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Analysis of User Satisfaction of Dana Applications Using End User Computing Satisfaction (EUCS) Method and DeLone And McLean Method

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ABSTRACT

This study aims to analyze the satisfaction of DANA application users. The development of technology today we see a new innovation in the form of digital payments which aims to facilitate non-cash transactions among the public. The model used in this research is End User Computing Satisfaction (EUCS) is a method for measuring the level of user satisfaction by comparing expectations and reality. DeLone and McLean is a model used to identify the factors that cause success. The results showed that the overall level of satisfaction of DANA application users was at a satisfied level. Some variables that can be improved again to have a significant effect are accuracy, ease of use, service quality, system quality, and timeliness. However, some variables that can be improved but do not have a significant effect are content, format, and information quality.

Keyword: Analysis, User Satisfaction, EUCS, DeLone and McLean, SmartPLS.

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1. INTRODUCTION

In the present day of globalization, The fast advancement of technology and communication makes every activity easier. For example, the presence of Digital Wallet Applications that have facilitated payment transactions. With the rapid development of technology today, we see a new innovation in the form of digital payments through the DANA application, which aims to facilitate cashless transactions (cashless society) among the public. DANA is active in promoting and launching its products through various platforms. In this promotional activity, DANA collaborates with various companies in Indonesia.

With the rapid development of technology today, we see a new innovation in the form of digital payments through the DANA application, which aims to facilitate cashless transactions (cashless society) among the public. DANA is active in promoting and launching its products through various platforms. In this promotional activity, DANA collaborates with various companies in Indonesia. This is due to DANA's open concept that allows it to be used on various platforms, both offline and online, while remaining connected in an integrated manner.

DANA (Indonesia's digital wallet) is a platform designed to make transactions non-cash and fast online. Emtek Group and Ant Financial established a company officially known as PT.Espay Debit Indonesia Koe. The DANA application offers a variety of features that can facilitate transaction activities in everyday life. Starting from balance transfers between users, credit purchases, household bills, credit card installments and so on [1]. Based on the number of active users, DANA is among the biggest independent local e-wallets, having launched in 2018. assurance and user security for both data centers and data recovery situated in Indonesia. According to Bank Indonesia's security guidelines and laws, this application is now formally a financial institution based on information technology. Through collaboration with a number of banks, including BRI, BCA, BNI, BTN, Bank Mandiri, Permata Bank, Panin Bank, Sinarmas Bank, and CIMB Niaga, DANA has established a vast commercial network [2].

Based on direct observation of the application on the Google Play Store and App Store, several criticisms of the DANA application were found. Where some of these criticisms occur system errors, there are some users who lose money, slow connections, cannot make transactions. Some of these criticisms make users disappointed and can affect the satisfaction of using the DANA application [3]. user satisfaction is an important thing for service providers in companies / agencies. Satisfaction means a feeling of satisfaction, a feeling of pleasure, and a sense of relief when someone uses a product or service to get a service. User satisfaction is the result of user experience regarding operating system functionality that meets standards. Users who are satisfied with the service have a tendency to use it more often and with greater loyalty [4].

To assess the extent of user or system user satisfaction, researchers use the End User Computing Satisfaction (EUCS) and DeLone and McLean methods because it is one of the most well-known and frequently tested models. This study analyzes user satisfaction with the DANA application using the End User Computing Satisfaction (EUCS) and DeLone and McLean methods to measure the level of user satisfaction with the DANA application and determine the factors that influence user satisfaction with the DANA application.

2. METHODS

This research requires several stages that will be carried out procedurally and sequentially. The research stages begin with the observation stage and literature review, problem definition, problem identification, and research goals, population and sample selection, data collection by compiling questionnaires, data analysis, and closing with conclusions and suggestions [5]. The research flow of this study explained in Figure 1.

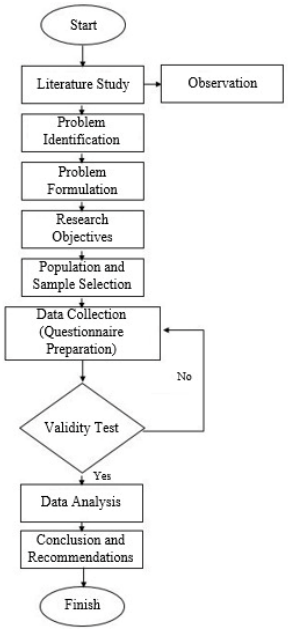

Figure 1. Research Flow

2.1 Research Approach

The research conducted will apply a quantitative approach to test the EUCS and DeLone and McLean models to evaluate the user satisfaction of the DANA application. The author uses a quantitative approach which includes data collection methods and data analysis methods. In this work, the quantitative approach takes the form of survey data collection employing questionnaires and statistical data processing programs for data analysis.

Data will be collected through direct observations of the DANA application, literature reviews, and online questionnaires distributed via social media such as WhatsApp, Instagram, Telegram, and Line using Google Forms. The collected questionnaire results will be analyzed using the Excel 2016 application and the SmartPLS tool.

2.2 Research Population and Sample

This study will focus on users of the DANA application in the Surabaya City area and around Surabaya University. The author used a purposive sampling technique to conduct the study. This technique involves selecting individuals based on their experience using the DANA application. Then, incidental sampling was carried out, meaning that sample members were selected from among respondents who happened to be present (accidental sampling) [6]. Based on the Lemeshow formula, the number of samples was calculated as follows:

$$n = \frac{z^2 p(1-p)}{d^2} = \frac{1.96^2 0.5(1-0.5)}{10\%^2} = \frac{0.9604}{100} = 96{,}04$$

Or rounded up to 100 samples

Description:

n = Number of Samples

z = Standard value of 1.96

p = Maximum estimate = 50% = 0.5

d = alpha (0.10) or sampling error = 10%

Considering the limited time and cost, as well as the Lemeshow formula, the researcher will use a sample of 160 respondents to represent the total population. This approach is supported by several theories. According to Wong's theory, SEM The sample size needed for structural equation modeling is between 100 and 200 [7]. The number of arrows, or routes, that lead to latent variables in PLS-SEM also determines the sample size (the 10-times rule of thumb). [8].

2.3 Research Instruments

This research instrument is a questionnaire which is divided into two parts. The first part is a research cover letter containing a request from the author to conduct research. The second part is a questionnaire, as many as 32 questions consisting of 6 questions about the respondent's profile, and 26 questions made based on the adoption of the EUCS and DeLone and McLean models. As shown in Table 1, the questions are adjusted based on the variables contained in the EUCS and DeLone and McLean methods [9].

Table 1. Research Instruments

Variable	Code	Questions
Content	C1	DANA app provides content that suits your needs
	C2	DANA app provides diverse content
	C3	DANA app provides quality content
	C4	DANA app provides useful content
Accuracy	A1	DANA App presents accurate information
	A2	DANA app presents reliable information
	A3	DANA application displays the output that matches what is commanded
Format	F1	DANA application has an attractive system display
	F2	DANA app has a clear system display
	F3	DANA application has a system display that is easy to understand
	F4	The appearance of the DANA application makes it easy for users to use the DANA application
Easy of Use	EU1	DANA app has an easy-to-use system
	EU2	DANA app has a system that is easy to understand
Timeliness	T1	DANA application provides the information needed in a timely manner
	T2	DANA app provides up-to-date information
System Quality	SQ1	DANA app performs regular system updates
	SQ2	DANA app responds to commands from users quickly
	SQ3	DANA application provides information in accordance with the functions and needs, for the security of user data that uses
Information Quality	IQ1	DANA application presents information that is in accordance with the current conditions

Service Quality	IQ2	DANA app presents reliable information
	SEQ1	DANA application displays the appropriate transaction information as instructed quickly
	SEQ2	DANA application provides a sense of security to users in making transactions
User Satisfaction	US1	DANA application in its use is effective
	US2	DANA app is already working efficiently
	US3	DANA application fulfills the needs of those who use DANA application
	US4	DANA application is overall satisfactory

2.4 Hypothesis

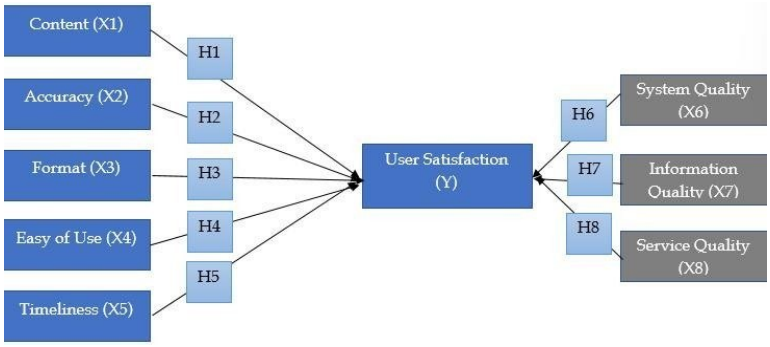

Figure 2. EUCS and DeLone and McLean Research Model

Figure 2 explains the EUCS and DeLone and McLean research model. The following is a description of the hypothesis in this study are:

H1 : Accuracy variable has a significant effect on the level of User Satisfaction (Y).
H2 : Content variable has a significant effect on the level of User Satisfaction (Y).
H3 : Easy to use variable has a significant effect on the level of User Satisfaction (Y).
H4 : Format variable has a significant effect on the level of User Satisfaction (Y).
H5 : Information Quality variable has a significant effect on the level of User Satisfaction (Y).
H6 : Service Quality variable has a significant effect on the level of User Satisfaction (Y).
H7 : System Quality variable has a significant effect on the level of User Satisfaction (Y).
H8 : Timeliness variable has a significant effect on the level of User Satisfaction (Y).

2.5 Data Collection Technique

Data collection techniques that will be used in this research are observation, survey, and literature study. Literature study is carried out by searching for information based on sources such as journals, books, websites related to research. The author will collect and study information related to measuring the level of customer acceptance, the EUCS model, quantitative research methods, and SmartPLS for data processing. In addition, the author will review previous research journals to serve as references.

Observation is done by directly observing the user reviews of the DANA application in the comments column on the Google Play Store and App Store, as well as making

direct observations of the DANA application. This stage provides information about user reviews that express criticism or praise.

The survey that will be carried out to help the research process is in the form of a questionnaire. The distribution process is carried out online to respondents through social media such as WhatsApp, Instagram, Telegram, and Line by using google form as a medium for filling out questionnaires.

The scale will be used in the study, namely using a Likert scale as shown in Table 2. Likert scale is a survey activity to someone by giving responses and opinions agreeing or disagreeing [10].

Table 2. Likert Scale

Description	Score
Strongly Agree	5
Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

2.6 Data Analysis Technique

At this point, it will be separated into two sections: statistical analysis and demographic analysis. The author will use Ms. Excel 2016 to handle demographic data in order to do the analysis in the first section. The measurement model (outer model) and structural model (inner model) will next be statistically analyzed by the author using the SmartPLS tool. By using reliability indicators, internal consistency reliability, convergent validity, and discriminant validity, the measurement model (outer model) is tested for validity and reliability. Conversely, the structural model (inner model) is used to assess the effect size (f^2), the path coefficient (β), the coefficient of determination (R^2), and the t-test using the bootstrapping approach. [11].

In data interpretation, the author will describe the results of the demographic analysis of respondents by looking at the actual situation. Then the results of the outer model and inner model analysis in the form of numbers will be translated into words by considering the results of similar research related to the research.

3. RESULTS AND DISCUSSION

3.1 Pilot Study

Pilot study is one of the stages used in testing the reliability and validity of research instruments with the aim of testing all instruments in the questionnaire used by researchers has been successful. The pilot study conducted in this study used a total of 50 respondents who were users using the DANA application. The pilot study has an Average Variance Extracted (AVE) value above 0.5 and a Composite Reliability (CR) value above 0.7 so that an instrument can be said to have qualified validity and reliability. Composite Reliability (CR) is a measure to evaluate the measurement model to be used in research. The amount of variance or diversity of manifest variables is described by Average Variance Extracted (AVE). (indicator value scores for each variable) owned by latent constructs.

1. Composite Reliability Test

Table 3. Composite Reliability (CR)

Variable	Composite Reliability (CR)
Accuracy	0.916
Content	0.919
Easy of Use	0.960
Format	0.921
Information Quality	0.936
Service Quality	0.859
System Quality	0.846
Timeliness	0.876
User Satisfaction	0.946

Composite Reliability (CR) that informed in Table 3 has a value that must be above 0.7 [12]. After testing the Composite Reliability, the results are shown in Table 3 that all variables have a value above 0.7 and are declared valid for use in research.

2. Average Variance Extracted Test

Table 4. Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
Accuracy	0.784
Content	0.741
Easy of Use	0.923
Format	0.746
Information Quality	0.880
Service Quality	0.753
System Quality	0.649
Timeliness	0.779
User Satisfaction	0.813

Average Variance Extracted (AVE) has a value that must be above 0.5 to be considered good (Hair, 2014). After testing the Average Variance Extracted (AVE), the results are shown in Table 4 that all variables have a value above 0.5 and are declared to meet the requirements for use in research.

Based on the results of all Pilot Study tests that have been carried out, it can be concluded that all instruments in this research questionnaire have met the research requirements and can be used in this study.

3.2 Demographic Analysis

Demographic analysis is the stage of analyzing respondents' answers to the questionnaire which consists of questions about the respondent's profile and several questions related to the use of the DANA application. Demographic analysis is used by researchers to provide information about the demographic characteristics of respondents so that the distribution of DANA application users can be known based on the category.

Data collection was carried out within 7 days starting from October 28 - November 3, 2024 with 160 respondents. From the questionnaire that has been filled in by respondents, demographic information consisting of gender, age, length of use, device used is known.

1. Gender

Based on Figure 3, it shows that out of 160 respondents, 87 of them are men with a percentage of 54% and 73 are women with a percentage of 46%.

2. Age

Based on Figure 4, shows that of the 160 respondents, it is known that the respondents in this study consisted of 4% of respondents aged <18 years, namely 7 people, 87% of respondents aged 18-25 years, namely 139 people, 9% of respondents aged> 25 years, namely 14 people.

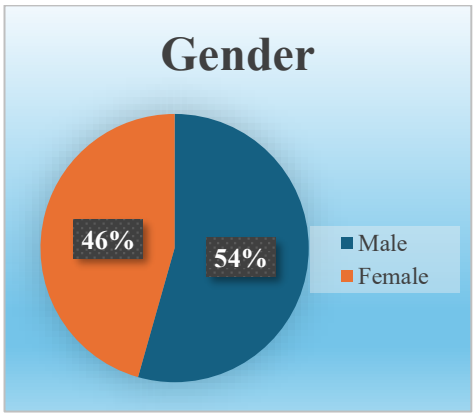

Figure 3. Gender of Respondents

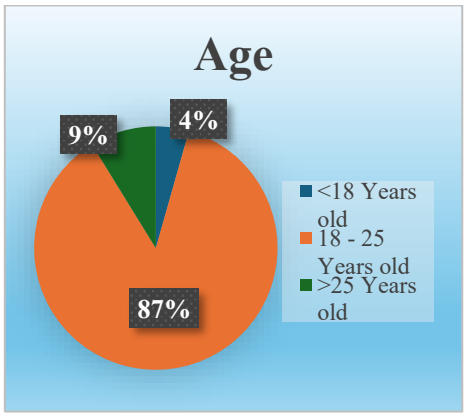

Figure 5. Age of Respondents

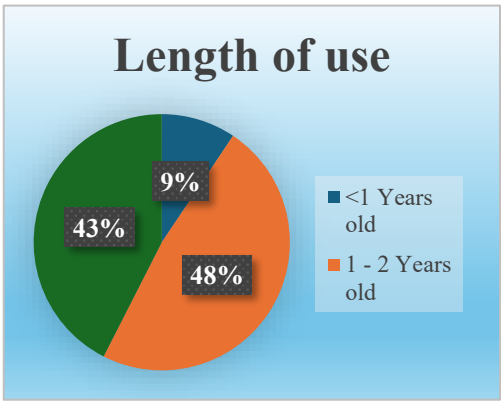

Figure 4. Respondent's Length of Use

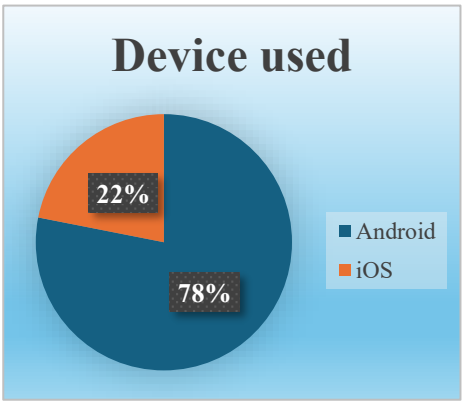

Figure 6. Device Used by Respondents

3. Length of use

Based on Figure 5, it shows that of the 160 respondents, it is known that the respondents in this study consisted of 9% of respondents with a length of use of <1 year, namely 15 people, 48% of respondents with a length of use of 1-2 years, namely 77 people, 43% of respondents with a length of use of >2 years, namely 68 people.

4. Device used

Based on Figure 6, it shows that out of 160 respondents, 125 of them are android device users with a percentage of 78% and 35 others are iOS device users with a percentage of 22%.

3.3 User Satisfaction Level Measurement Analysis

Table 5. User Satisfaction Level

Variables	Mean	Scale	Predicate
Content	4,142	4	Agree
Accuracy	4,131	4	Agree
Format	4,178	4	Agree
Easy of Use	4,218	4	Strongly Agree
Timeliness	4,140	4	Agree
System Quality	4,147	4	Agree
Information Quality	4,112	4	Agree
Service Quality	4,153	4	Agree
Mean	4,153		

As shown in Table 5, the results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA application users for the content variable is 4.142. These results can be concluded that users agree with the content presented in the DANA application.

The results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA Application users for the accuracy variable is 4.131. These results can be concluded that users agree with the accuracy of the information in the DANA Application.

The results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA Application users for the format variable is 4.178. These results can be concluded that users agree with the content displayed on the DANA Application.

The results of the questionnaire data processing state the results that the average value of all respondents' answers to the DANA Application users for the easy of use variable is 4.218. These results can be concluded that customers strongly agree on the ease of use of the DANA Application.

The results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA Application users for the timeliness variable is 4.140. These results can be concluded that users agree with the speed and timeliness of the DANA Application.

The results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA Application users for the system quality variable is 4.147. These results can be concluded that users agree with the system quality of the DANA Application.

The results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA Application users for the information quality variable is 4.112. These results can be concluded that users agree with the quality of information presented by the DANA application.

The results of processing the questionnaire data state the results that the average value of all respondents' answers to the DANA Application users for the service quality variable is 4.153. These results can be concluded that users agree on the quality of service owned by the DANA Application [14].

3.4 Outer Model Analysis Results

1. Individual Item Reliability Test

The individual item reliability test aims to identify standardized load factors that explain the magnitude of the relationship between each measurement item (indicator) and its construction. A load factor value of more than 0.7 can be considered ideal, which indicates that the indicator is valid as a measure of that construction [13]. After testing using the SmartPLS 4 tool, the results of the external load values listed in Table 6 with a standardized load factor that should exceed 0.7, it is confirmed that all indicators are valid as measures of the construct.

Table 6. Outer Loading Test Results

Indicator	Outer Loadings	Indicator	Outer Loadings
A1<-Accuracy	0,941	IQ1<-Information Quality	0,970
A2<-Accuracy	0,937	IQ2<-Information Quality	0,970
A3<-Accuracy	0,911	SEQ1<-Service Quality	0,916
C1<-Content	0,841	SEQ2<-Service Quality	0,940
C2<-Content	0,941	SQ1<-System Quality	0,860
C3<-Content	0,935	SQ2<-System Quality	0,879
C4<-Content	0,900	SQ3<-System Quality	0,900
EU1<-Easy of Use	0,934	T1<-Timeliness	0,947
EU2<-Easy of Use	0,949	T2<-Timeliness	0,937
F1<-Format	0,862	US1<-User Satisfaction	0,924
F2<-Format	0,943	US2<-User Satisfaction	0,955
F3<-Format	0,906	US3<-User Satisfaction	0,918
F4<-Format	0,934	US4<-User Satisfaction	0,942

2. Internal Consistency Reliability Test

The second phase of model measurement (Outer Model) is the Internal Consistency Reliability Test. The Composite Reliability (CR) value is analyzed in order to perform this test. One metric for evaluating the measurement model to be utilized in research is Composite Reliability (CR) [13]. All variables can be deemed legitimate for use in research if the Composite Reliability (CR) value is greater than the minimal threshold of 0.7 [13]. It shown in Table 7.

Table 7. Composite Reliability Results *(CR)*

Variables	Composite Reliability (CR)
Accuracy	0,950
Content	0,948
Easy of Use	0,940
Format	0,952
Information Quality	0,969
Service Quality	0,925
System Quality	0,911
Timeliness	0,940
User Satisfaction	0,965

3. Average Variance Extracted Test

The third step of model measurement (Outer Model) is the Average Variance Extracted (AVE) test. This test explains how much diversity or variance in manifest variables hidden constructs can hold. The amount of variance or diversity of manifest variables is described by Average Variance Extracted (AVE). (indicator value scores for each variable) owned by latent constructs [13]. Average Variance Extracted (AVE) has a minimum value of 0.5 to be declared a good measure of convergent validity [13]. The results of AVE testing shown in Table 8.

Table 7. Average Variance Extracted Results *(AVE)*

Variables	Average Variance Extracted (AVE)
Accuracy	0,864
Content	0,819
Easy of Use	0,887
Format	0,831
Information Quality	0,941
Service Quality	0,861
System Quality	0,774
Timeliness	0,887
User Satisfaction	0,874

4. Discriminant Validity Test

The fourth step, the discriminant validity test, examines the cross loading value between indicators and Fornell-Lacker's cross loading. The cross loading measure is to compare the correlation between indicators and other block constructs. Cross loading is declared valid if each manifest variable on the variable concerned is greater than the cross loading on other latent variables [13]. The following is the cross loading value in Table 9 with results stating that the results are declared valid in accordance with the test requirements.

Table 8. Cross Loading Result

	A	C	EU	F	IQ	SEQ	SQ	T	US
A1	0,941	0,797	0,780	0,756	0,789	0,644	0,794	0,737	0,782
A2	0,937	0,828	0,731	0,705	0,789	0,611	0,777	0,775	0,752
A3	0,911	0,825	0,765	0,835	0,770	0,670	0,761	0,775	0,764
C1	0,668	0,841	0,690	0,800	0,785	0,845	0,707	0,671	0,685
C2	0,743	0,941	0,768	0,828	0,838	0,822	0,779	0,728	0,759
C3	0,891	0,935	0,759	0,818	0,856	0,737	0,780	0,793	0,750
C4	0,871	0,900	0,745	0,745	0,785	0,657	0,748	0,729	0,731
EU1	0,796	0,819	0,934	0,893	0,804	0,722	0,728	0,583	0,722
EU2	0,745	0,729	0,949	0,793	0,778	0,716	0,742	0,735	0,818
F1	0,788	0,818	0,727	0,862	0,735	0,677	0,743	0,667	0,708
F2	0,786	0,812	0,830	0,943	0,814	0,787	0,734	0,710	0,778
F3	0,701	0,771	0,853	0,906	0,785	0,779	0,749	0,638	0,768
F4	0,728	0,813	0,836	0,934	0,792	0,760	0,705	0,604	0,677
IQ1	0,801	0,867	0,791	0,809	0,970	0,753	0,836	0,776	0,780
IQ2	0,832	0,882	0,835	0,855	0,970	0,777	0,848	0,774	0,772
SEQ1	0,625	0,798	0,734	0,769	0,760	0,916	0,709	0,665	0,696
SEQ2	0,655	0,772	0,688	0,763	0,709	0,940	0,753	0,652	0,818
SQ1	0,657	0,603	0,566	0,573	0,634	0,605	0,860	0,695	0,752
SQ2	0,751	0,754	0,691	0,701	0,779	0,693	0,879	0,758	0,805
SQ3	0,793	0,832	0,794	0,840	0,870	0,779	0,900	0,751	0,819
T1	0,770	0,776	0,694	0,686	0,752	0,716	0,815	0,947	0,808
T2	0,774	0,744	0,631	0,670	0,754	0,614	0,758	0,937	0,745
US1	0,730	0,745	0,752	0,736	0,743	0,789	0,825	0,776	0,924
US2	0,749	0,754	0,776	0,765	0,730	0,816	0,842	0,766	0,955
US3	0,829	0,788	0,788	0,807	0,780	0,736	0,817	0,777	0,918
US4	0,775	0,737	0,753	0,709	0,741	0,725	0,883	0,768	0,942

Next is to find the results of Fornell-Lacker's cross loading, by comparing the root value of AVE between constructs with other constructs. The root value of AVE must be greater than other constructs [13]. The following is the Fornell-Lacker's

cross loading value in Table 10 with results stating that the results are declared valid in accordance with the test requirements.

Table 9. Fornell-Lacker's Cross Loading Results

	A	C	EU	F	IQ	SEQ	SQ	T	US
A	0,930								
C	0,878	0,905							
EU	0,816	0,818	0,942						
F	0,824	0,881	0,891	0,912					
IQ	0,842	0,902	0,838	0,858	0,970				
SEQ	0,690	0,844	0,763	0,825	0,789	0,928			
SQ	0,836	0,833	0,780	0,804	0,868	0,789	0,880		
T	0,820	0,808	0,704	0,720	0,799	0,708	0,836	0,942	
US	0,824	0,808	0,821	0,806	0,800	0,820	0,901	0,825	0,935

Based on the outcomes of four testing phases on the measurement model analysis (Outer Model), this study possesses traits that satisfy test requirements, including discriminant validity, internal consistency reliability, individual item reliability, and average variance extracted (AVE). It may now be used to test the structural model (Inner Model) since it satisfies the test requirements.

3.5 Discussion of Measurement Model Analysis Results (Outer Model)

Based on the results of the measurement model analysis (Outer Model) that has been carried out in this study, all results show that the test has met the requirements. In the first stage, the reliability test results of each item show an external loading value that exceeds the 0.7 limit. In the second stage, the internal consistency reliability test results show a value that is also above the 0.7 limit. In the third stage, the Average Variance Extracted (AVE) test shows results that are in accordance with the research requirements, namely a minimum AVE of 0.5. The fourth stage, which relates to discriminant validity, based on the results of cross loading and Fornell-Larcker cross loading, shows that this test has provided results that are in line with the existing test requirements.

3.6 Inner Model Analysis Results

1. Path Coefficient (β) Test

   By examining the path coefficient, which indicates the strength of the association between each construct, testing is now done to ascertain the significance of the relationship between each construct. To be deemed to have an impact on the model, the path coefficient value must be greater than 0.1 [13].

Table 10. Path Coefficient Results *(β)*

Relationship between Variables	*Path Coefficients* ***(β)***
A -> US	0,189
C -> US	-0,167
EU -> US	0,277
F -> US	-0,044
IQ -> US	-0,236
SEQ -> US	0,311
SQ -> US	0,498

T -> US	0,193

The path coefficient test results in Table 11 state that there are 3 out of 8 paths that show a path coefficient value below 0.1, namely C -> US, F -> US, and IQ -> US. This concludes that the three paths are not significant to the model. The following is a model of the path coefficient test in Figure 7.

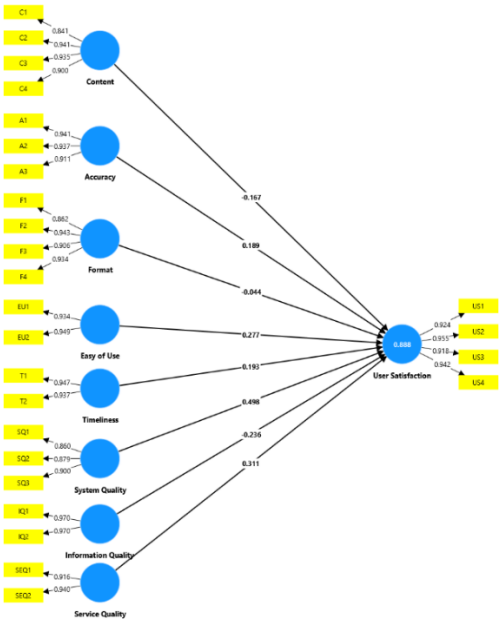

Figure 7. Path Coefficient Model

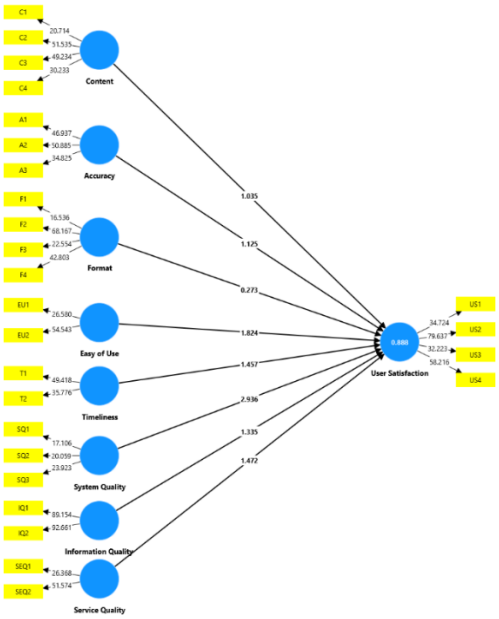

Figure 8. T-statistic Model

2. Coefficient of Determination (R^2) Test

This stage aims to measure how much the model's ability to explain how the independent variable affects the dependent variable. Coefficient of Determination (R^2) measurement has a standard, namely a value of around 0.67 is declared strong. If the value is around 0.33, it is declared moderate. However, if the value is less than 0.19, it indicates that it is at a weak level [13]. The following is the result of the Coefficient of Determination (R^2) in Table 12 of 0.888 which means strong.

Table 11. Coefficient of Determination Results *(R^2)*

Variables	R-Square	Description
User Satisfaction	0,888	Strong

3. T-test

The T-test, which employs a two-tailed test with a significance level of 5% to examine all research hypotheses, is conducted using the bootstrapping approach in SmartPLS 4. If the T-test value is greater than 1.96, the hypothesis will be accepted [13].

Table 12. T-test Result

Relationship between Variables	T-test	Description
A -> US	1,125	Rejected
C -> US	1,035	Rejected
EU -> US	1,824	Rejected
F -> US	0,273	Rejected
IQ -> US	1,335	Rejected

SEQ -> US	1,472	Rejected
SQ -> US	2,936	Accepted
T -> US	1,457	Rejected

The T-test results in Table 13 were there is 1 hypothesis that has a value above 1.96, namely SQ -> US with a value of 2.936, which means that this hypothesis is accepted and 7 other hypotheses are rejected. The following is the T-statistic model in Figure 8.

4. Effect Size (f^2) Test

In this fourth stage, testing is carried out to estimate and determine how much influence the relationship between certain variables and other variables in the model structure. There are 3 standards that are required in testing effect size (f^2), namely 0.02 for small influence, 0.15 for medium influence, 0.35 for large influence and less than 0.02 is declared to have no influence in the model structure [13]. The following are the results of the effect size (f^2) test in Table 14 which states that the hypothesis paths A -> US, C -> US, IQ -> US, and T -> US have little effect on the model structure. Then the EU -> US, and SEQ -> US hypothesis paths have a medium influence on the model structure. Then on the hypothesis path SQ -> US has a big influence on the model structure. Then on the path F -> US has no influence on the model structure. Table 14 explains the result of effect size test.

Table 13. Effect Size Results *(f^2)*

	Hypothesis Path	f^2	Description
H1	A -> US	0,043	Small
H2	C -> US	0,022	Small
H3	EU -> US	0,117	Medium
H4	F -> US	0,002	-
H5	IQ -> US	0,062	Small
H6	SEQ -> US	0,170	Medium
H7	SQ -> US	0,350	Big
H8	T -> US	0,079	Small

3.7 Discussion of the Results of the Structural Model Analysis (Inner Model)

1. H1 : Accuracy has an influence on user satisfaction in DANA Application users

Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

Then with a T-test of 1.125, the hypothesis A -> US is rejected. However, the effect size value (f^2) shows 0.043 which states that the accuracy variable has little effect on user satisfaction. Then in the Path Coefficient (β) test which states a significant result of 0.189 which concludes that the accuracy variable has a significant effect on user satisfaction. Therefore, it is concluded that if you improve the DANA application in terms of information displayed that is sufficiently accurate and reliable and the alignment between input and output produced will have a significant effect in increasing user satisfaction.

2. H2 : Content has an influence on user satisfaction on DANA Application users

Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy,

content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

Then with a T-test of 1.035, the hypothesis C -> US is rejected. However, the effect size value (f^2) shows 0.022 which states that the accuracy variable has little effect on user satisfaction. Then in the Path Coefficient (β) test which states insignificant results of -0.167 which concludes that the content variable has an insignificant effect on user satisfaction. Based on respondents' responses to the variable, namely content, the DANA application is considered to be maximized, for example in terms of quality, diverse, and useful content and according to user needs. With this, the content that is determined can be said to have been able to increase user satisfaction with the DANA application, and if it is increased, it will not have a significant effect in increasing user satisfaction.

3. H3 : Ease of Use has an influence on user satisfaction in DANA Application users

   Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

   Then with a T-test of 1.824, the hypothesis EU -> US is rejected. However, the effect size value (f^2) shows 0.117 which states that the ease-of-use variable has a medium effect on user satisfaction. Then in the Path Coefficient (β) test which states a significant result of 0.277 which concludes that the ease-of-use variable has a significant effect on user satisfaction. Therefore, it is concluded that if you improve the DANA application in terms of easy understanding of the use of the DANA application, it will have a significant effect in increasing user satisfaction.

4. H4 : Format has an influence on user satisfaction in DANA Application users

   Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

   Then with a T-test of 0.273, the hypothesis F -> US is rejected. However, the effect size value (f^2) shows 0.002 which states that the format variable has no influence on user satisfaction. Then in the Path Coefficient (β) test which states insignificant results of -0.044 which concludes that the format variable has an insignificant effect on user satisfaction. Based on the respondents' responses on the variable, namely ease of use, the DANA application is considered to be maximized, for example in terms of an attractive, clear, easy to understand, and user-friendly system display, and if it is improved, it will not have a significant effect in increasing user satisfaction.

5. H5: Information Quality has an influence on user satisfaction for DANA Application users.

   Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

   Then with a T-test of 1.335, the IQ -> US hypothesis is rejected. However, the effect size value (f^2) shows 0.062 which states that the information quality variable has little effect on user satisfaction. Then in the Path Coefficient (β) test which

states insignificant results of -0.236 which concludes that the information quality variable has an insignificant effect on user satisfaction. Based on respondents' responses to the variable, namely ease of use, the DANA application is considered to be maximized, for example in terms of presenting reliable information and in accordance with current conditions, and if it is improved it will not have a significant effect in increasing user satisfaction.

6. H6 : Service Quality has an influence on user satisfaction in DANA Application users

   Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

   Then with a T-test of 1.472, the SEQ -> US hypothesis is rejected. However, the effect size value (f^2) shows 0.170 which states that the service quality variable has a medium effect on user satisfaction. Then in the Path Coefficient (β) test which states a significant result of 0.311 which concludes that the service quality variable has a significant effect on user satisfaction. Therefore, it is concluded that if you improve the DANA application in terms of transaction output and security in using the DANA application, it will have a significant effect in increasing user satisfaction.

7. H7 : System Quality has an influence on user satisfaction in DANA Application users

   Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

   Then with a T-test of 2.936, the hypothesis SQ -> US is accepted. However, the effect size value (f^2) shows 0.350, which states that the system quality variable has a large influence on user satisfaction. Then in the Path Coefficient (β) test which states a significant result of 0.498 which concludes that the system quality variable has a significant effect on user satisfaction. Therefore, it is concluded that if you improve the DANA application in terms of regular system updates, fast response from the DANA application, and information related to good data security, it will have a significant effect in increasing user satisfaction.

8. H8 : Timeliness has an influence on user satisfaction in DANA Application users

   Based on the results of the analysis that has been carried out, it can be seen that the Coefficient of Determinant (R^2) value shows strong with a value of 0.888. The value (R^2) of 88.8% of the user satisfaction variable is influenced by the accuracy, content, ease of use, format, information quality, service quality, system quality, and timeliness variables.

   Then with a T-test of 1.457, the T -> US hypothesis is rejected. However, the effect size value (f^2) shows 0.079 which states that the timeliness variable has little effect on user satisfaction. Then in the Path Coefficient (β) test which states a significant result of 0.193 which concludes that the timeliness variable has a significant effect on user satisfaction.

Therefore, it is concluded that if you improve the DANA application in terms of timeliness and the latest updated information, it will have a significant effect in increasing user satisfaction [15].

CONCLUSION

Based on the test results, the overall satisfaction level of the DANA application users is at the PUAS level, which means that users are satisfied in using the DANA application. This can be seen in the mean value of 4.153. With the results of this study, it is necessary for the DANA Application to be able to maintain or improve again regarding user satisfaction. Some of the variables that need to be maintained and improved in a DANA application so that they have a significant effect are accuracy, ease of use, service quality, system quality, and timeliness. Some variables that need to be maintained and improved on a DANA Application, but do not have a significant effect are content, format, and information quality.

Based on the results of the analysis that has been carried out, it is known that 7 hypotheses are not accepted, namely accuracy, content, ease of use, format, information quality, service quality, and timeliness and 1 hypothesis is accepted, namely system quality. So, it can be concluded that the factor that affects the user satisfaction of the DANA application using the End User Computing Satisfaction (EUCS) method and DeLone and McLean is system quality.

REFERENCES

[1] Fitratul Aini, Fitriani Muttakin, Tengku Khairil Ahsyar, & Eki Saputra. (2023). Analisis Kepuasan Pengguna Aplikasi DANA Menggunakan Metode TAM dan EUCS. Jurnal Sistem Cerdas, 6(1), 65 - 76.

[2] Sakinah, Nabila Rizky Oktadini. (2023). Analisis Kepuasan Pengguna Terhadap Aplikasi Dana Menggunakan Metode End User Computing Satisfaction (EUCS). Jurnal Teknologi Komputer dan Sistem Informasi, 6(2), 185-192

[3] Aaker, D. A. (2013). Manajemen Pemasaran Strategis (8th ed.). Salemba Empat.

[4] T. L. T. Chairunnisa, E. Rosmika, and A. Azulaidin, "Analisis Kepuasan Masyarakat Terhadap Penggunaan Aplikasi SiBisa dengan Pendekatan TAM," Ekon. Keuangan, Investasi dan Syariah, vol. 3, no. 2, pp. 174–180, 2021, doi: 10.47065/ekuitas.v3i2.1117.

[5] Hermawan, G. C., & Suyatno, D. F. (2023). Analisis Kepuasan Pelanggan Terhadap Layanan Aplikasi Klik Indomaret Menggunakan Metode End User Computing Satisfaction (EUCS) dan DeLone and McLean. *Journal of Emerging Information Systems and Business Intelligence)*, *50*.

[6] Hadi, S. (2016). Statistik.Jakarta: Pustaka Pelajar

[7] Wong, K. K. K. (2013). Partial Least Squares Structural Equation Modeling (PLS- SEM) Techniques Using SmartPLS. Marketing Bulletin, 24(1), 1-32. Retrieved from http://marketingbulletin.massey.ac.nz

[8] Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial Least Squares Strucrtural Equation Modelling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*, 26(2), 106-121. Retrieved from https://doi.org/10.1108/EBR-10-2013-0128.

[9] Doll, W. J., & Torkzadeh, G. (1988). The Measurement of End-User Computing Satisfaction. MIS quarterly, 259-274

[10] Budiaji, & Weksi. (2013). Skala Pengukuran Dan Jumlah Respon Skala Likert (The Measurement Scale And The Number Of Responses In Likert Scale) Vol 2. Jurnal Ilmu Pertanian dan Perikanan, 127- 133.

[11] Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial Least Squares Strucrtural Equation Modelling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*, 26(2), 106-121. Retrieved from https://doi.org/10.1108/EBR-10-2013-0128.

[12] Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial Least

Squares Strucrtural Equation Modelling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*, 26(2), 106-121. Retrieved from https://doi.org/10.1108/EBR-10-2013-0128.

[13] Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2–24

[14] Kotler, Philip & Armstrong, Gary. 2014. Prinsip-prinsip Manajemen. Edisi 14, Jilid1. Jakarta: Erlangga.

[15] Rasman, 2012. Gambaran Hubungan Unsur - unsur End User Computing Satisfaction. Jakarta: s.n.