User Satisfaction Analysis of Ajaib Alpha Application Using EUCS Method

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Abstract

The development of financial technology has driven the increasing use of digital investment applications such as Ajaib Alpha. This study aims to analyze user satisfaction with the Ajaib Alpha application using the End-User Computing Satisfaction (EUCS) model, which includes five dimensions: content, accuracy, format, ease of use, and timeliness. This research uses a descriptive quantitative approach by distributing questionnaires to 400 active users of the application. Data were analyzed using descriptive statistics and structural model testing through the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, with the assistance of Jamovi and WarpPLS software. The results show that the dimensions of content, accuracy, and format significantly influence user satisfaction, while the dimensions of timeliness and ease of use do not have a significant effect. These findings indicate that information quality and interface presentation are the main factors affecting user satisfaction levels with the Ajaib Alpha application. This research is expected to serve as a foundation for developers in improving the quality of digital investment application services.

Keywords: *Ajaib Alpha, EUCS, Digital Investment, User Satisfaction, PLS-SEM*

1. Introduction

The transformation of technology in the financial sector (fintech) has made it easier for people to access financial services digitally, including in terms of investment. Digital-based applications have now become practical solutions for users to conduct buying and selling transactions of capital market instruments such as stocks and mutual funds online [1], [2]. Among the various investment applications developing in Indonesia, Ajaib is one of the widely known platforms due to its ease of use, real-time updated market information, and educational features aimed at novice investors.

Despite continuous development of features and services, the success of an application does not only depend on the number of users, but also on the extent to which users feel satisfied in accessing and using the application [3]. User satisfaction becomes an important indicator in assessing service success, as it directly relates to loyalty, recommendations, and continuity of application use. Therefore, measuring user satisfaction becomes an important step so that developers can understand user needs and improve the quality of services provided [3].

To assess the level of user satisfaction, one of the widely used models is the End-User Computing Satisfaction (EUCS) developed by Doll and Torkzadeh. This model evaluates five main dimensions that influence user satisfaction, namely content, information accuracy, format, ease of use, and timeliness [6]. This research aims to determine how much influence each EUCS dimension has on user satisfaction with the Ajaib Alpha application.

2. Method

This section describes the research implementation steps in detail. The description includes the chosen quantitative approach, determination of population and sample, as well as development of questionnaire instruments as data collection tools. Furthermore, data analysis techniques are also discussed, consisting of instrument quality tests (validity and reliability), descriptive analysis, to structural model testing (PLS-SEM) that will be processed using Jamovi and WarpPLS software.

2.1. Data Types and Sources

2.1.1. Research Type and Approach
This research uses a descriptive quantitative approach, which aims to describe the level of user satisfaction with the Ajaib Alpha application based on the End User Computing Satisfaction (EUCS) model and to determine the influence of its dimensions on the User Satisfaction variable.

2.1.2. Population and Sample

The population in this study consists of all members of the Ajaib Alpha application user community, specifically those joined in online forums/communities with a total membership of **30,000** people.

To determine the representative sample size, researchers used the Slovin formula with an error level (margin of error) of 5%. The Slovin formula used is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Fig. 1: Slovin's formula

Where:
- n = sample size
- N = population size (30,000 people)
- e margin of error (0.05)

$$n = \frac{30.000}{1 + 30.000(0,05)^2} = \frac{30.000}{1 + 75} = \frac{30.000}{76} \approx 395$$

Fig. 2: Sample estimation

Therefore, the minimum sample size required in this study is 395 respondents. The sampling technique was conducted using non-probability sampling method with accidental sampling approach, where respondents voluntarily and coincidentally accessed the online questionnaire and met the criteria as active users of the Ajaib Alpha application.

2.1.3. Data Types and Sources

Data in this study consists of primary data obtained directly from respondents through questionnaire distribution via Google Forms, as well as secondary data collected from various literature such as journals, books, articles, and documentation relevant to the Ajaib Alpha application and EUCS theory.

2.2. Data Collection and Analysis Techniques

2.2.1. Data Collection Method

Data collection techniques were conducted by distributing online questionnaires, which contained statements based on the five EUCS dimensions. Each statement was assessed using a 5-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (5).

2.2.2. Operational Definition of Variables

The variables in this study are the EUCS dimensions, with indicators as follows:

Table 1: Operational Variable Definition Table

Dimension	Indicator	Scale
X – EUCS	Content, Accuracy, Format, Ease of Use, Timeliness (each with 3-4 indicators)	Likert
Y – User Satisfaction	General satisfaction, loyalty, willingness to recommend	Likert

2.2.3. Research Instrument

The instrument used in this study is a questionnaire, consisting of two parts:
1. Demographic data: Name, age, gender, duration of application use.
2. Core questions: Statements according to EUCS dimensions.

In addition to EUCS statements, the questionnaire also includes 3-4 statements to measure user satisfaction, such as:
1. I am satisfied using the Ajaib Alpha application for investment activities.
2. The Ajaib Alpha application meets my expectations as an investor.
3. I will continue to use the Ajaib Alpha application in the future.
4. Overall, I am satisfied with the performance of the Ajaib Alpha application.

2.2.4. Questionnaire Development

Table 2: Table of Questionnaire Development

No.	Dimension	Indicator	Questinnaire Statement
X1.1		Information relevance	Information in the Ajaib Alpha application helps with mutual fund investment activities.
	Content (X1)		
X1.2		User information needs	Information in the Ajaib Alpha application is appropriate for my needs as a user/investor.

X1.3		Information completeness	The Ajaib Alpha application provides complete information to support the transaction process.
X2.1		Calculation accuracy	The Ajaib Alpha application can perform calculations according to the formulas used accurately.
X2.2	Accuracy (X2)	Information accuracy	The Ajaib Alpha application provides accurate information.
X2.3		Information relevance	The Ajaib Alpha application provides responses according to what I need.
X3.1		Display neatness	The Ajaib Alpha application has a neat layout.
X3.2	Format (X3)	Information display clarity	The interface/design of the Ajaib Alpha application provides the information I need clearly.
X3.3		Aesthetics (color)	The Ajaib Alpha application interface has harmonious color combinations.
X4.1		Navigation ease	The Ajaib Alpha application is easy to use.
X4.2		Function comprehension	The Ajaib Alpha application is very user-friendly.
X4.3	Ease of Use (X4)	Usage comfort	The Ajaib Alpha application provides usage instructions that are easy to understand.
X4.4		Usage comfort	The Ajaib Alpha application has buttons with clear functions.
X5.1		*Update accuracy*	The Ajaib Alpha application provides information that is always up-to-date.
X5.2	Timeliness (X5)	System speed	The Ajaib Alpha application responds to my input quickly.
X5.3		Service speed	The Ajaib Alpha application admin provides service through the chat feature quickly and responsively.
Y1.1		Usage satisfaction	I am satisfied using the Ajaib Alpha application for investment activities.
Y1.2		Expectation fulfillment	The Ajaib Alpha application meets my expectations as an investor.
Y1.3	User Satisfaction (Y1)	Continuance intention	I will continue to use the Ajaib Alpha application in the future.
Y1.4		Overall satisfaction	Overall, I am satisfied with the performance of the Ajaib Alpha application.

2.2.5. Data Analysis Technique

Data analysis techniques in this study begin with descriptive analysis. This analysis is used to calculate the average score of each End-User Computing Satisfaction (EUCS) dimension and present the raw data in table and graph form for easy understanding.
Subsequently, inferential analysis is conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach using WarpPLS software. This technique is used to test causal relationships between the five EUCS dimensions and the user satisfaction variable. Before model testing, instruments are tested for validity and reliability through the Jamovi application.

2.2.6. Validity and Reliability Testing Technique

Total	Pearson's r	0.525	0.506	0.528	0.458	0.466	0.483	0.484	0.470	0.478	0.511	0.496	0.478	0.586	0.592	0.556	0.539	0.568
	df	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398
	p-value	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001

Fig. 3: Validity Test Results Table

The test results show that all statement items in each construct (Content, Accuracy, Format, Timeliness, Ease of Use, and User Satisfaction) have positive and significant correlation coefficient values to their construct total scores. All obtained p-values are below 0.05, with the majority below 0.001, indicating that these items are valid for use in measuring each variable.

Therefore, it can be concluded that all items in the questionnaire instrument meet validity requirements and are suitable for use in data collection for this research.

Reliability Analysis

Scale Reliability Statistics

	Cronbach's α
scale	0.849

[3]

Fig. 4: Reliability Test Results Table

The reliability test results show that Cronbach's Alpha value is 0.849, which is in the high reliability category. This means that the items in the questionnaire are mutually consistent and reliable for measuring user satisfaction with the Ajaib Alpha application based on EUCS dimensions and User Satisfaction.

2.3. Software Used for Analysis

In this study, researchers used two main software tools to support the data analysis process: Jamovi and WarpPLS.

First, Jamovi version 2.6 was used to conduct descriptive statistical analysis, instrument validity and reliability testing, and correlation data processing. Jamovi was chosen because it has an intuitive interface and supports various types of statistical analysis needed in quantitative research, such as Pearson's correlation analysis and Cronbach's Alpha calculations.

Second, WarpPLS was used specifically for testing the research conceptual model based on the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. WarpPLS was chosen because it can handle relationships between latent variables more flexibly, especially when data distribution is not normal or sample size is relatively limited. The use of WarpPLS helps in testing the feasibility of the conceptual model and the influence between constructs within the formulated theoretical framework.

With the use of both software tools, the analysis process in this study becomes more directed, accurate, and appropriate to the chosen methodological approach.

3. Results and Discussion

3.1. Descriptive Statistics

Descriptive statistics are used to provide an overview of respondents' perceptions of the indicators contained in the five dimensions of EUCS (End-User Computing Satisfaction) and the user satisfaction variable. This study involved 400 respondents, and all data collected were declared valid.

Measurements were made using a 5-point Likert scale, so the most appropriate measures of data centralization were the mean and standard deviation (SD). Additional statistical measures such as minimum, maximum, skewness, and kurtosis were used to examine the distribution of the data and its variation.

The following is a summary of the descriptive analysis results based on the data processed using Jamovi:

Kode	Indikator	Mean	SD	Min	Max	Skewness	Kurtosis	Variance	IQR
CON1	Content 1	3.82	0.95	1	5	-0.24	-0.79	0.90	2.00
CON2	Content 2	3.83	0.88	1	5	-0.17	-0.53	0.77	2.00
CON3	Content 3	3.86	0.96	1	5	-0.30	-0.78	0.93	2.00
ACC1	Accuracy 1	3.54	1.12	1	5	-0.11	-1.01	1.25	2.00
ACC2	Accuracy 2	3.52	1.11	1	5	-0.05	-1.04	1.23	2.00
ACC3	Accuracy 3	3.46	1.12	1	5	0.00	-1.05	1.25	2.00
FOR1	Format 1	3.47	1.11	1	5	-0.15	-1.01	1.23	2.00
FOR2	Format 2	3.55	1.08	1	5	-0.16	-1.09	1.17	2.00
FOR3	Format 3	3.47	1.12	1	5	-0.12	-1.04	1.25	2.00
TIM1	Timeliness 1	3.77	0.90	1	5	-0.18	-0.55	0.81	2.00
TIM2	Timeliness 2	3.77	0.91	1	5	-0.21	-0.58	0.83	2.00
TIM3	Timeliness 3	3.81	0.87	1	5	-0.23	-0.57	0.76	2.00
EOU1	Ease of Use 1	3.89	0.91	1	5	-0.37	-0.53	0.83	2.00
EOU2	Ease of Use 2	3.75	0.91	1	5	-0.25	-0.60	0.83	2.00
EOU3	Ease of Use 3	3.88	0.92	1	5	-0.34	-0.52	0.85	2.00
EOU4	Ease of Use 4	3.73	0.95	1	5	-0.28	-0.51	0.90	2.00
US1	User Satisfaction 1	3.79	0.55	2	5	-0.50	-0.15	0.30	1.00
US2	User Satisfaction 2	3.80	0.56	2	5	-0.51	-0.11	0.31	1.00
US3	User Satisfaction 3	3.79	0.54	2	5	-0.55	-0.10	0.30	1.00

Fig. 5: Table of Descriptive Statistics

3.1.1. EUCS Dimension Analysis Results

The five EUCS dimensions, namely Content, Accuracy, Format, Timeliness, and Ease of Use, each consist of several indicators. The analysis results show that all indicators in this dimension have an average value above 3.4, which indicates that user perceptions of the features of the Ajaib Alpha application are generally positive.

In the Content dimension, indicators CON1 to CON3 show an average value between 3.82 to 3.86 with a standard deviation between 0.88 to 0.96. This shows that the information provided by the application is considered quite helpful and in accordance with user needs.

The Accuracy dimension shows an average of 3.46 to 3.54, with a standard deviation of around 1.11 to 1.12. Although it is quite good, this dimension is the lowest among the other dimensions, so it can be a concern for developers to improve the accuracy of information.

For the Format dimension, the mean scores range from 3.47 to 3.55 with a standard deviation ranging from 1.08 to 1.25. The appearance of the application is considered clear enough by users, but visual consistency and aesthetics still have room for development.

Meanwhile, the Ease of Use dimension showed the highest scores with an average of 3.73 to 3.89. The low standard deviation on the indicators of this dimension indicates the consistency of user responses. Users find the Ajaib Alpha application easy to understand and use, including in navigating features and understanding information.

Overall, the Ease of Use and Timeliness dimensions are the two aspects with the highest perception, followed by Content, Format, and Accuracy. The three satisfaction indicators (US1-US3) have an average of about 3.79 to 3.80, with an SD of about 0.54 to 0.56. This reflects that the majority of users are satisfied with the Ajaib Alpha app in general.

3.1.3. User Satisfaction Variable

The three satisfaction indicators (US1-US3) have an average of about 3.79 to 3.80, with an SD of about 0.54 to 0.56. This reflects that the majority of users are satisfied with the Ajaib Alpha app in general.

3.1.4. Measures of Data Distribution

In addition to the mean and standard deviation, other measures of distribution such as range, interquartile range (IQR), and variance were also analyzed. The results show that the range value for most indicators is 4, with an IQR between 1.00 and 2.00, indicating moderate variation in respondents' perceptions. The largest variance was found in indicator ACC3 (variance = 1.25), while the smallest was in indicator US3 (variance = 0.30). Overall, the data distribution is still within reasonable limits and supports the consistency of the average results discussed earlier.

3.1.5. Data Distribution

The skewness values of all indicators range from -0.55 to +0.05, indicating that the data has a distribution that is close to symmetrical. Meanwhile, the kurtosis value is in the range of -1.3 to -0.1, which indicates that the data distribution tends to be flat (platykurtic), but still in the normal category. Thus, the data meets the assumption of normal distribution and is suitable for further inferential analysis.

Overall, the results of descriptive statistics show that user perceptions of the Ajaib Alpha application are positive, with fairly high average values in most dimensions. The Ease of Use and Timeliness dimensions show the best perception, while Accuracy and Format have room for improvement.

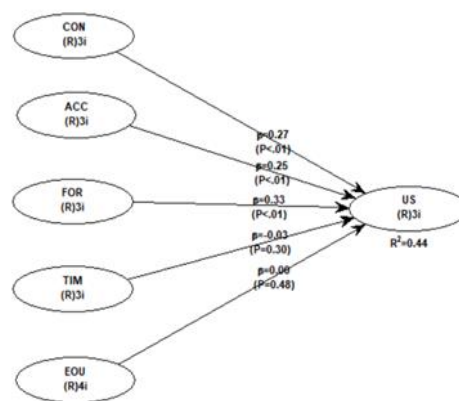### 3.2. Inferential Statistics

Fig. 6: Structural Model Results of SEM-PLS Analysis

Inferential statistics are used to test the relationship between variables in this research model, namely the five dimensions of EUCS (Content, Accuracy, Format, Timeliness, Ease of Use) to the User Satisfaction variable. The analysis was conducted using the Structural Equation Modeling approach with the Partial Least Square (SEM-PLS) method.

The results of the structural model analysis show the coefficient of determination (R^2) value of 0.44, which means that 44% of the variation in user satisfaction can be explained by the five dimensions of EUCS. The remaining 56% is influenced by other variables outside this model. The following are the results of testing the relationship between variables:

Jalur Pengaruh	Koefisien Jalur (β)	Nilai P	Keterangan
Content → User Satisfaction	0.27	< 0.01	Signifikan
Accuracy → User Satisfaction	0.25	< 0.01	Signifikan
Format → User Satisfaction	0.33	< 0.01	Signifikan
Timeliness → User Satisfaction	0.03	0.30	Tidak Signifikan
Ease of Use → User Satisfaction	0.00	0.48	Tidak Signifikan

Fig. 7: Hypothesis Test Results

From these results it can be concluded that the Content, Accuracy, and Format variables have a significant effect on User Satisfaction. On the other hand, Timeliness and Ease of Use have no significant effect.

This finding indicates that to increase user satisfaction of the Ajaib Alpha application, developers need to focus more attention on the quality of content, accuracy of information, and the appearance and format of the application presentation. The skewness value of all indicators ranges from -0.55 to +0.05, which indicates that the data has a distribution that is close to symmetrical.

Meanwhile, the kurtosis value is in the range of -1.3 to -0.1, which indicates that the data distribution tends to be platykurtic, but still in the normal category. Thus, the data meets the assumption of normal distribution and is suitable for further inferential analysis.
Overall, the results of descriptive statistics show that user perceptions of the Ajaib Alpha application are positive, with fairly high average values in most dimensions. The Ease of Use and Timeliness dimensions show the best perception, while Accuracy and Format have room for improvement.

3.3. Interpretation of Results

Based on the results of inferential statistical analysis using SEM-PLS, it is known that not all EUCS dimensions have a significant effect on user satisfaction. Of the five dimensions tested, only Content, Accuracy, and Format have a significant effect on User Satisfaction.
The Content dimension has a significant influence because the information provided by the Ajaib Alpha application is considered appropriate and helps users' investment activities. The same thing is also shown by the Accuracy dimension, where the accuracy and correctness of data is an important indicator in increasing satisfaction.
Meanwhile, Format, which includes the presentation of visual information such as application layout and design, is also proven to affect satisfaction. This shows that users value the importance of a clear and attractive interface in using investment applications.
In contrast, the Timeliness and Ease of Use dimensions do not have a significant effect. This may be because these two aspects are already considered good by the majority of respondents, so they are not a differentiating factor in influencing satisfaction levels.
In general, these results indicate that to increase user satisfaction, app developers need to prioritize the quality of content, accuracy, and format of information presentation as key aspects in further development.

4. Conclusions and Suggestions

4.1. Conclusions

Based on the results of research conducted on users of the Ajaib Alpha application using the EUCS and SEM-PLS approaches, it can be concluded that the Content, Accuracy, and Format dimensions have a significant influence on User Satisfaction. Meanwhile, the Timeliness and Ease of Use dimensions do not show a significant effect in this model.
The coefficient of determination (R^2) value of 0.44 indicates that the EUCS model is able to explain 44% of the variation in user satisfaction. Thus, information quality and visual presentation are key factors in creating satisfaction with digital investment applications.

4.2. Suggestions

Application developers are advised to improve the quality of content and accuracy of information displayed in the application. This is important so that the information presented is more relevant, reliable, and in accordance with user needs. Data accuracy can also increase the credibility of the app and build user trust in the long run.
In addition, the visual presentation of information also needs to be considered. Neat layout, consistency in design, and ease of reading data are important aspects in creating a good user experience. An intuitive design will help users understand information quickly and reduce the potential for confusion when accessing features in the application.
Although the Timeliness and Ease of Use variables did not show a significant effect in this study, both still need to be maintained as minimum service standards. Both aspects are basic elements in ensuring the application can be accessed easily and provide timely information.
For future research, it is recommended to consider other variables outside the EUCS framework. This aims to explain the remaining variation in the level of user satisfaction that has not been covered in this model, so as to provide a more comprehensive picture of the factors that influence application user satisfaction.

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