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The Effect of User Satisfaction of the Custom Excise Information System & Automation (CEISA) System on User Trust to Improve Customs Services

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Abstract
CEISA can facilitate services and supervision by Customs officers in terms of customs and excise. However, there are still DGCE offices that develop applications independently, which means they are not integrated with CEISA. This study aims to apply the EUCS technique at one of the Type A Customs and Excise Supervision and Service Offices in Indonesia to analyse the degree of user trust in the CEISA system. This study employs a quantitative design and utilizes the End-User Satisfaction (EUS) technique to assess user trust in the CEISA system. By distributing surveys, this research employs quantitative approaches to gather data from 100 respondents, namely employees of the Type A Customs and Excise Supervision and Service Office in Indonesia, who are end-users of the CEISA system. The SPSS software was used to analyse the data using multiple linear regression. The findings demonstrated that Content, Format, Ease of use, and Timeliness in the CEISA system have a significant influence on user trust. In contrast, Accuracy in the CEISA system does not have a significant influence on user trust.
Keywords: User Satisfaction, User Trust, End User Satisfaction

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INTRODUCTION

With technological advances, various industrial and trade sectors continue to develop, especially in the fields of customs and excise (Saqmiyardi et al., 2020). A government institution, which is under the Ministry of Finance and has various tasks, one of which is to provide services to the public, is the Directorate General of Customs and Excise (DGCE). To achieve a sophisticated, measurable, secure, and easily accessible service, DGCE developed an application system utilizing a platform that meets the above needs (Adiwinoto et al., 2020). The application system in question is CEISA.

An application system that provides information and has the aim of facilitating services and supervision by Customs officers in terms of customs and excise is the definition of Customs Excise Information System and Automation (CEISA). In general, CEISA is a computer-based application program used for management purposes in customs activities in Indonesia, featuring several modules designed to manage various fields (Saqmiyardi et al., 2020).

The successful implementation of a system that has a significant impact on operational efficiency and effectiveness within a particular company will provide users with satisfaction. However, the development of technology in this context is increasingly fierce business competition, and user confidence is the primary key to the system's success.

User trust, according to Santouridis (2017), is the belief of one party in another regarding their contribution and the belief that this action is necessary and has a positive influence on both parties. Therefore, it can be concluded that user trust is the expectation of users and organisations related to agreements that aim to realise the expected goals and produce positive contributions for both information system service providers and information system users. If the information system is of high quality and can provide trust to its users, then the system is reliable. To determine the quality, it is necessary to assess whether users accept the system by conducting an evaluation. Therefore, analysing user trust in CEISA is an important step in understanding how the system is accepted and used by its users.

The issue of user trust is based on the findings of interviews which have been conducted by researchers, where the findings of the interviews according to Apri, who is one of the employees organising the CEISA system at One of Type A Customs and Excise Supervision and Service Office in Indonesia, argue that some DGCE offices still develop applications independently, which means they develop applications that are not integrated with CEISA. Evaluation is necessary to determine the success of the implemented system.

One of the many methods available today to measure system user trust is EUCS (End User Computing Satisfaction). The technique is carried out by comparing system reality with user expectations in measuring the level of system user confidence (Doll & Torkzadeh, 1988). Accuracy, Format, Ease of Use, Content, and Timeliness are five components that must be considered when developing information systems. Previous research by Aulani (2016) shows that the application of the system has its weaknesses and advantages. This study aims to assess and analyze the credibility of the CEISA system, which has been in use since 2012 to enhance customs services at the Tanjung Perak Customs Supervision and Service Office.

Therefore, researchers applied the EUCS technique to evaluate user satisfaction with the CEISA system in this era of increasingly sophisticated technological development, where the system must have supporting information and be constantly updated within a specific period of time. the EUCS model is used because it has been defined as a valid and reliable model to be applied to computer applications and information systems (Doll et al., 2004). Within the EUCS model itself, a measurement model is employed to identify the most suitable and appropriate EUCS instrument, comprising five first-order factors and One Second-Order Factor. Measurements conducted using the EUCS model, which utilizes 12 measurement items or questions, have evaluated each of the five EUCS factors above through 12 question items to

measure the satisfaction of end-users of information systems. The 12 items, as conducted by Doll et al. (2004) in their study, also used separate criteria questions to determine the overall satisfaction of end users.

Based on the previous explanation, the problem formulation in this study is how to analyse the level of user trust in the CEISA system using the EUCS technique at one of the Type A Customs and Excise Supervision and Service Offices in Indonesia. Which aims to measure and determine the level of user trust in the CEISA system. The theoretical benefit is to provide an understanding of user trust in information systems, particularly CEISA, and to serve as the basis for developing more effective information systems. The expected practical benefit is to serve as a guide and evaluation for one of the Type A Customs and Excise Supervision and Service Offices in Indonesia, thereby improving the quality and performance of CEISA.

METHOD

The research approach uses a quantitative method. The results are displayed in the form of numbers, showing the value for the variable or quantity being studied. This approach is used to examine the effect of each component of EUCS on CEISA User Trust. The data sources used in this study are primary data collected through questionnaires, as well as secondary data obtained from previous research and literature study results. The data collection technique utilizes a questionnaire with Qualtrics-form questions and is distributed to respondents as part of a research sample.

The population of this study is the employees of the Customs and Excise Supervision and Service Office of Customs and Excise Type A Marunda North Jakarta consisting of 5 divisions consisting of Data Processing and Document Administration, Information Counseling and Services, Customs and Excise Services, Enforcement and Investigation, Treasury during the period 01 September 2023 to 01 April 2024 who use CEISA. The sampling technique is non-probability, with the method of determining the sample being saturated sampling, which involves using all members of the population when the population is relatively small (Sugiyono, 2019). So that all members of the population to be studied, namely 100 employees of the Customs and Excise Supervision and Service Office of Customs Type A Marunda North Jakarta, are using CEISA.

In this study, the independent variables are Contents (X1), Accuracy (X2), Format (X3), Ease of Use (X4), and Timeliness (X5). The dependent variable is User Trust (Y). The score for each variable and indicator will be given on a five-point Likert scale, where 1 point indicates 'almost never' and 5 points indicate 'almost always'. To measure the user trust variable, five question items are used. For the Content variable, four question items are used. For the Ease of Use, Format, Accuracy, and Time variables, two question items are used for each.

To analyze the data, multiple linear regression was used in SPSS. The validity test of the questionnaire in this study was conducted to determine its validity. The reliability test was conducted by analyzing the overall data of the questionnaire using the SPSS program and the Cronbach's Alpha (α) statistical test.

RESULTS AND DISCUSSION

Testing of the research was conducted using the SPSS programme. The results show that each valid question item has a correlation value of> 0.05, as seen in Table 1.

Table 1. Validity Test Results

No.	Variables	Grain	Value r_{count}	Value r_{table}	Description
X1	Content	C1	0.794	0.195	Valid
		C2	0.648	0.195	Valid

No.	Variables	Grain	Value r_{count}	Value r_{table}	Description
X2	Accuracy	C3	0.708	0.195	Valid
		C4	0.730	0.195	Valid
		A1	0.707	0.195	Valid
		A2	0.710	0.195	Valid
X3	Format	F1	0.729	0.195	Valid
		F2	0.809	0.195	Valid
X4	Ease Of Use	EUS1	0.858	0.195	Valid
		EUS2	0.860	0.195	Valid
X5	Timeliness	T1	0.764	0.195	Valid
		T2	0.845	0.195	Valid
Y	User Trust	UT1	0.731	0.195	Valid
		UT2	0.664	0.195	Valid
		UT3	0.615	0.195	Valid
		UT4	0.683	0.195	Valid
		UT5	0.585	0.195	Valid

Source: Data processed, 2024

The findings of the research validity test indicate that the questionnaire is entirely valid, as the results of the calculated r score exceed the r table value of 0.195.

Reliability testing is used to evaluate the consistency of respondents' answers to the parts of the questionnaire that are already valid. The variable is declared reliable if it gets a value that exceeds 0.60 and vice versa.

Table 2. Reliability Test Results

No.	Variables	Cronbach Alpha Value	Description
X1	Content	0.692	Reliable
X2	Accuracy	0.826	Reliable
X3	Format	0.754	Reliable
X4	Ease Of Use	0.644	Reliable
X5	Timeliness	0.784	Reliable
Y	User Trust	0.669	Reliable

Source: Data processed, 2024

The results Table 2, shows that based on the Cronbach Alpha score, it is known that five variables show a value> 0.60. So it is stated that all variables are reliable.

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parametersa,b	Mean	.0000000
	Std. Deviation	1.49152597
Most Extreme Differences	Absolute	.039
	Positive	.039
	Negative	-.031
Test Statistic		.039
Asymp. Sig. (2-tailed)c		.200d
Monte Carlo Sig. (2-tailed)e	Sig.	.971

			Unstandardized Residual
	99% Confidence Interval	Lower Bound	.967
		Upper Bound	.976

Source: Data processed, 2024

Following

Table **3**, the data shows that the score of the normality test is 0.971, which indicates that the significance level in the normality test is > 0.05. Thus, it is concluded that the data collected from this study are normally distributed.

Table 4. Multicollinearity Test Results

No.	Variable	Tolerance	VIF	Description
X1	Content	.699	1.430	No multicollinearity
X2	Accuracy	.950	1.053	No multicollinearity
X3	Format	.656	1.525	No multicollinearity
X4	Ease Of Use	.702	1.424	No multicollinearity
X5	Timeliness	.916	1.091	No multicollinearity

Source: Data processed, 2024

The five variables have tolerance values exceeding 10, indicating that the linear regression model is not experiencing collinearity problems. Thus, the results in Table 4 indicate that there is no multicollinearity among the independent variables, suggesting that the linear regression model is suitable.

Table 5. Heteroscedasticity Test Results - Glejser Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.315	.905		2.558	.012
	Content (X1)	-.044	.056	-.095	-.777	.439
	Accuracy (X2)	-.070	.084	-.087	-.833	.407
	Format (X3)	.021	.102	.026	.209	.835
	Ease of Use (X4)	-.004	.086	-.006	-.049	.961
	Timeliness (X5)	-.039	.078	-.054	-.503	.616

Source: Data processed, 2024

Based on

Table **5** , the data shows the Glejser heteroscedasticity test. The Sig. score for each variable exceeds 0.05; thus, in the regression model of this study, there is no heteroscedasticity.

Table 6. Multiple Linear Regression Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.500	1.527		1.637	.105
	Content (X1)	.475	.095	.389	4.979	.000
	Accuracy (X2)	.139	.143	.065	.972	.334
	Format (X3)	1.026	.189	.481	5.424	.000
	Ease of Use (X4)	.902	.145	.485	6.222	.000

Timeliness (X5)	.426	.189	.221	2.247	.027

According to the results of
Table **6** , the regression equation below is obtained:

$$Y = 2.500 + 0.475 (X1) + 0.139 (X2) + 1.026 (X3) + 0.902 (X4) + 0.426 (X5)$$

The constant score (α) has a positive score of 2.500 if the model is interpreted. The positive sign shows an equal impact between the independent variables and the dependent variable. For example, if all independent variables, including X1, X2, X3, X4, and X5, have a value of 0, the average Y is 2,500. The Content (X1) regression coefficient of 0.475, with a positive sign, indicates that the influence of stronger content tends to increase user trust. In comparison, the influence of weaker content tends to decrease user trust. The Accuracy (X2) regression coefficient is 0.139, indicating that a positive coefficient sign suggests a more substantial content influence tends to increase user trust. Conversely, the Format (X3) regression coefficient value is 1.026, where the positive coefficient sign indicates that a more substantial format influence tends to result in higher user trust. In comparison, a weaker format influence tends to result in lower user trust. The Ease of Use (X4) regression coefficient is 0.902, indicating that a stronger influence of Ease of Use tends to increase user trust, while a weaker influence tends to decrease it. With a positive coefficient sign, the Timeliness (X5) regression coefficient value is 0.426. This means that a more substantial influence of time tends to increase user trust, while a weaker influence of time tends to decrease user trust.

T-testing is a method used to test the regression coefficient in a particular way, which helps determine whether the independent variable has a significant impact on the dependent variable.

Table 7. T Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.500	1.527		1.637	.105
	Content	.475	.095	.389	4.979	.000
	Accuracy	.139	.143	.065	.972	.334
	Format	1.026	.189	.481	5.424	.000
	Ease Of Use	.902	.145	.485	6.222	.000
	Timeliness	.426	.189	.221	2.247	.027

a. Dependent Variable: User Trust

Source: Data processed, 2024

Data analysis:

a. The Content variable (X1) is known to have an impact on User Trust, as evidenced by the significance score of 0.000 (<0.05).
b. The Accuracy variable (X2) is known to have no impact on User Trust, as evidenced by the significance score of 0.334 (>0.05).
c. The Format variable (X3) is known to have an impact on User Trust, as indicated by a significance score of 0.000 (<0.05).
d. The Ease of Use (X4) variable is known to have an impact on User Trust, as evidenced by the significance score of 0.000 (<0.05).
e. The timeliness variable (X5) is known to have an impact on User Trust, as indicated by a significance value of 0.027 (< 0.05).

Table 8. F Test Results

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	329.320	5	65.864	28.111	.000b
	Residual	220.240	94	2.343		
	Total	549.560	99			

Source: Data processed, 2024

Table **8** above, the significance score of the F statistical test is 0.000 and the Fcount score is 28.111, which indicates the variables Content, Accuracy, Format, Ease of use, and Timeliness have an impact on User Trust so that the independent variables include Accuracy, Content, Format, Ease of use, and Timeliness, jointly influencing the dependent variable, namely User Trust.

Table 9. Test Results of the Coefficient of Determination (R2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774a	.599	.578	1.531

Source: Data processed, 2024

Table 9 shows the Adjusted R Square value of 0.578, which shows that the variables Content (X1), Accuracy (X2), Format (X3), Ease of Use (X4), Timeliness (X5) have an impact of 57.8% of the variation in changes in the User Trust (Y) variable. While the other 42.2% is due to other variables or components outside this study.

The findings of the linear regression analysis show that H1 is accepted; the obtained Content has a significant impact on the trust of CEISA system users. This result is indicated by the tcount value of 7.750, which exceeds the ttable value, which is 1.986, so that the tcount value exceeds the ttable, or 7.750 is greater than 1.986, and the significant value is 0.000, which is a score less than 0.05. According to a study conducted by Aji & Rachmawati (2021), content variables affect user trust in the LinkAJa application. According to Rayansa et al. (2022), users will feel more satisfied with the CEISA application if it is clear, comprehensive, easy to understand, and meets their needs. So that user trust can increase.

The findings of the linear regression analysis indicate that H2 is rejected, suggesting that Accuracy does not have a significant impact on the trust of CEISA system users. This result is indicated by the t-count value of 0.022, which is less than the t-table value of 1.986, and the significant value of 0.825, which exceeds 0.05. This is because the information obtained from CEISA is not accurate and does not match the user's questions. A previous study by Aji & Rachmawati (2021) also found that the accuracy factor did not affect user satisfaction with the LinkAja system. Although the system's shortcomings are still new to the public, they tend to understand it and continue to use it in the hope that improvements will be made.

The findings of the linear regression analysis show that H3 is approved, which means that Format has a significant impact on User Trust of the CEISA system. This result is indicated by the t-count value of 5.424, which exceeds the t-table value of 1.986, and a significant score of 0.000, which is less than 0.05. The assessment results are also in line with research by Setiawan & Novita (2021), which found that the Format variable significantly affects the User Trust variable. According to respondents' feedback, most users are satisfied with the system's appearance because the KAI Access application meets their expectations. Trust in the website refers to the

website's activity towards users in accessing information on a website or information system. Users of information systems or websites are expected to be helped by overcoming problems related to technology or information systems (Rayansa et al., 2022)

The findings of the linear regression analysis indicate that H4 is supported, as Ease of Use has a significant impact on the trust of CEISA system users. This result is indicated by the t-count value of 9.118, which exceeds the t-table value of 1.986, and a significant score of 0.000, indicating a p-value of less than 0.05. The results of the analysis are based on the previous study by Darwati (2022), which shows that the Ease of Use variable in the OVO application affects user trust. In other words, if the development of the OVO application increases ease of use, the application will positively impact user trust, as user trust and information system user satisfaction are crucial factors in determining success when users are directly involved in the use of an information system (Rayansa et al., 2022).

The findings of the linear regression analysis indicate that H5 is accepted, with timeliness having a significant impact on CEISA system user trust. This result is indicated by the t-count value of 2.247, which exceeds the t-table value of 1.986, and a significant p-value of 0.027, which is less than 0.05. Saputra & Kurniadi's study (2019) shows that the Timeliness variable has a significant effect on the user satisfaction variable of the IAIN Bukittinggi E-Campus information system. In other words, the Timeliness variable in the overall way has a stronger relationship, indicating that the trust of IAIN Bukittinggi E-Campus users will increase.

CONCLUSION

The study's findings were based on an analysis of user confidence in the CEISA system using the EUCS method at one of the Type A Customs and Excise Supervision and Service Offices in Indonesia. Then the conclusion is obtained that the content in the CEISA system has a significant impact on user trust. Accuracy in the CEISA system does not affect user trust. The format of the CEISA system has a significant impact on user trust. The ease of use of the CEISA system has a significant impact on user trust. Timeliness in the CEISA system has a significant effect on user trust.

Based on the research findings and conclusions mentioned above, the researcher suggests that the CEISA system developer should focus on accuracy in developing the system. The accuracy of the CEISA system still needs improvement, particularly in ensuring that the information presented is precise and reliable for users. Users often encounter information discrepancies, which can impede the workflow. Therefore, developers are expected to enhance the accuracy of data in the CEISA system, thereby providing users with greater confidence and supporting optimal work efficiency.

The limitations of this research include the measurement of user trust through the User Trust in the CEISA system using the EUCS method. Suggestions from researchers for future research if conducting research on the same topic, namely about the analysis of user trust in the CEISA system, but using different methods and in different cities, so that it can be used as a comparison material.

The researcher's suggestion to the CEISA system developer is to conduct development that focuses more on accuracy. Currently, the accuracy of the CEISA system still needs to be improved, especially in ensuring that the information presented is precise and reliable for users. Users often experience information discrepancies, which can hinder the work process. Therefore, developers are expected to improve the accuracy of data in the CEISA system, so as to provide more confidence to users and support optimal work efficiency.

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