



The Effect Of User Satisfaction Of The Custom Excise Information System & Automation (CEISA) System On User Trust At KPPBC Marunda North Jakarta

Sri Zuliarnii*, MaharaniZ

^{1,2}Politeknik Negeri Batam, Batam, Indonesia

ARTICLE INFORMATION	ABSTRACT
<p>Article History: Accepted: Filled by the JBM team Revised: Filled in by the JBM team Approved: Filled by the JBM team</p> <p>Keywords:</p> <p>*Correspondence Author: ¹sri.zuliarni@polibatam.ac.id ²mhrnni14@gmail.com</p> <p>DOI: Filled by the JBM team</p>	<p>CEISA can facilitate services and supervision by Customs officers in terms of customs and excise, but there are still DGCE offices that develop applications independently, which means they are not integrated with CEISA. The aim of this study is to apply the EUCS technique at KPPBC TMP A Marunda, North Jakarta, to analyse the degree of user trust in the CEISA system. This study uses the End User Satisfaction (EUCS) technique to gauge user trust in the CEISA system. By distributing surveys, this research employs quantitative approaches to 100 respondents, namely KPPBC TMP A Marunda North Jakarta office employees who use 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. While Accuracy in the CEISA system does not have a significant influence on user trust.</p>

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 which 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 using a platform that can meet 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 that is used for management purposes in a customs activity in Indonesia and has several features and 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 in a particular company will provide satisfaction to users who use this system. However, the development of technology in this context is increasingly fierce business competition, user confidence is the main key in the success of the system.

User trust according to I.Santouridis (2017) is the belief of one party to another in terms of its contribution and the belief that this action is a necessity and has a positive influence on both parties. So, it can be concluded that user trust is the expectation of users and organisations related to agreements 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 find out how good the quality is, it is necessary to prove whether the system is accepted by users 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 KPPBC TMP A Marunda North Jakarta, argue that some DGCE offices still develop applications independently, which means they develop applications that are not integrated with CEISA. Evaluation is needed to determine how successful the implemented system is.

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 find and analyse the credibility of the CEISA system, which has been used since 2012 to grow 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 age of increasingly sophisticated technological development, where the system must have supporting information and must always be updated within a certain period of time.

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 KPPBC TMP A Marunda North Jakarta. 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, especially CEISA and become the basis for developing better information systems. Then the expected practical benefit is to be a guide and evaluation for KPPBC TMP A Marunda North Jakarta to improve the quality and performance of CEISA.

The following are the hypotheses of this study:

H1 : There is a significant influence between Content on the level of user trust in CEISA.

H2 : There is a significant influence between accuracy on the level of user trust in CEISA.

H3 : There is a significant influence between Format (form) on the level of user trust in CEISA.

H4 : There is a significant influence between Ease of use on the level of user trust in CEISA.

H5 : There is a significant influence between Timeliness on the level of user trust in CEISA.

METHOD

The research approach uses a quantitative method. The results are displayed in the form of numbers that show 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 where applied in this study are primary data collected by questionnaires, as well as secondary data which comes from previous research and literature study results. data collection technique uses a questionnaire with Qualtrics form questions and is distributed to respondents as 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

nonprobability with the method of determining the sample is saturated sampling, that is, all members of the population can be used for the sample 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 where 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 of each variable and indicator will be given with a five-point Likert scale, where one point indicates almost never and five points indicate almost always. To measure the user trust variable, five question items are used; for the Content variable, four question items are used; and for the Ease of Use, Format, Accuracy, and Time variables, two question items are used each.

In order to analyse the data, multiple linear regression using SPSS was used. The validity test of the questionnaire in this study was conducted to determine its validity; the reliability test was conducted by testing the overall data of the questionnaire using the SPSS programme and the Cronbach 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
		C3	0.708	0.195	Valid
		C4	0.730	0.195	Valid
X2	Accuracy	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 show that the questionnaire is entirely valid, considered valid because the results of the calculated r score exceed the r table, where the r table score is 0.195.

Reliability testing is used to evaluate how consistent the respondents' answers are 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 Parameters ^{a,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
	Sig.	.971
Monte Carlo Sig. (2-tailed) ^e	99% Confidence Interval	Lower Bound
		Upper Bound
		.976

Source: Data processed, 2024

In accordance with 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 is 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, which means that the linear regression model does not experience collinearity problems. Thus, the results of Table 4 show that there is no multicollinearity in the independent variables which means that the linear regression model is good.

Table 5. Heteroscedasticity Test Results - Glejser Test

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	(Constant)	2.315	.905		
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 has a value exceeding 0.05, thus in the regression model of this study there is no heteroscedasticity.

Table 6. Multiple Linear Regression Test Results

Model	Unstandardized Coefficients ^a		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	(Constant)	2.500	1.527		
Content (X1)	.475	.095	.389	4.979	.000
Accuracy (X2)	.139	.143	.065	.972	.334
Format (X3)	.094	.172	.044	.546	.586
Ease of Use (X4)	.902	.145	.485	6.222	.000
Timeliness (X5)	.075	.131	.039	.571	.569

Source: Data processed, 2024

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

$$Y = 2.500 + 0.475 (X1) + 0.139 (X2) + 0.094 (X3) + 0.902 (X4) + 0.075 (X5)$$

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 coefficient sign shows that the influence of stronger content tends to increase user trust, while the influence of weaker content tends to reduce user trust. The Accuracy (X2) regression coefficient is 0.139 where the positive coefficient sign shows that a stronger content influence tends to increase user trust. Conversely, the Format (X3) regression coefficient value is 0.094 where the positive coefficient sign indicates that a stronger format influence tends to have higher user trust, while a weaker format influence tends to have lower user trust. The Ease of Use (X4) regression coefficient is 0.902 where the positive coefficient sign indicates that a stronger Ease of Use influence tends to increase user trust, while a weaker Ease of Use influence tends to decrease user trust. With a positive coefficient sign, the Timeliness (X5) regression coefficient value is 0.075. This means that a stronger influence of time tends to increase user trust, or user trust, while a weaker influence of time tends to decrease user trust.

T testing is testing the regression coefficient in a persial way which is used in determining 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:

- The Content variable (X₁) is known to have an impact on User Trust, as evidenced by the significance score of 0.000 (<0.05).
- The Accuracy variable (X₂) is known to have no impact on User Trust, as evidenced by the significance score of 0.334 (>0.05).
- The Format variable (X₃) is known to have an impact on User Trust, which is shown through a significance score of 0.000 (<0.05).
- 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).
- Timeliness variable (X₅) is known to have an impact on User Trust, which is 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, shows 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, Timeliness have an impact on User Trust. So that the independent variables include Accuracy, Content, Format, Ease of use, Timeliness by 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.

H1: There is a significant impact of Content variable (X₁) on User Trust (Y) of CEISA system.

The findings of the linear regression analysis show that H1 is accepted, 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 using the CEISA application if it is clear, more complete, easy to understand, and suits their needs. So that user trust can increase.

H2: There is no significant impact of Accuracy variable (X₂) on User Trust (Y) of CEISA system.

The findings of the linear regression analysis show that H2 is rejected, which means that Accuracy does not have a significant impact on the trust of CEISA system users. This result is indicated by the tcount value of 0.022, which is less than the ttable value, which is 1.986 and the significant value of 0.825, which is a value that 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 shortcomings of the system are still new to the public, they tend to understand it and continue to use it in the hope that there will be improvements.

H3: There is a significant impact of Format variable (X₃) on User Trust (Y) of CEISA system.

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 tcount value of 5.424, which exceeds the ttable value, which is 1.986 and a significant score of 0.000, which is a score less than 0.05. The assessment results are also in line with research Setiawan & Novita (2021), which found that the Format variable significantly affects the User Trust variable. According to respondents' responses, most users are satisfied with the appearance of the system because the appearance of the KAI Access application meets user expectations. And trust in the website is 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)

H4 : There is a significant impact of the Ease Of Use (X₄) variable on User Trust (Y) of the CEISA system.

The findings of the linear regression analysis show that H4 is accepted, where Ease of Use significantly affects the trust of CEISA system users. This result is indicated by the tcount value of 9.118, exceeding the ttable value, which is 1.986 and a significant score of 0.000, which is a score less than 0.05. The results of the analysis are in accordance with the previous study by Darwati (2022) which shows 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 affect user trust, because user trust and information system user satisfaction are important factors in determining success where users are directly involved in the use of an information system (Rayansa et al., 2022).

H5 : There is a significant impact of Timeliness variable (X₅) on User Trust (Y) of CEISA system.

The findings of the linear regression analysis show that H₅ is accepted, where Timeliness has a significant impact on CEISA system user trust. This result is indicated by the tcount value of 2.247, exceeding the ttable value, which is 1.986 and a significant value of 0.027, which is a value 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 with the overall way has a more relationship, indicating that the trust of users of the IAIN Bukittinggi E-Campus information system will increase.

CONCLUSION

Conclusion

The findings of the study where it has been carried out on the analysis of user confidence in the CEISA system with the EUCS method at KPPBC TMP A Marunda North Jakarta. Then the conclusion is obtained, that:

1. Content in the CEISA system has a significant effect on user trust.
2. Accuracy in the CEISA system has no effect on user trust.
3. The format of the CEISA system has a significant impact on user trust.
4. Ease of use of the CEISA system has a significant effect on user trust.
5. 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 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.

Limitations

The limitations of this research include user trust measured through 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.

Research Implications

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.

REFERENCES

- Abdullah, K., Jannah, M., Aiman, U., Hasda, S., Fadilla, Z., Taqwin, Masita, Ardiawan, K. N., & Sari., M. E. (2021). Metodologi Penelitian Kuantitatif Metodologi Penelitian Kuantitatif. In *Metodologi Penelitian Kuantitatif* (Issue May).
- Adiwinoto, B., Pradana, H. A., Fitriyanti, Marna, Alkodri, A. A., Yanuarti, E., & Raya, A. M. (2020). Evaluation of CEISA Application Information System at KPPBC Type Madya Pabean C. *2020 8th International Conference on Cyber and IT Service Management, CITSM 2020*. <https://doi.org/10.1109/CITSM50537.2020.9268844>
- Darwati, Lilis, F. (2022). Analisis Pengukuran Tingkat Kepuasan Pengguna Aplikasi OVO Menggunakan Metode End User Computing Satisfaction (EUCS). *JUST IT: Jurnal Sistem Informasi, Teknologi Informasi Dan Komputer*, 12(2), 34–42. <https://jurnal.umj.ac.id/index.php/just-it/index>

- Doll, W. J., Deng, X., Raghunathan, T. S., Torkzadeh, G., & Xia, W. (2004). The meaning and measurement of user satisfaction: A multigroup invariance analysis of the end-user computing satisfaction instrument. *Journal of Management Information Systems*, 21(1), 227–262. <https://doi.org/10.1080/07421222.2004.11045789>
- Doll, W. J., & Torkzadeh, G. (1988). The Measurement of End-User Computing Satisfaction End-User Satisfaction The Measurement of End-User Computing Satisfaction Professor of MIS and Strategic Management The University of Toledo Gholamreza Torkzadeh Assistant Professor of Information Systems. *MIS Quarterly*, 12(2), 259–274. <http://www.jstor.org/stable/2488510> <http://www.jstor.org/page/info/about/policies/terms.jsp> <http://www.jstor.org>
- I. Santouridis and A. Veraki. (2017). *Customer relationship management and customer satisfaction: the mediating role of relationship quality*,” *Total Qual. Manag. Bus. Excell.*, vol. 28, no. 9–10, pp. 1122–1133, 2017.
- Purwandani, I. (2018). Issn: 2461-0690 Issn: 2461-0690. *IJSE – Indonesian Journal on Software Engineering Implementasi*, 4(2), 6–13.
- Purwaning Astuti, I., & Juniwati Ayuningtyas, F. (2018). Pengaruh Ekspor Dan Impor Terhadap Pertumbuhan Ekonomi Di Indonesia. *Jurnal Ekonomi & Studi Pembangunan*, 19(1). <https://doi.org/10.18196/jesp.19.1.3836>
- Rayansa, W. R., Setiawan, E. B., Ruminda, M., Ricardianto, P., Wardhana, A., & Adi, E. N. (2022). The Implementation of Customs-Excise Information System and Automation Application in Logistic Companies at Soekarno-Hatta Airport, Indonesia. *International Journal of Scientific Engineering and Science*, 6(10), 28–35. <http://ijses.com/>
- Saputra, A., & Kurniadi, D. (2019). Analisis Kepuasan Pengguna Sistem Informasi E-Campus Di Iain Bukittinggi Menggunakan Metode Eucs. *Voteteknika (Vocational Teknik Elektronika Dan Informatika)*, 7(3), 58. <https://doi.org/10.24036/voteteknika.v7i3.105157>
- Saqmiyardi, Butsianto, S., & Astuti, R. F. (2020). SISTEM INFORMASI INJECT CEISA 4.0 BERBASIS WEB UNTUK MEMBUAT DOKUMEN BEA CUKAI 4.0 (BC 4.0) PADA PT. PATCO ELEKTRONIK TEKNOLOGI DI CIKARANG. *Jurnal Teknologi Pelita Bangsa Vol.12*, 12(1), 1–11.
- Setiawan, H., & Novita, D. (2021). Analisis Kepuasan Pengguna Aplikasi KAI Access Sebagai Media Pemesanan Tiket Kereta Api Menggunakan Metode EUCS. *Jurnal Teknologi Sistem Informasi*, 2(2), 162–175. <https://doi.org/10.35957/jtsi.v2i2.1375>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (2nd ed). In *Data Kualitatif*.
- Wahyu Aji, L., & Ayu Kade Rachmawati, I. K. (2021). Penilaian Kepuasan Dengan Model End User Computing Satisfaction Bagi Pengguna Aplikasi Financial Technology (Studi Kasus Bagi Pengguna Aplikasi Linkaja). *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen TERAKREDITASI SINTA*, 4(3), 620–631. <http://jim.unsyiah.ac.id/ekm>