicle Tax: Analysis Based on Theory of Reasoned Action

Ni Ketut Sukasih¹, I Putu Mertha Astawa², and Jeni Susanti³

^{1,2,3} Accounting Department, Politeknik Negeri Bali, Bali, Indonesia
kasih.sukasih@yahoo.co.id

Abstract. To meet its regional original revenue targets, the Bali provincial government introduced the e-SAMSAT application to simplify vehicle tax payments for taxpayers. However, even after five years of implementation, e-SAMSAT has not fully succeeded in increasing vehicle tax revenues, as significant payment arrears remain. This study examines the impact of e-SAMSAT on taxpayer behavior using the Theory of Reasoned Action (TRA), which examines how attitudes, subjective norms and intentions predict and explain behavioral change. In particular, the research examines how taxpayers' attitudes and subjective norms shape their intention to use the e-SAMSAT system and how this intention affects their actual behavior in paying the car tax. The method of analysis is PLS-SEM. This research aims to provide a detailed understanding of the effectiveness of e-SAMSAT and the factors influencing vehicle tax payment behavior among taxpayers in Bali Province. The results show that taxpayers' attitudes have a positive and significant effect on their interest in using e-SAMSAT, subjective norms also have a positive and significant effect on this interest, but the facilities provided by the e-SAMSAT platform do not have a significant effect on the intention to use the system.

Keywords: e-SAMSAT, Motor Vehicle Tax, Taxpayer's Intention, Theory of Reasoned Action

1 Introduction

According to the Bali Central Statistics Agency, the number of motorized vehicles in Bali has increased steadily over the past two years. In 2021, the growth rate was 1.6%, rising to 5.2%, in 2022, with projections suggesting further growth in 2023. Given this trend, the Bali provincial government has identified vehicle tax as an important potential source of regional original revenue (PAD). As a result, quoted from Bali & Nusra Business Daily February 7th, 2023, vehicle tax has become a key component in achieving the 2023 PAD target of IDR 4.8 trillion. To achieve this revenue target, various initiatives have been implemented, including the introduction of the e-SAMSAT (electronic One-Stop Single Administration System) application, which aims to simplify the vehicle tax payment process. The e-SAMSAT system is designed to make it easier for taxpayers to meet their obligations more efficiently by reducing

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risks and saving time (Pangalila et al., 2015). Through e-SAMSAT, vehicle owners can conveniently pay their taxes online without having to visit the tax office in person.

Despite being in place for about five years, e-SAMSAT has not fully succeeded in increasing vehicle tax revenues. According to data from Kompas.com, 449,249 vehicles have not paid their taxes since 2022, resulting in outstanding tax arrears of approximately IDR 223 billion. These significant arrears have contributed to vehicle tax collection falling short of the target, with less than 90.0 percent of the expected revenue being collected. In light of these facts, this study aims to further investigate the extent to which the government's e-SAMSAT system influences vehicle owners' behavior in meeting their tax obligations. Empirical evidence suggests that the e-SAMSAT system still faces challenges that prevent it from fully optimizing its role in achieving the vehicle tax revenue target. Therefore, this study aims to analyze taxpayers' behavioral intentions to use e-SAMSAT for vehicle tax payments, using the Theory of Reasoned Action as a theoretical framework (Hagger, 2019).

The Theory of Reasoned Action (TRA), introduced by Sheppard et al, is a social psychological concept designed to explain the factors that influence how people act. It describes the relationships between beliefs, attitudes, subjective norms, intentions and individual behavior (Sheppard et al., 1988). TRA is considered a credible and popular theory and has been widely used in management research for many years. Researchers from both developed and developing countries have often used TRA in their studies. In addition to its application in social psychology, TRA has also been used in research on technology adoption, innovation acceptance, and consumer behavior. The theory is often used by researchers to address issues related to individual attitudes and behavior. Attitude, for example, represents an individual's mental disposition that determines his or her intention to engage in a particular behavior (Maryam et al., 2022). An example of this is Riley and Klein's use of TRA to examine consumer behavior in the context of online shopping (Noor et al., 2023).

The results of a study by Prayoga et al. (2018) show that attitudes have a significant influence on intentions. In addition to attitudes, subjective norms also play an important role with a significant influence on intentions (Massoro & Adewale, 2019). Subjective norms can influence behavioral intentions because they reflect the subjective views or beliefs of individuals or groups toward certain behavior (Saedi et al., 2020). When positive attitudes and subjective norms are strong, intentions to engage in positive behavior will be high, and vice versa (Ryu et al., 2023). Research from a different perspective has also been carried out by Davis et al. using TRA to analyze factors that motivate or hinder computer use (Davis, 1989). Wang and Chou show that consumer attitudes can influence purchase considerations and are closely related to purchase intentions (Wang & Chou, 2014). The availability of customer service facilities can also increase the intention to shop online. Al-Debei et al. explained that customer service factors also influence attitudes toward online shopping behavior (Al-Debei et al., 2015). Customer service is one of the important factors that create a positive attitude towards online shopping behavior.

This study extends the existing Theory of Reasoned Action (TRA) by incorporating the active role of the government in promoting the use of e-SAMSAT. The active involvement of the government is integrated into the conceptual framework of the research as a factor that strengthens the relationship between the key elements of the TRA and the behavior of e-SAMSAT users. Key aspects of the government's role

include educating the public about e-SAMSAT and the availability of service facilities. Education efforts aim to improve public understanding of e-SAMSAT, while service facilities aim to ensure optimal support for its use. Knowledge is a critical factor that can influence individual actions (Saeedi et al., 2020) and significantly affects a person's intentions (Purwanto et al., 2020). Similarly, Alnasser et al. highlighted that knowledge is an important determinant that influences individual behavior (Alnasser et al., 2018). However, different findings by Effendi et al. indicated that knowledge did not significantly influence consumer behavior.

Based on TRA and several previous research results, four research hypotheses are proposed as follows. H₁: Taxpayers' attitudes can positively and significantly influence behavioral intentions towards the use of e-SAMSAT for the payment of car tax; H₂: Taxpayers' subjective norms can positively and significantly influence behavioral intentions to use e-SAMSAT for the payment of vehicle tax; H₃: The knowledge of the taxpayer can significantly moderate the behavioral intentions to use e-SAMSAT to fulfill the obligation to pay the car tax; and H₄: The facilities available on e-SAMSAT can strengthen behavioral intentions in using e-SAMSAT to fulfill the obligation to pay motor vehicle tax.

2 Methodology

The approach used in this research is a quantitative approach, namely to explain the relationship between the independent variables (attitudes, subjective norms, knowledge and facilities) on the behavioral intentions of motor vehicle taxpayers regarding the use of e-SAMSAT. The population in this study is the number of motor vehicle taxpayers registered in the province of Bali at the end of 2023, which is 4,756,364 people. The research sample size was determined using Slovin's formula with a margin of error of 10.0 percent. Based on the calculated results, it is known that the Research Sample Size is 99.99, rounded up to 100, which means that the Research Sample Size amounts to 100. The research sample size is therefore 100. The research respondents are car taxpayers, both two-wheeled vehicles and four-wheeled vehicles or more.

The sampling technique used in this research is non-probability sampling. Specifically, the sampling technique used is accidental sampling. Purposive sampling is a sampling technique that relies on chance, where every person who happens to meet the researcher can be considered as a sample, as long as the person who happens to meet the researcher is suitable as a data source. Research data is primary data collected using a questionnaire. This research uses five construct variables, namely the independent variable consisting of attitude variables and subjective norm variables. The moderating variable consists of the knowledge variable and the facility variable. The dependent variable of the research is the behavioral intention variable. The variables are measured using a 5-point Likert scale ranging from strongly disagree (score 1) to strongly agree (score 5). The research data was analyzed using Partial Least Square Structural Equation Model (PLS-SEM) analysis. The purpose of using PLS-SEM includes predicting relationships between variables, confirming theories, and testing research hypotheses.

To test the validity and reliability, Pearson correlation and Cronbach's Alpha will be employed. If the Pearson correlation coefficient is equal to or greater than 0.30, the data is considered valid. Additionally, the data is deemed reliable if Cronbach's Alpha value exceeds 0.60. Upon testing, it was found that all the data in this study exhibited validity

and reliability. Consequently, it is deemed suitable to proceed with the subsequent analysis.

3 Result and Discussion

3.1 Result

Characteristics of Research Respondents. Overall, 59.0% or 59 respondents who completed the questionnaire were women. On the other hand, 41.0% or 41 respondents were men. The predominant age of the respondents was between 18 and 27 years with 53.0%. Respondents aged between 28 and 43 accounted for 47.0%. Looking at the age group of the respondents in this study, they can be divided into two generational groups, namely Generation Y or Millennials, those born between 1981 and 1996, and Generation Z, those born between 1997 and 2012. In this context, it can be said that e-SAMSAT users tend to be respondents who are already familiar with technology and the Internet.

Description of Research Variables. The variables in this research consist of attitude variables, subjective norms, and facilities as independent variables, knowledge as a moderating variable, and behavioral intentions as the dependent variable. Description of the research variables, described based on the respondents' assessment of 21 indicators, divided into attitude variables with five indicators, subjective norms with four indicators, facilities with four indicators, knowledge with four indicators, and behavioral intent (intention) with a total of four indicators. The research variables were described by referring to the average results of the indicators and variables and by reading the results of the analysis using descriptive statistics.

The average score for the attitude variable reached 3.98, which was categorized as a positive attitude. Overall, these results indicate that respondents have a positive attitude towards the variables measured, with particular emphasis on the time efficiency gained from using e-SAMSAT. This indicator received a score of 4.32, indicating that respondents strongly agree that e-SAMSAT provides significant benefits in terms of time efficiency. Respondents' perceptions of subjective norms received an average score of 2.89, indicating a significant impact. These results indicate that social groups or community norms influence taxpayers in using e-SAMSAT.

The facility services offered on the e-SAMSAT platform have the potential to impact consumer behavior. These services encompass all the physical equipment provided by the service provider to enhance user comfort. The average score for this facility-related variable is 3.85, suggesting a relatively high level of comfort among users. Additionally, respondents demonstrated a generally good level of knowledge, with an average score of 3.64, reflecting their understanding of the e-SAMSAT platform.

Taxpayers' intentions to use e-SAMSAT are measured from the willingness to download the e-SAMSAT application, to use it to fulfil tax obligations, to the intention to continue using it and to follow the latest developments on this platform. Behavioral

intention can be interpreted as an individual’s cognitive readiness to perform an action. The average value of this variable reached 3.69, which shows the high intention of taxpayers to use e-SAMSAT for the payment of car tax. However, the indicator indicating the intention to use e-SAMSAT regularly has the lowest score (3.43), although it is still in the high category.

Structural Model. The structural model generated by the calculation algorithm in Smart-PLS 4.0 is shown in Figure 1. This model shows the predicted relationships between the latent variables in the structural model (inner model) and the reflective model (outer model). Before this, an evaluation of the measurement model is required. This is known as the outer model test. The purpose of the external model test is to determine the relationship between variables and their indicators. The first test was carried out by checking the outer loading value. A loading value greater than 0.70 ($\lambda \geq 0.70$) is recommended because it indicates that the reliability of the items is acceptable. In this study, the lowest loading factor value was 0.705 and the highest was 0.901, all of which were above 0.70. Therefore, all indicators are declared reliable and acceptable.

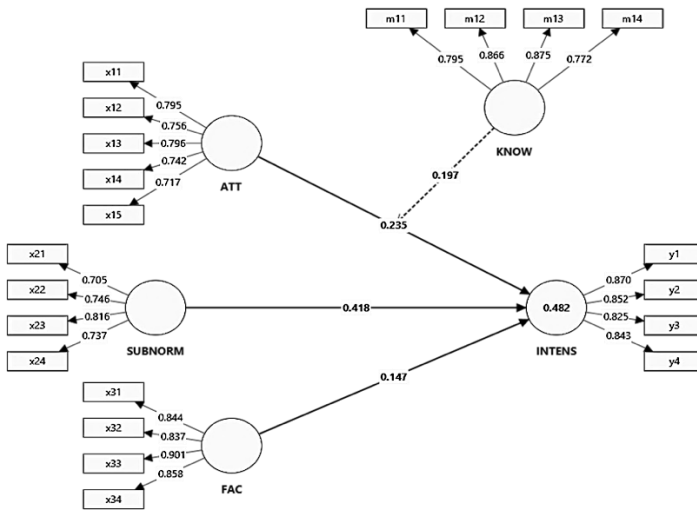


Figure 1. Structural model (calculate algorithm results)

Another test is to assess the validity of the construct by looking at the Average Variant Extracted (AVE) and discriminant validity. A good model is one in which the AVE of each construct is greater than 0.50 (> 0.50). The AVE output results show that the AVE value for the Attitude (ATT) construct is 0.581; Subjective Norm (SUBNORM) is 0.566; Facilities (FAC) is 0.740; Knowledge (KNOW) is 0.683; and Interest (INT) is 0.707. The results show that all research constructs are considered valid as they have an AVE value greater than 0.50 (> 0.50). Cross loadings (CL), Fornell-Larcker Criterion (FLC) and Heterotrait-Monotrait Ratio (HTMT) values are used in the discriminant validity test. The discriminant validity test aims to ensure that the reflective indicator

is a good measure. The cross-loading value is expected to be greater than 0.70. The cross-loading values of each indicator on the variables in this study are all greater than 0.70, so the model has good discriminant validity. The results of the discriminant validity test with FLC have a greater value for the variable compared to the FLC value of other variables, so the model has good discriminant validity. The HTMT results of this research are less than 0.90, which explains that the measurement indicators have good discriminant validity in forming their respective variables.

The next step in model evaluation is a test of construct reliability, which is measured by two criteria, namely the composite reliability and the Cronbach alpha of the block of indicators that measure the construct. Reliability tests are conducted to demonstrate the accuracy, consistency, and precision of the instrument in measuring the construct. A construct is considered reliable if the composite reliability value is > 0.6 and the Cronbach's alpha value is between 0.70 and 0.90. The Cronbach's alpha value in the research is above 0.70, which means that the construct is reliable and consistent. The value for composite reliability is between 0.70 and 0.90, which is in the ideal category. This shows that the research instrument is well able to measure the concept that is the subject of the research.

Test of Model Fit. Testing the goodness of fit of a model in PLS-SEM can be done by looking at the coefficient of determination (R^2) and the Q-squared predictive relevance value. Meanwhile, the goodness-of-fit model test uses the Standardised Root Mean Square Residual (SRMR). The R^2 value is 0.67; 0.33 and 0.19 can be considered as substantial, moderate and weak explanatory power. A model is considered to have relevant predictive value if the Q-square value is greater than 0 (>0). The Standardised Root Mean Square Residual (SRMR) is used to assess the suitability of the model. The model can be said to have a good fit if it produces an SRMR value of 0.06 and could be higher.

The R-squared value for the Interest (INT) variable using e-SAMSAT in this study was 0.485, which is medium or moderate. The R-squared value is 0.485, which means that the variability of the Interest (INT) construct can be explained by the variability of the Attitude (ATT), Subjective Norm (SUBNORM), Facilities (FAC), and Knowledge (KNOW) constructs of 48.5 percent, 51.5 percent. percent is explained by other variables outside of those studied. The model has moderate or moderate predictive relevance ($Q^2 = 0.485$) for taxpayer interest (INT) in using e-SAMSAT. This can be interpreted to mean that the model can predict taxpayers' interest (INT) in using e-SAMSAT with moderate/moderate accuracy. The SRMR value in the saturated model is 0.08 and the estimated model value is 0.08, indicating that the estimated model is adequately fitted.

Testing of Hypotheses. The test was conducted to see the significance between the influence of the application of Attitudes (ATT), Subjective Norms (SUBNORM), Facilities (FAC) on Interest (INTENS) directly using e-SAMSAT and the moderating influence of Knowledge (KNOW) on the relationship between Attitudes (ATT) and

Interest (INTENS). The significant relationship seen through the path coefficients in the bootstrapping report is shown in Table 1.

Table 1. Path coefficients

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
ATT -> INTENS	0.235	0.251	0.105	2.234	0.026
FAC -> INTENS	0.147	0.140	0.092	1.586	0.113
KNOW -> INTENS	-0.005	0.023	0.098	0.049	0.961
SUBNORM -> INTENS	0.418	0.415	0.064	6.517	0.000
KNOW x ATT -> INTENS	0.197	0.183	0.098	2.009	0.045

From Table 1, we can see that each independent variable has a t-statistic of 2.234 for attitudinal (ATT), 6.517 for subnormal (SUBNORM), and 1.586 for facility (FAC). The relationship of influence is said to be significant if the t-statistic is greater than the value of the t-table, which is 1.96 (> 1.96). Thus, in this study, only the Facilities variable (FAC) has a value smaller than the t-table, which means that it has no significant effect on Interest (INTENS) using e-SAMSAT. Thus, it can be said that the taxpayer’s attitude towards interest in using e-SAMSAT directly has a positive and significant effect, so the first hypothesis (H1) is accepted. The results of the second hypothesis test also show that subjective norms have a positive and significant effect on interest in using e-SAMSAT directly, so the second hypothesis (H2) is accepted. On the other hand, the third hypothesis (H3) was rejected because the t-statistic value (1.586) was $<$ that of the t-table (1.96). Similarly, looking at the p-value of the institution, it is 0.113, which is much higher than the required p-value of $p < 0.05$.

The results obtained from testing the hypothesis of the moderating role of knowledge (KNOW) on interest in using e-SAMSAT (Table 1) show that the t-statistic value is 2.009, which is greater than the t-table value (1.96), and the p-value is 0.045, which is less than 0.05, and the value of the original sample is positive at 0.197. Based on the results of this test, it can be said that the fourth hypothesis (H4) of the research is accepted. These results provide evidence that knowledge (KNOW) has a significant positive moderating role on the relationship between characteristics and interest in using e-SAMSAT. The results of this research indicate that knowing about e-SAMSAT can increase the interest of individuals in using e-SAMSAT services.

3.2 Discussion

Taxpayers’ attitudes were found to have a positive and significant effect on their interest in using e-SAMSAT, based on the results of the analysis. This shows that the more positive the taxpayers’ attitude towards e-SAMSAT, the higher their interest in using

the service. This positive attitude is likely to be influenced by their perception of the convenience, benefits, and efficiency offered by e-SAMSAT. This finding is in line with Fishbein and Ajzen's Theory of Reasoned Action (TRA), which states that attitudes influence behavior, which ultimately contributes to the formation of intentions to perform certain actions (Ajzen, 2001; Sheppard et al., 1988).

The results of the second hypothesis test show that subjective norms have a direct positive and significant effect on interest in using e-SAMSAT. This shows that social norms or pressure from the environment, such as family, friends, or colleagues, play an important role in promoting taxpayers' interest in using e-SAMSAT. The research findings support Fishbein and Ajzen's Theory of Reasoned Action (TRA) and are consistent with research findings by Massoro and Adewale (2019) and Ryu et al. (2023) that subjective norms have a significant impact on behavioral intentions. However, the results of the third hypothesis test show that the facilities available on the e-SAMSAT platform do not have a significant effect on taxpayers' interest in using the platform. This means that although the facilities available on the e-SAMSAT platform may be good enough, they do not significantly increase taxpayers' interest in using the platform.

Based on the results of the hypothesis testing of the moderating role of knowledge (KNOW) on interest in using e-SAMSAT, the results obtained provide evidence that knowledge (KNOW) plays an important role as a moderator in the relationship between attitude (ATT) and interest (INTENS) in using e-SAMSAT. Better knowledge about e-SAMSAT, such as how to use it, its benefits, and features, can increase individuals' interest in using the service. These findings strongly confirm that knowledge plays an important role in reinforcing the influence of attitudes on interest. In other words, the more knowledge taxpayers have about e-SAMSAT, the greater the influence of their positive attitudes on their interest in using the service. Previous studies by Wang and Chou (2014) only stated that knowledge is an important factor that can encourage a person's behavior. However, the findings of this study provide stronger empirical evidence that knowledge is not only important but also strengthens the relationship between positive attitude and intention to use. Thus, individual knowledge of e-SAMSAT is not only an important factor but also a factor that strengthens the relationship between positive attitudes and interest in using this service.

4 Conclusion

The results of the analysis indicate that taxpayers' attitudes and subjective norms significantly influence their interest in using e-SAMSAT, while the features available on the platform do not have a significant effect. Specifically, the study confirms that a positive attitude towards e-SAMSAT and the influence of social norms significantly increase interest in using the service. However, the facilities provided, although important for user comfort, do not directly increase this interest. In addition, knowledge plays a crucial moderating role, reinforcing the effect of a positive attitude on the intention to use e-SAMSAT. In conclusion, the study validates the Theory of

Reasoned Action (TRA) by showing that both attitude and subjective norms are significant predictors of behavioral intention, while knowledge further strengthens this relationship.

The findings of this study have several practical implications for policymakers and service providers. First, to increase the adoption of e-SAMSAT, efforts should be directed toward enhancing taxpayers' positive attitudes by highlighting the convenience, benefits, and efficiency of the service. In addition, the use of social influence, such as recommendations from family, friends, and colleagues, can further increase interest in using e-SAMSAT. While improving facilities is essential for user comfort, it may not directly drive interest, so resources may be better allocated to awareness and education campaigns that increase taxpayers' knowledge of e-SAMSAT. This increased knowledge can significantly strengthen the positive impact of attitude on intention to use the service, leading to higher adoption rates.

Future research could explore several avenues to build on the findings of this study. Firstly, examining the long-term impact of attitudes, subjective norms, and knowledge on the sustained use of e-SAMSAT could provide deeper insights into user behavior over time. Additionally, future studies could investigate other potential moderating variables, such as trust in the system or perceived risk, to see how they interact with attitudes and intentions.

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