



# Determinants of User Satisfaction with Local Tax Online Applications with Modifications of the EGovsat Approach

Dessanti Putri Sekti Ari<sup>(✉)</sup> and Muhammad Nashrullah Arifin

Universitas Brawijaya, Malang, Indonesia  
dessanti@ub.ac.id

**Abstract.** The online local tax application is one of the e-government owned by the Malang city government. This online local tax application was created to make it easier for taxpayers to pay local taxes. The Government of Malang City has socialized the use of local tax applications. However, there are still some taxpayers who pay taxes manually. User satisfaction is one of the success factors of an information system. Therefore, this study aimed to determine the determinants of user satisfaction with online tax applications using modifications of the EGovsat approach. The variables used in this study refer to the EGovsat approach. So that the variables in this study are efficiency, utility, flexibility, reliability, customization, and user satisfaction. The EGovsat model was modified in this study by adding a risk variable. Accidental sampling is the technique applied for sampling. The number of samples used is 100 users of online local tax applications in Malang. This study uses an online survey via Google Forms to collect data. The results showed that utility, reliability, and efficiency affected user satisfaction of Online Local Tax Applications. Meanwhile, customization, flexibility, and risk do not affect user satisfaction of Online Local Tax Applications.

**Keywords:** Online Local Tax Application · e-government · EGovsat · User Satisfaction

## 1 Introduction

E-government is implementing information technology government to facilitate the delivery of services and information to the general public. The existence of e-government can facilitate interaction with the community, improve the service process more quickly, and encourage public service providers' transparency. Especially with the covid pandemic since 2021 and with social distancing, the government is getting better at improving e-government services.

Given the importance of the government's role, the local government of the city of Malang made an Online Regional Application, one of the information technology innovations in the field of taxation. Online local tax application in the city is called e-SPPT. This application was first launched in April 2021. This application can pay rural and urban land and building taxes (PBB-P2).

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The Malang City Online Regional Tax Application has been boldly disseminated through social media. However, there are still some taxpayers who pay taxes manually. User goals are one of the success factors of an information system. Happy or disappointed appears after comparing the perception/impression of a product's performance (or results) and his expectations [1]. Therefore, this study aimed to determine the satisfaction of online tax application users with the EGovsat approach and its modifications.

Egovsat is an e-government user satisfaction model developed by Horan et al. [2]. In order to establish a scale by which government-citizen web programs can be evaluated as a function of the satisfaction received by civilians, the Egovsat model has been developed. According to the Egovsat model, five variables affect user satisfaction: utility, reliability, efficiency, flexibility, and customization [2]. The utility is a tool to test whether a website is running well or not with an indication of ease of use [2]. Horan and Abhichandani et al. [3] examined user satisfaction with the Advance Transportation Information System (ATIS) in Los Angeles. The Egovsat model shows that utility is vital to e-government user satisfaction.

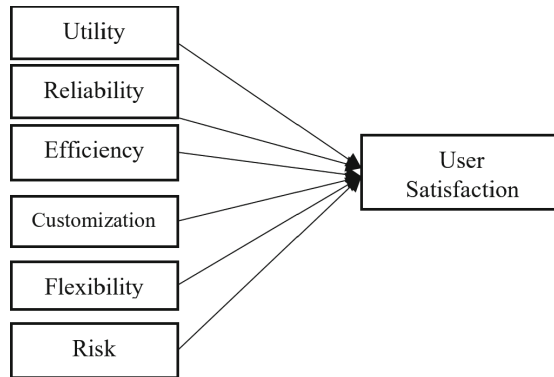
The reliability construct examines website/application functions appropriately in terms of technology as well as the accuracy of the content. Reliability is essential to user satisfaction with an e-government service [2]. The research of Ahmed et al. [4] shows that reliability affects user satisfaction with e-government services. Efficiency" construct examines the accessibility and organization of the features and information available on the website. Efficiency is an essential factor influencing user satisfaction with an e-government service [2, 3]. The research results by Horan and Abhichandani [3] show that efficiency affects e-government user satisfaction. Customization examines the adaptability offered to customers regarding access methods and information content. The research results by Horan and Abhichandani [3] show that customization affects e-government user satisfaction.

Flexibility is the ability of information systems to make changes to meet user needs. Flexibility significantly affects an e-government service, whether it can display information dynamically and has many options for users. If users feel that the information displayed is dynamic and adjusts to the conditions of user needs, then they will feel satisfied. Alias et al. [5] examined e-government in Malaysia using the Egovsat model. The results of Alias' research show that flexibility affects e-government user satisfaction.

In this research, the researcher adds one more variable: the risk variable. Risk is the consumer's perception of uncertainty and the magnitude of the possible adverse consequences. According to Osman et al. [6], the risk is one of the factors that can affect user satisfaction. Risks related to user privacy security. Therefore, this research focuses on determining whether the variables of utility, reliability, efficiency, flexibility, customization, and risk affect user satisfaction. This is a fourth level heading. You can replicate it where suitable.

## 2 Methods

Based on the description above, the researchers made a research model as follows:



**Fig. 1.** Research model.

Based on the research model in Fig. 1, the hypotheses in this study are:

- H1: Utility affects the satisfaction of using the Malang City Online Local Tax Application.
- H2: Reliability affects the satisfaction of using the Malang City Online Local Tax Application.
- H3: Efficiency affects the satisfaction of using the Malang City Online Regional Tax Application.
- H4: Customization affects the satisfaction of using the Malang City Online Local Tax Application.
- H5: Flexibility affects the satisfaction of using the Malang City Online Regional Tax Application.
- H6: The risk affects the satisfaction of using the Malang City Online Regional Tax Application.

This study is explanatory research. Explanatory research explains the causal relationship between variables that influence the hypothesis [7]. The research location in this study was Malang City, East Java, Indonesia. The population is all the Online Regional Tax Application users in Malang City. The total population in this study is unknown. The sampling method used an accidental sampling technique and the sample size consisted of 100 respondents. A questionnaire that was distributed via Google Form Media was utilized as the method of collecting data. The distribution is done by distributing the google form link to close relatives of researchers who are residents of Malang City. Researchers also received assistance from employees of the Malang City Regional Revenue Agency. The data in this study were processed using Partial Least Square (PLS) software. PLS is used in this study because it is a statistical method appropriate for assessing the predictive significance of the link between latent variables in a model, and it is used for this research. Moreover, PLS may assess research models with a shaky theoretical basis and can be applied to tiny data samples. It also does not need data with a normal distribution [8]. PLS is a statistical technique that combines factor analysis and regression methods [9].

The variables used in this study are utility, reliability, efficiency, customization, flexibility, risk, and user satisfaction. The indicators used to measure utility, reliability, efficiency, customization, flexibility, and user satisfaction refer to research conducted

**Table 1.** Path coefficient results.

	Original Sample	T Statistics	P Values	Description
H1: X1 > Y	0.401	3.849	0.000	Accepted
H2: X2 > Y	0.257	2.255	0.025	Accepted
H3: X3 > Y	0.251	2.130	0.034	Accepted
H4: X4 > Y	-0.050	0.881	0.379	Not Accepted
H5: X5 > Y	0.092	1.151	0.250	Not Accepted
H6: X6 > Y	-0.018	0.267	0.790	Not Accepted

Description: X<sub>1</sub>: Utility; X<sub>2</sub>: Reliability; X<sub>3</sub>: Efficiency; X<sub>4</sub>: Customization; X<sub>5</sub>: Flexibility; X<sub>6</sub>: Risk; Y: User Satisfaction.

by Horan et al. [2]. While the indicators used to measure user risk refers to research conducted by Osman et al. [6].

### 3 Findings

SmartPLS testing uses two types of evaluation, the evaluation of the outer model and the inner model. Evaluation of the outer model is used to test its validity and reliability. After passing the validity and reliability test, the next step is to evaluate the inner model. The parameters used to evaluate the inner models are R<sup>2</sup> and path. The result of R<sup>2</sup> is 0.745. This value indicates that the six exogenous variables in this study can affect endogenous variables by 75%. In contrast, the other 25% means that other variables are not used in this study which can affect the user satisfaction variable. Here is the result of the path (Table 1).

### 4 Discussion

In this study, six hypotheses were tested to investigate the factors affecting user satisfaction with the Malang City Online Local Tax Application. The first hypothesis states that utility affects user satisfaction with the Malang City Online Local Tax Application. This hypotheses are accepted. It means that the higher the utility, the higher the user satisfaction with the Malang City Online Local Tax Application. The results of this study indicate that users feel that the Malang City Online Regional Tax Application is easy to use and can run well, so users feel satisfied. This study also succeeded in supporting previous research conducted by Horan and Abhichandani [3], Alias et al. [5] and Ahmed et al. [4].

The second hypothesis states that reliability affects user satisfaction with the Malang City Online Local Tax Application. The second hypothesis is accepted. It means that the higher the reliability, the higher the user satisfaction with the Malang City Online Regional Tax Application. The results of this study support previous research conducted by Ahmed et al. [4], who found that reliability affected user satisfaction.

The third hypothesis states that efficiency affects user satisfaction with the Malang City Online Local Tax Application. Efficiency in EGOVSAT is a test of accessibility, feature organization, and information available on the website [2, 3]. The third hypothesis is accepted. It means that the higher the efficiency, the higher the user satisfaction with the Malang City Online Tax Application. This study supports the results of research conducted by Horan and Abhichandani [3], Alias et al. [5] and Ahmed et al. [4].

The fourth Hypothesis states that Customization affects user satisfaction with the Malang City Online Local Tax Application. Customization in EGOVSAT is a construct used to examine the customizability offered to customers in both method access and the information content [2]. This Hypotheses is not accepted. This proves that hypothesis four (H4) is not accepted. This study's results have yet to confirm the EGOVSAT theory, which states that Customization is a factor that affects user satisfaction in accessing an e-government service. In this study, it can be seen that the Malang City Online Regional Tax Application needs to present a method of access and use of services that can be arranged and adapted to the wishes and goals of the user. This is because the Malang City Online Regional Tax Application is currently only devoted to checking and paying local taxes (E-SPPT and E-BPHTB), no other things. This study supports previous research by Herlina et al. [10], which shows that Customization has no significant effect on user satisfaction. On the other hand, this study does not support previous research conducted by Horan and Abhichandani [3], Alias et al. [5] and Ahmed et al. [4], who found that Customization had a significant positive effect on user satisfaction.

The fifth hypothesis states that flexibility affects user satisfaction with the Malang City Online Local Tax Application. The fifth hypotheses are not accepted. The results of this study prove that flexibility does not affect user satisfaction with the Malang City Online Regional Tax Application. This study's results have yet to confirm the EGOVSAT theory, which states that flexibility is a factor that affects user satisfaction in accessing an e-government service. In this study, it can be seen that the Malang City Online Regional Tax Application needs a more flexible aspect. It means that users cannot do other things apart from checking and paying local taxes that have been listed. This can happen because the Malang City Online Regional Tax Application only focuses on making local tax payments. This study supports Horan and Abhichandani [3] because the flexibility variable does not affect user satisfaction. On the other hand, this study cannot support the research conducted by Alias et al. [5] and Ahmed et al. [4]. They found that flexibility had a significant positive effect on user satisfaction.

The sixth hypothesis states that risk affects user satisfaction with the Malang City Online Local Tax Application. The sixth hypothesis not accepted. This indicates that the risk has a negligible impact on customer satisfaction. User satisfaction with the Malang City Online Regional Tax Application is higher the lesser the risk. The findings of this study do not concur with earlier work by Osman. This is due to the fact that the majority of respondents are still concerned about the misuse of personal information collected through local tax applications.

The hypothesis was not supported by the findings of the respondents' answers distribution. The study revealed that users are still uncertain about the level of risk associated with the Malang City Online Regional Tax Application, which indicates that their satisfaction cannot be measured by their knowledge about the risks of the application.

These results contradict the previous research conducted by Al-Yafi et al. [11], which concluded that risk negatively affects user satisfaction.

## 5 Conclusion

This study aims to determine the determinants of user satisfaction with local tax online applications with the Egovsat approach and its modifications. This research was conducted mainly in the city of Malang. The results of this study indicate that utility, reliability, and efficiency affect the satisfaction of users of the Online Regional Tax Application in Malang City. Meanwhile, customization, flexibility, and risk do not affect user satisfaction with the Malang City Online Local Tax Application. The limitation of this research is using a small number of samples. Therefore, further research can increase the number of samples. Based on the results of this study, the researchers gave recommendations to the Malang City Regional Revenue Agency to evaluate the Malang City Regional Tax application, primarily related to user data security.

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