IJCCS (Indonesian Journal of Computing and Cybernetics Systems)
Vol.18, No.4, October 2024, pp. 453~464
ISSN (print): 1978-1520, ISSN (online): 2460-7258
DOI: https://doi.org/10.22146/ijccs.101004

Analysis User Satisfaction of XYZ Application with End User Computing Satisfaction Method and Delone & Mclean

Qhoiril Aldi Giansyah[1]*, Idria Maita[2], Megawati[3], Febi Nur Salisah[4]
[12345]Department of Information System, Faculty of Science and Technology,
Universitas Islam Negeri Sultan Syarif Kasim, Indonesia
e-mail: *[1]**12050312656@students.uin-suska.ac.id,** [2]idria@uin-suska.ac.id, [3]megawati@uin-suska.ac.id, [4]febinursalisah@uin-suska.ac.id

Abstrak

Teknologi yang berkembang pesat membuat penyedia layanan internet seperti XYZ menyediakan sebuah aplikasi yang menjanjikan kemudahan bagi konsumen dalam melakukan transaksi pembelian pulsa, kuota internet, dan layanan lainnya. Aplikasi ini merupakan salah satu penyedia yang cukup terkenal dan saat ini tengah bersaing ketat dengan penyedia lainnya. Penyedia ini menyasar kalangan anak muda dari segi produk yang cukup bersaing dengan jangkauan yang luas serta harga yang cukup murah bagi kalangan anak muda. Tentunya para pelanggan akan merasa mudah dalam bertransaksi menggunakan aplikasi layanan yang resmi. Penelitian ini menggunakan metode model End User Computing Satisfaction dan model Delone and Mclean dengan 9 variabel penelitian (konten, akurasi, format, kemudahan penggunaan, ketepatan waktu, kualitas sistem, kualitas informasi, kualitas layanan, dan keamanan). Analisis kepuasan pengguna tidak hanya membantu dalam memahami pengalaman pengguna tetapi juga memberikan umpan balik yang berharga untuk perbaikan aplikasi secara berkelanjutan. Dengan mengetahui faktor-faktor yang mempengaruhi kepuasan, pengembang dapat melakukan penyesuaian yang diperlukan untuk meningkatkan kualitas layanan dan pengalaman pengguna secara keseluruhan. Dari sembilan variabel yang termasuk dalam hasil penelitian, hanya dua variabel kualitas layanan dan akurasi yang memiliki pengaruh signifikan secara statistik. Model yang disediakan dalam studi ini memiliki skor Rsquared sebesar 0,792, yang menunjukkan tingkat kepuasan pelanggan yang kuat.

Kata kunci*— EUCS, Delone dan Mclean, Kepuasan Pengguna*

Abstract

Rapidly developing technology has made internet service providers such as XYZ provide an application that promises to make it easy for consumers to make transactions to purchase credit, internet quotas, and other services. This application is one of the well-known providers and is currently competing with other providers. This provider targets young people in terms of products that are quite competitive with a wide range and prices that are quite cheap for young people. Of course, customers will find it easy to transact using an official service application. This research uses the End User Computing Satisfaction model method and the Delone and Mclean model with 9 research variables (content, accuracy, format, ease of use, timeliness, system quality, information quality, service quality, and security). User satisfaction analysis not only helps in understanding the user experience but also provides valuable feedback for continuous improvement of the application. By knowing the factors that affect satisfaction, developers can make the necessary adjustments to improve service quality and the overall user experience. Of the nine variables included in the research results, only the two service quality and accuracy have a statistically significant impact. The model provided in this study has an Rsquared score of 0.792, which indicates a strong level of customer satisfaction.

Keywords— *EUCS, Delone and Mclean, User Satisfaction*

Received October 25th,2024; Revised October 29th, 2024; Accepted October 30th, 2024

1. INTRODUCTION

According to data released by APJII, the predicted growth of internet users in Indonesia is 1.31% until 2024. Robertus Hardy, senior analyst for Mirae Asset Sekuritas Indonesia, stated that users of Telkomsel, Indosat Ooredoo Hutchison, XL Axiata, and Smartfren totalled 346.8 million, comparable to 227.8 million Indonesians, which means there are 124.8 mobile telecommunication service users for every 100 people. One provider that is quite famous and competes with other providers today is XYZ, this provider is targeting young people because in terms of products that are quite competitive with a wide range and prices that are quite cheap for young people. XYZ is a form of application that allows customers to easily perform services using emerging technologies. Some of the XYZ menus include Home, Surprise, Package, Entertainment, and MyXYZ. Home is used as the main screen that contains quick menus and features, including load, transfer, and credit basket. The Sureprize menu provides users with the opportunity to acquire XYZ items.[1] Data from the Google Play Store shows that approximately 50 million people have downloaded the XYZ app with a rating of 4.4. The app has many complaints and unsatisfied user reviews. For example, on 22 March 2024, a Google X user account with 1 star and a review was unable to log in; a Google M user account complained about problems with the app when filling in scanned vouchers that could not be accepted; and a Google Z user account said that the app was difficult to open and took a long time to open. As mentioned above and in other review columns, the app is still facing issues while in use.

XYZ application user satisfaction is a method used to measure the level of satisfaction of XYZ application users by comparing expectations and outputs from the application. According to Delone and McLean (1992), user satisfaction and system usage are interrelated. Doll and Torkzadeh (1988) created an extensively implemented user satisfaction instrument called End User Computing Satisfaction (EUCS). Measurement for user satisfaction with an application system there are two measurement instruments, namely EUC and UIS, where EUCS is more useful [2].In this study, researchers used the user satisfaction measurement method on the XYZ application, namely the EUCS Model and DeLone & McLean.

Researchers used the EUCS model development research model, which was adopted from the DeLone and McLean research model. This is because the EUCS model has been widely used.[3] to evaluate the level of user satisfaction with the campus service information system designed based on the End User Computing Satisfaction model developed by Doll and Torkzadeh in 1988.Further,[4] As a result of the research, most variables contribute reasonably to the prediction of the dependent variable. User satisfaction is strongly influenced by IS quality, which includes information quality, system quality, and service quality.

Quality can be defined through three main aspects: Information quality, system quality, and service quality. Each element needs to be maintained and monitored as it will have an impact on users' convenience and their satisfaction. [5]used 227 people in Oman to predict mobile banking usage. [6]The findings show that service quality and confidence are the main factors that influence customer satisfaction and interest in using the service, which then affects the actual use of mobile banking.

In addition, researchers also added 1 additional variable, namely security in research [7] mentioned that factors related to security also have a positive impact on user satisfaction, so researchers reached the conclusion that system security can also affect application user satisfaction. Security issues have undeniably become an increasing consideration for end users since the early days of internet technology. Although the issue has shown its practical influence on end-user computing satisfaction (EUCS). The issue is very important because if information is accessed by unauthorised people then, its accuracy will be doubtful or may even be misleading.[8]. On the other hand, The hypothesis is accepted because the security variable has a measured t estimate of 3.365 and a relationship coefficient of 0.321. This suggests that meeting needs is positively impacted by security. [9]

In this study, we add the unbound variable of security because security has undeniably become an increasing consideration for end users since the early days of internet technology. Although this issue has shown its practical influence on end-user computing satisfaction, the main contribution of this study is whether end-user computing satisfaction and the delone & clean method have a significant influence between variables that have common stages/methods, namely preparation of research modelling, instrument preparation, data collection, and data analysis.

2. METHODS

This chapter will outline the methods and processes applied in this research. The approach used in this research is quantitative, data will be collected through questionnaires and explain the research process on the XYZ Application case study.

2.1 Research Methodology

The research methodology is the path taken to reach the final stage of the research. The stages of this research are depicted in the following

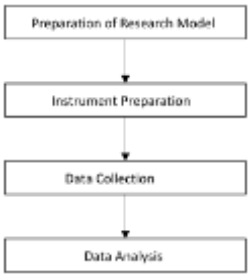

Figure 1. Research Flow

An explanation of each stage in the research flow Figure 1. as follows:

1) Preparation of Research modelling is carried out by designing and developing a model framework, which reflects the relationship between variables. The goal is to identify factors that affect the acceptance and success of information systems;
2) Instrument Preparation Creating tools used to collect research data is part of the instrument setting. This device consists of a question form that is used to measure the variables in the study.
3) Data Collection To gather information, a Google Forms-created questionnaire was employed. On a scale of 1 (strongly disagree) to 5 (strongly agree), each respondent was asked to rate their response.
4) Data Analysis involved checking, deleting, and processing the collected data to generate useful information and formulate conclusions.

2.2 Research Modelling

a. End User Computing Satisfaction (EUCS)

Quoted Eucs is assessing the satisfaction of information system users by comparing expectations and results obtained. EUCS is an overall assessment of information system users based on their experience using the system. According to the EUCS model, the content variable is the main factor assessed to determine user satisfaction with the content of the system application. The accuracy variable also measures the level of user satisfaction by considering aspects of system content. The system content consists of the information generated, its functions, and the modules that can be used by users. Variables that determine the level of user satisfaction with the system interface based on aesthetics and functionality. This satisfaction can be influenced by the information displayed by the system, as well as whether the system interface is attractive and easy to use. One variable that has an indirect impact on how effectively users use the system is the Format variable. Next there is the ease of use variable, which is used to measure how easy the

application is to use and utilise. Finally, the timeliness variable, which is used to measure how satisfied users are with the speed of the application to
display the information they need.[10].

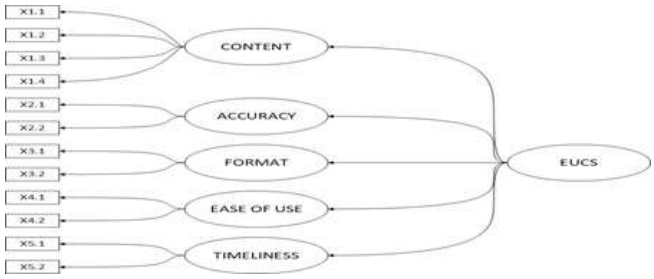

figure 2 EUCS Model

Variable	Indicators
Content	evaluating user satisfaction in relation to the system's data as well as the features and modules that users can access. The content dimension also measures whether the system produces information that meets user needs.
Accuracy	The accuracy of the system is evaluated by the frequency of inaccurate outputs generated during the processing of user input, as well as the occurrence of frequent errors or data processing mistakes..
Format	Measuring user satisfaction in terms of the appearance and aesthetics of the system interface and the format of reports or information generated by the system.
EaseOf Use	Measuring user satisfaction in terms of user comfort or user friendliness in using the system such as the process of entering data, processing data, and finding the information needed.
Timeliness	Measuring user satisfaction involves assessing the system's timeliness in delivering the data and information that users require. A system characterized as timely can be classified as a real-time system, meaning it processes every user request or input immediately, providing quick output without significant delays.

b. DeLone And McLean IS Success Model

The model created by DeLone and McLean 1992 which is considered reliable by researchers. This model is based on process and causal relationships, EUCS Model 3 and shows that usage intention and user loyalty are influenced by platform quality, which requires user satisfaction or continued use[11]. The creation of the DeLone McLean Model was motivated by an understanding of information system processes and their consequences. There are only three parts to this process model: system creation, system usage, and the results of using this system. Each of these steps is a condition, but not sufficient to achieve the desired result. The model developed by DeLone and McLean has received many criticisms and suggestions as research on information system implementation develops.

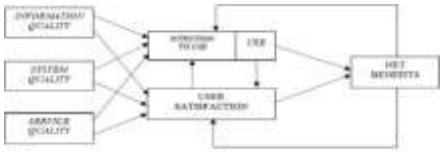

Figure 3 DeLone McLean Model

c. Thinking Framework

Quoted from research conducted by (Hightower et al., 2002) states that the variables developed by the EUCS model on application end users are valid and reliable by studying application end user satisfaction from a computing perspective[12]. Similar research was also conducted by (Aggelidis & Chatzoglou, 2012) concluded that research conducted on hospital information systems in Greece supports the idea that the EUCS model is valid and reliable for assessing the level of end-user satisfaction with the use of IT systems. It is proven that the

variables of content, accuracy, format, and timeliness are crucial in determining the level of end-user satisfaction and the quality of information provided[13].

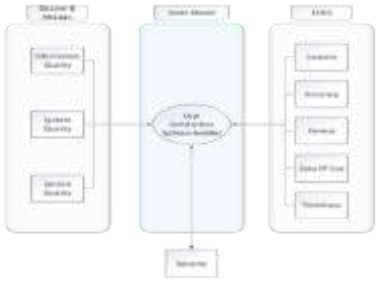

Figure 4 Thinking Framework

Each of these independent variables has a hypothesis that explains the relationship between the independent variable of user satisfaction and the dependent variable. Here's an explanation:

H1: The Effect of Content on User Satisfaction according to Yudistira [14] The analysis reveals that the t-test results indicate a significant impact of the content variable, with a calculated t-value of 3.691, which exceeds the critical t-value of 2.006.[14];

H2: Accuracy Effect on User Satisfaction Research conducted by Febi Nur Salisah (2023) Research on user satisfaction with office systems in Pekanbaru indicates that the accuracy dimension significantly affects user satisfaction. The final analysis shows that the calculated t-value is greater than the table value (2.239 > 1.695). This confirms that the accuracy dimension has a substantial impact on customer satisfaction levels..[15];

H3: The Effect of Format on User Satisfaction Another study by Asih Winantu (2023) In this study, the format variable is deemed satisfactory and significantly influences user satisfaction, as evidenced by an estimation result of 0.231, indicating a positive and meaningful impact of the format on user satisfaction..[16]

H4: The Effect of Ease for Use on User Satisfaction Research by Arif Saputra [17] A study conducted at IAIN Bukittinggi indicates that the ease of use variable, according to the EUCS method, has a significant influence on user satisfaction, accounting for 73.3% of the variance in satisfaction levels with the ECampus information system..;

H5: The Effect of Timeliness on User Satisfaction research by MA Sugandi, [18] The analysis reveals that the significance value for the speed variable is 0.00, which is lower than the alpha level of 0.05, and the t-count of 4.794 exceeds the t-table value of 1.664. This indicates that the speed variable has a significant influence on user satisfaction.;

H6: The effect of Security on User Satisfaction in research Nathania dan Ginting [19] It is observed that customer happiness is enhanced by data security-related factors. This assertion is substantiated by the fact that the security variable exhibits a statistically significant t-estimate of 3.365 and a correlation coefficient of 0.321.[9] Security issues have undeniably become an increasing consideration for end users since the early days of internet technology. Although the issue has shown its practical influence on end-user computing satisfaction (EUCS).

H7: The effect of system quality on user satisfaction research by (Aldholay & Isaac [20]entitled Analysing E Commerce Success using the DeLone and McLean Model, found that based on the results of 110 users, System Quality is said to have an effect on satisfaction;

H8: Influence of Information quality with User Satisfaction factors study by [21] The study reveals that user satisfaction and actual usage are positively influenced by both self-efficacy and overall quality, which includes system, information, and service quality.

H9: The effect of service quality on user satisfaction research by Dewi et al [22] User satisfaction with mobile banking applications is affected by several factors, including system quality, information quality, timeliness, ease of use, content, and service quality. Therefore, it can be

concluded that service quality plays a significant role in determining user satisfaction with mobile banking applications.

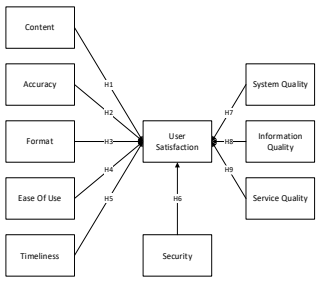

Figure 5 Proposed hypothesis model

Hypothesis	Indicators
H1	The content variable has a significant impact. (content) on user satisfaction
H2	The accuracy variable has a significant impact. on user satisfaction
H3	Format variables have a significant impact on user satisfaction.
H4	The ease of use variable has a significant impact on user satisfaction.
H5	Timeliness variable has a significant impact. on user satisfaction
H6	Security variables have a significant impact. on user satisfaction
H7	System quality variables have a significant impact on user satisfaction.
H8	Information qualityvariables have a significant impact on user satisfaction.
H9	Service quality variables have a significant impact on user satisfaction.

2.3 Instrument Preparation

The preparation of instruments is carried out to measure and test hypotheses. Variables and instrument instructions in this study in Table

Table 1. Research Variables and Indicators

NO	Variable	Indicators
1	Content	C1: Does the content of the XYZ application meet the needs of users, C2: Is the XYZ app information accurate, C3: Is the XYZ app easy to understand. C4: Is the XYZ app content XYZ app completed?
2	Accuracy	A1: The XYZ app already displays correct and accurate information; A2: XYZ app provides accurate information according to customer's wishes A3: The XYZ application provides the user access rights needed.
3	Format	F1: The display design of the XYZ app has an attractive color setting; F2: XYZ app layout display design that makes it easier for users to access it.
4	EaseOf Use	E1: The XYZ app is very simple to use. E2: The XYZ app can be used anywhere at any time.
5	Timeliness	Q1: The XYZ app can provide the required service information quickly. Q2: The latest information is always available on the XYZ app.
6	Security	Q1: The system can protect data from access by unauthorized parties. Q2: The system ensures the security of data provided to other parties for a specific purpose.
7	System Quality	SY1: Periodic XYZ system updates; SY2: Access to the XYZ app is fast and stable; SY3: XYZ Application System provides information according to the appropriate features and systems
	Information Quality	IQ1: Reliable information provided by XYZ. IQ2: XYZ provides data that matches the latest conditions.
9	Service Quality	SQ1: Transaction information corresponding to the order is displayed quickly via the XYZ application; SQ2: The XYZ app handles user complaints and issues quickly.
10	User Satisfaction	US1: The XYZ application has been used effectively (successfully); US2: You can enjoy satisfaction and trust XYZ to meet your needs.

2.4 Data Collection

The data collected for this research consists of primary and secondary data. The data collection methods include observations, interviews, literature studies, and distributing

questionnaires. The observation is conducted by visiting the XYZ Application directly to assess its appearance, information, and any problems encountered. The data obtained from this observation will support the research process. Interviews are conducted offline with XYZ application users to gather detailed information through prepared questions. Literature studies are conducted to find relevant data and information related to the research. This can be done through books, papers, journals, or previous theses. The purpose of the literature study is to provide additional references that can be used to determine solutions to the research problems.

According to Sugiyono [23] A population is a group of people or things that have specific attributes and traits chosen by researchers and are used as a foundation for drawing conclusions from their studies. Nonetheless, in terms of both size and makeup, the sample is representative of a subset of the population. Since the research participants are frequent users of the XYZ application, the Lemeshow equation formula is required to distribute surveys that apply the variables from the EUCS and DeLone McLean Models. which is an infinite population because mobile-based applications can be used anywhere at any time. by considering the infinite number of XYZ application users.

$$n = \frac{za^2pq}{e^2} \quad (1)$$

n = total sample.
z = normal curve value with a deviation of 5% with a value of 1.96.
p = max estimate 50% = 0.5.
q =1-P.
e = value of accuracy (sampling error) 10% = 0.1

$$n = (1{,}96)^2 x 0{,}5 x \frac{0{,}5}{(0.1)^2} = 96{,}04 \quad (2)$$

based on Lemeshow's equation of 96 people which was then rounded up to a minimum of 100 people. By taking a random sample, researchers distributed questionnaires via Google forms to at least 100 active XYZ users.

2.5 Data Analysis

This research employs descriptive statistics to analyze data through visual representation of the collected information. This process encompasses activities such as detailing the respondents, performing validity and reliability tests, and processing the questionnaire data. The initial step involves assessing the current condition of the XYZ application to identify any existing issues, which includes observing and analyzing its usage. The second step focuses on providing a description and analysis of the research respondents who completed the questionnaire, including an examination of their gender, age, and usage patterns of the XYZ application.

PLS-SEM is an appropriate method to use when the data collected comes from a questionnaire. [24]Partial Least Square, or PLS, is a component- or variance-based SEM structural equation model. PLSSEM is a non-parametric statistical method that does not require distribution assumptions on the data. PLSSEM can be used on non-normally distributed data with small samples. This is an alternative method to covariance-based SEM. PLS-SEM can be applied to all levels of data without requiring many assumptions[25]. According to[26] SEM-PLS is divided into two phases, namely the outer model (measurement model) and the inner model (structural model).

3. RESULTS AND DISCUSSION

3.1 Descriptive Analysis

Collected one hundred user or respondent data during the data collection process.

Survey data can be grouped based on the gender of the use of the XYZ application. Gender data is taken from the respondent's biodata. Figure 6 shows the distribution of respondents based on gender. 66% of respondents are female, while 34% of respondents are male.

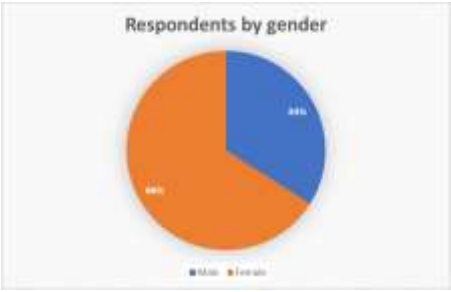

Figure 6 Description of Respondent Gender

3.2 Outer Model Analysis

The convergent and discriminant fit of the indicators that make up the construct, the combined reliability, and Cronbach alpha for each indicator block are used to assess the validity and reliability of the measurement model, or the outer model that uses reflection as an indicator. [27] Data reliability, convergent validity, discriminant validity are tested outside the model. Convergent validity is tested using outer loading and AVE, while discriminant validity is tested using factor cross loading and square root of AVE value. Measurement of data reliability is carried out using the combined reliability value and Cronbach's alpha. Can be seen in Table 2.

Table 2 Outer Loading Test Results

NO	Variable	Indicators
A1	0.863	Accepted
A2	0.840	Accepted
A3	0.890	Accepted
C1	0.898	Accepted
C2	0.889	Accepted
C3	0.825	Accepted
C4	0.860	Accepted
E1	0.873	Accepted
E2	0.902	Accepted
F1	0.844	Accepted

Table 2 shows the results of testing the outer loading for each indicator that shows the latent variables of this study. There are 24 indicators used, and all of them are valid. The indicator correlation value must be more than 0.7. Scale development stage research can still accept factor loading with a value of 0.5 to 0.6. According to [28] Furthermore, AVE testing was carried out, the results of which can be seen in Table 3

Table 3 AVE Calculation Results

NO	Ave	Indicators
A	0.747	Accepted
C	0.755	Accepted
E	0.788	Accepted
F	0.667	Accepted
IQ	0.819	Accepted
SQ	0.822	Accepted
SY	0.839	Accepted
S	0.835	Accepted
TI	0.853	Accepted
US	0.885	Accepted

According to Table 3, each variable has an Average Variance Extracted (AVE) value greater than 0.5, leading to the acceptance of all variables. The results from the outer loadings and AVE tests indicate that the data from respondents has been effectively utilized, allowing each

indicator to be used for calculating latent variables. The AVE results demonstrate that each variable can account for the variation in its respective indicators. Following this, the square root of the AVE and the cross-loading components will be employed in the discriminant validity test. Table 4 will then provide details regarding the values of Cronbach's alpha and composite reliability

Table 4 Results of alpha and reliability values

NO	Cronbach's alpha	Composite reliability	Indicators
A	0.831	0.899	Accepted
C	0.891	0.925	Accepted
E	0.731	0.881	Accepted
F	0.755	0.857	Accepted
IQ	0.781	0.901	Accepted
QS	0.784	0.902	Accepted
S	0.805	0.910	Accepted
SY	0.904	0.940	Accepted
T	0.828	0.921	Accepted
US	0.870	0.939	Accepted

Cronbach's alpha and the composite reliability results are considered acceptable when all variables exceed a value of 0.7. Table 4 illustrates the stability and consistency of respondents' answers regarding the following factors: content, accuracy, format, timeliness, user-friendliness, security, information quality, system quality, and service quality. The primary latent variable is presented for each indicator in the statement. Subsequently, cross-loading tests were conducted and are shown in Table 5.

Table 5 Cross Loading Results

	A	C	E	F	IQ	QS	SY	S	T	US
A1	**0.863**	0.759	0.700	0.691	0.707	0.726	0.707	0.603	0.719	0.745
A2	**0.840**	0.678	0.590	0.533	0.690	0.611	0.622	0.672	0.609	0.633
A3	**0.890**	0.672	0.607	0.620	0.673	0.575	0.588	0.665	0.647	0.615
C1	0.647	**0.898**	0.643	0.554	0.686	0.683	0.743	0.640	0.784	0.648
C2	0.831	**0.889**	0.694	0.574	0.715	0.665	0.732	0.706	0.734	0.712
C3	0.672	**0.825**	0.680	0.679	0.702	0.640	0.661	0.631	0.705	0.641
C4	0.681	0.860	0.675	0.587	0.692	0.746	0.764	0.635	0.734	0.738
E1	0.639	0.647	**0.873**	0.671	0.560	0.536	0.531	0.594	0.544	0.548
E2	0.668	0.726	**0.902**	0.577	0.646	0.561	0.628	0.700	0.662	0.618
F1	0.633	0.632	0.582	**0.844**	0.623	0.637	0.643	0.648	0.626	0.594
F2	0.397	0.393	0.394	**0.736**	0.413	0.352	0.413	0.342	0.351	0.375
F3	0.671	0.614	0.685	**0.864**	0.610	0.550	0.621	0.532	0.618	0.609
IQ1	0.733	0.720	0.599	0.575	**0.888**	0.654	0.705	0.718	0.705	0.636
IQ2	0.719	0.737	0.633	0.664	**0.922**	0.690	0.752	0.658	0.762	0.753
SQ1	0.722	0.773	0.668	0.664	0.750	**0.911**	0.793	0.746	0.755	0.753
SQ2	0.626	0.656	0.449	0.508	0.595	**0.902**	0.785	0.589	0.747	0.720
SY1	0.681	0.725	0.528	0.634	0.707	0.832	**0.912**	0.619	0.742	0.734
SY2	0.695	0.808	0.683	0.654	0.810	0.755	**0.910**	0.744	0.821	0.768
SY3	0.673	0.765	0.589	0.642	0.701	0.806	**0.927**	0.663	0.762	0.850
S1	0.681	0.721	0.691	0.613	0.688	0.761	0.731	**0.935**	0.748	0.701
S2	0.685	0.649	0.643	0.556	0.698	0.567	0.604	**0.892**	0.628	0.550
T1	0.708	0.824	0.625	0.655	0.772	0.774	0.810	0.715	**0.925**	0.753
T2	0.707	0.748	0.636	0.591	0.728	0.757	0.751	0.688	**0.923**	0.741
US1	0.735	0.764	0.615	0.666	0.740	0.796	0.831	0.706	0.784	**0.943**
US2	0.723	0.724	0.624	0.580	0.712	0.731	0.784	0.595	0.737	**0.938**

The values highlighted in bold represent the cross-loading values of indicators with their underlying variables; each indicator exhibits the highest cross-loading value when associated with its latent variables. According to the test results, every indicator is acknowledged to encompass fundamental values for each variable, which include aspects such as content, accuracy, format, user-friendliness, security, information quality, system quality, and service quality.

3.3 Inner Model Analysis

After the outer model is tested, the next step is testing the inner model. Inner model testing is used to evaluate RSquare, and also hypotheses related to the relationship between latent variables. RSquare value and Q-Square value can be seen in Table 6

Table 6 RSquare value

Variable	Rsquare	Rsquare adjusted
U.S.	0.791	0.770

The R-square test gauges how well the independent variables explain the variation in the dependent variable. A high R-square value indicates that the model can explain most of the variation in the data, which gives confidence in the theoretical validity of the model.Table 6 shows that if the user satisfaction variable has an RSquare value above 0.75, then the variable is considered high. Conversely, an RSquare value below 0.75 is considered good, while below 0.50 is considered moderate, and below 0.25 is considered weak. After that, hypothesis testing was carried out which produced good results.

Table 7 Hypothesis Test

	Hypothesis	P values	Description
H1	C > US	0.435	Rejected
H2	A > US	0.039	Accepted
H3	F > US	0.427	Rejected
H4	E > US	0.326	Rejected
H5	T > US	0.179	Rejected
H6	S > US	0.200	Rejected
H7	SY > US	0.001	Accepted
H8	IQ > US	0.321	Rejected
H9	QS > US	0.118	Rejected

Table 7 shows the results of hypothesis testing as follows:

1) Two assumptions are accepted: H2 and H7. These hypotheses need to have a PValue below 0.05, indicating that exogenous variables affect endogenous variables. 2) Rejected assumptions: H1, H3, H4, H5, H6, H8, and H9. These hypotheses are not accepted because they have a P Value above 0.05, indicating the influence of exogenous variables on endogenous variables. Hypothesis testing determines whether there is sufficient evidence to support the initial assumptions. If the hypothesis is accepted, it provides a strong theoretical basis for relying on the model in practice. Conversely, if the hypothesis is rejected, this suggests that the model may need to be revised or that other variables need to be considered.Overall, these two tests provide important insights into the strength and relevance of the model, both in theoretical and practical terms.

Based on the table above, it can be presented as follows

1) The relationship between Content and the level of satisfaction (User Satisfaction) is not significant because the pvalue is 0.435> (0.05).Then Hypothesis H1 in this study is rejected;

2) The relationship between Accuracy and the level of satisfaction (User Satisfaction) is said to be significant because the pvalue is 0.039< (0.05).Then Hypothesis H2 in this study is accepted;

3) The relationship between Format and the level of satisfaction (User Satisfaction) is not significant because the Pvalue is 0.427> (0.05).Then Hypothesis H3 in this study is rejected;

4). The effect of Ease Of Use with the satisfaction factor (User Satisfaction) is not significant because the Pvalue is 0.326> (0.05). Then Hypothesis H4 in this study is rejected;

5) The relationship between Timeliness and the level of satisfaction (User Satisfaction) is not significant because the Pvalue (0.179) > (0.05).Then Hypothesis H5 in this research is rejected;

6) The relationship between Security and the level of satisfaction (User Satisfaction) is not significant because the Pvalue (0.200) > (0.05). Then Hypothesis H6 in this study is rejected;

7) The relationship between System Quality and the level of satisfaction (User Satisfaction) is said to be significant because the Pvalue (0.001) <(0.05). Then Hypothesis H7 in this study is accepted;

8) The relationship between Information Quality and the level of satisfaction (User Satisfaction) is not significant because the Pvalue (0.321) > (0.05).Then Hypothesis H8 in this study is rejected;
9) The relationship between Timeliness and the level of satisfaction (User Satisfaction) is not significant because the Pvalue (0.118) > (0.05).Then Hypothesis H9 in this study is rejected;

Accepted hypotheses can strengthen or add to the understanding of existing theories. This indicates that the findings support the existing theoretical framework. On the other hand, if the hypothesis is rejected, this could challenge the basic assumptions in the theory and encourage further research to explain the discrepancy. Thus, the research results contribute to the development of more robust science and theory.

4. CONCLUSIONS

The following conclusions can be drawn from the findings of the User Satisfaction Analysis study on XYZ Application using the EUCS and DeLone & McLean models: 9 variables were used in the data analysis. The results show that the variables content (0.435), format (0.326), ease of use (0.326), timeliness (0.179), information quality (0.321), service quality (0.118) produce insignificant results and are negatively correlated with satisfaction because pvalue > 0.05. while System Quality (0.001) and Accuracy (0.039) produce noteworthy results and are positively correlated with satisfaction because pvalue < 0.05. This shows that user satisfaction with XYZ application is now significantly influenced by the findings. User satisfaction with XYZ application is not primarily influenced by content, format, timeliness, security, ease of use, information quality, or service quality.

As for the author's suggestions regarding the research conducted entitled User Satisfaction Analysis on the XYZ Application using the EUCS and DeLone & McLean models

1. For further research, it is expected to use other theories or models to support the latest research on user satisfaction with the xyz application.

2. Recommendations are given based on the results of the questionnaire data analysis that has been carried out. These recommendations can be used as a reference for improving and enhancing the quality of the XYZ application in the future. Therefore, in terms of appearance, XYZ can be improved. The XYZ display must be user-friendly, and in terms of information, it must always be updated using short, concise, and clear language so that it is easily understood by the general public.

REFERENCES

[1] J. W. Bidha *et al.*, "AXISnet BERDASARKAN MODEL DELONE AND MCLEAN ANALYSIS OF INFORMATION SYSTEM SUCCESS ON THE AXISnet MOBILE APPLICATION BASED ON DELONE AND MCLEAN MODELS," vol. 6, no. 1, 2023.

[2] N. Rahmi, R. Indrapraja, I. Buamonabot, and I. H. Kusnadi, "Jurnal Sistim Informasi dan Teknologi Measurement of End User Satisfaction Using EUCS Method on Fundraising Administration System of One of Philantrophic Institutions in Indonesia," vol. 5, pp. 5–8, 2023, doi: 10.60083/jsisfotek.v5i3.279.

[3] Ratnasari, "Indonesian Journal of Business Intelligence," vol. 1, no. 2, 2018.

[4] Jaafreh, "Evaluation Information System Success: Applied DeLone and McLean Information System Success Model in Context Banking System in KSA," no. June, 2017.

[5] D. DeLone and McLean, "The DeLone and McLean Model of Information Systems Success : A Ten-Year Update," vol. 19, no. 4, pp. 9–30, 2003.

[6] S. Kumar and M. Sharma, "International Journal of Information Management Examining the role of trust and quality dimensions in the actual usage of mobile banking services : An empirical investigation," *Int. J. Inf. Manage.*, vol. 44, no. July 2018, pp. 65–75, 2020, doi: 10.1016/j.ijinfomgt.2018.09.013.

[7] T. K. Nathania dan Ginting, ? "+ 0,169 ? ? + 0,095 ? ? .," vol. 13, no. 3, pp. 16–37, 2014.

[8] R. Sakit and R. Medica, "ANALYSIS OF SECURITY THREAT OF MANAGEMENT INFORMATION SYSTEM IN," vol. 4, no. 04, pp. 371–375, 2016.

[9] T. Gde, R. Sukawati, P. Y. Setiawan, and M. Setini, "The Effect of Security , Trust and Ease of Use towards Repurchase Intentions Mediated by E-satisfaction on Online Travel Agent," vol. 12, no. 8, pp. 340–354, 2020, doi: 10.5373/JARDCS/V12I8/20202482.
[10] A. B. T Husain, "Analisis End-User Computing Satisfaction (EUCS) Dan WebQual 4.0 Terhadap Kepuasan Pengguna 1,2," pp. 164–176.
[11] C. C. Lee and L. Dutil, "A Variation of the DeLone and McLean Model for Collaborative Commerce Services : A Structural Equation Model A Variation of the DeLone and McLean Model for Collaborative Commerce," vol. 29, no. 3, 2021.
[12] R. T. Hightower, J. M. Pearson, R. Mchaney, R. Hightower, and J. Pearson, "A validation of the end-user computing satisfaction instrument in Taiwan A validation of the end-user computing satisfaction instrument in Taiwan," no. May, 2002, doi: 10.1016/S0378-7206(01)00119-7.
[13] V. P. Aggelidis and P. D. Chatzoglou, "Hospital information systems : Measuring end user computing satisfaction (EUCS)," *J. Biomed. Inform.*, vol. 45, no. 3, pp. 566–579, 2012, doi: 10.1016/j.jbi.2012.02.009.
[14] A. Yudistira, D. Novita, P. Studi, S. Informasi, U. Multi, and D. Palembang, "Analisis Kepuasan Pengguna Aplikasi Arsip Digital Menggunakan Model End User Computing Satisfaction (EUCS)," vol. 3, no. 2, pp. 176–188, 2022.
[15] F. N. Salisah and T. K. Ahsyar, "ANALYSIS OF E-OFFICE SYSTEM USER SATISFACTION AT LAND OFFICE PEKANBARU CITY USING END USER COMPUTING SATISFACTION METHOD," vol. 4, no. 3, pp. 477–483, 2023.
[16] A. Winantu and S. I. Viony, "■ 30 Analisis Kepuasan Pengguna SIAKAD STMIK El Rahma Dengan Metode EUCS dan IPA," Asih Winantu, 2023.
[17] D. K. Arif Saputra, "ANALISIS KEPUASAN PENGGUNA SISTEM INFORMASI E-CAMPUS DI IAIN BUKITTINGGI MENGGUNAKAN METODE EUCS Arif Saputra 1* , Denny Kurniadi 2 1," vol. 7, no. 3, 2019.
[18] A. Ramadhan and I. Seprina, "ANALISA TINGKAT KEPUASAN PENGGUNA SISTEM INFORMASI AKADEMIK (SIMAK) MENGGUNAKAN METODE EUCS (STUDI KASUS : UNIVERSITAS MUHAMMADIYAH PALEMBANG)," *Bina Darma Conf. Comput. Sci.*.
[19] R. H. MA Sugandi, "No Title," vol. 9, no. 1, pp. 143–154, 2020.
[20] R. J. Angelina, A. Hermawan, and A. I. Suroso, "Analyzing E-Commerce Success using DeLone and McLean Model," vol. 5, no. 2, pp. 156–162, 2019.
[21] A. Aldholay and O. Isaac, "An extension of Delone and McLean IS success model with self-efficacy Online learning usage in Yemen," vol. 35, no. 4, pp. 285–304, 2018, doi: 10.1108/IJILT-11-2017-0116.
[22] Y. A. Dewi, S. Imanirubiarko, and D. M. Simbolon, "The Application of Delon and McLean Method and End User Computing Satisfaction to Analyze User Satisfaction of Mobile Banking Applications," vol. 4, no. January, pp. 20–25, 2024.
[23] Jasmalinda, "No Title," vol. 1, no. 10, 2021.
[24] R. Marliana, "Pelatihan pls-sem menggunakan smartpls 3.0 dosen mata kuliah statistika fisip uin sunan gunung djati bandung," vol. 02, no. 02, pp. 43–50, 2021.
[25] M. Noor, "The effect of e-service quality on user satisfaction and loyalty in accessing e-government information," *Int. J. Data Netw. Sci.*, vol. 6, no. 3, pp. 945–952, 2022, doi: 10.5267/j.ijdns.2022.2.002.
[26] A. Monecke and F. Leisch, "semPLS : Structural Equation Modeling Using Partial Least Squares," vol. 48, no. 3, 2012.
[27] I. Ghozali, "Aplikasi Analisis MultivariateNo Title".
[28] Ghozali, "pdf-ghozali-edisi-9-pdf_compress.pdf."