ANALYSIS OF YOUTH SATISFACTION LEVELS WITH MAXIM APPLICATION IN JAKARTA USING THE EUCS APPROACH

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Abstract

User satisfaction can impact reuse and foster user loyalty. If users feel dissatisfied, they may potentially switch to other competitors. This can impact the sustainability of the company in the future, particularly for Maxim, an online transportation company. Therefore, it is crucial for the company to understand user satisfaction levels to improve specific aspects and achieve desired user satisfaction. This research aims to determine the satisfaction levels of young generation with the Maxim app in Jakarta using the End User Computing Satisfaction (EUCS) approach. EUCS is used to measure the satisfaction of end users with the Maxim application system. An online questionnaire was distributed through Google Form, gathering data from 100 respondents who have used the Maxim app in Jakarta. The data was analyzed using the Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA). From the CSI calculation, it was found that the level of satisfaction of young generation users on the Maxim application in Jakarta obtained the "Satisfied" criteria. Furthermore, IPA results indicated that improving the effectiveness of the screen display and ensuring prompt driver allocation in the app were prioritized for Maxim. Easy menu navigation, user-friendly interface design, easy-to-use features, and displaying real-time information in the app were identified as aspects to maintain, as users rated these aspects as important and satisfied. Thus, this research is expected to assist the company in improving user satisfaction by identifying areas for improvement to increase the effectiveness and quality of user experience when using the Maxim app.

1. Introduction

Online transportation has become the second most preferred mode of transportation for Indonesians after private vehicles (Polling Institute, 2022). Initially, users chose online transportation services for their affordability. However, over time, preferences have shifted towards safety and time efficiency (INDEF, 2022). Additionally, the ease of use is another reason why users opt for online transportation (Yonatan, 2023). This growing interest in online transportation among Indonesians has led to continuous market growth and development. According to CNBC Indonesia (2020), it is estimated that there are over 21.7 million online transportation users in Indonesia (Astutik, 2020). This presents a lucrative business opportunity, attracting many online transportation companies to explore the Indonesian market, including Maxim.

Maxim is an online transportation application that offers a variety of services, including passenger transportation, goods delivery, food delivery, massage services, and cleaning services (Maxim, 2023). Maxim is committed to providing the best services at affordable prices. However, despite this claim, Maxim has faced various user complaints after using the application. One notable complaint, highlighted on the Media Konsumen website (2022), involves users criticizing Maxim's fare system, likening it to a taxi meter, as the final price does not match the initial quoted price in the app (Waryadi, 2022).

These issues indicate user dissatisfaction, which can decrease the overall user satisfaction with the application. If users are dissatisfied, they may switch to competitors due to the negative experiences they have had with Maxim. This can impact the future sustainability of the Maxim application. Therefore, it is crucial for the company to understand the level of user satisfaction to make improvements in certain aspects and achieve the desired user satisfaction. To determine the level of user satisfaction with the Maxim application in Jakarta, this study used the End User Computing Satisfaction (EUCS) approach, developed by Doll and Torkzadeh (Pratomo et al., 2023). The EUCS approach measures user satisfaction across five dimensions: content, accuracy, format, ease of use, and timeliness. The use of EUCS aims to measure user satisfaction based on their experience while using the information system (Puspitasari et al., 2021).

2. Literature Review

2.1 User Satisfaction

According to Immawati and Rauf (2020), satisfaction is a value given as a level of pleasure felt by users regarding the fulfillment of their consumption needs concerning the characteristics or special features of a product or service. Zar et al. (2023) state that increasing user satisfaction encourages users to continue using the service. As user satisfaction with a product or service increases, users are likely to become more loyal to that product or service (Putra & Raharjo, 2021).

Siyal et al. (2021) suggest that user satisfaction can be a determinant of repeat usage intentions; therefore, marketers should focus on user satisfaction, which leads to user loyalty and recommendations. Furthermore, user satisfaction plays a crucial role for business operators because it helps maintain the presence, sustainability, and growth of a company in the future (Waworundeng et al., 2022). It can be state that user satisfaction is a measure of the users' feelings of satisfaction or dissatisfaction resulting from their use of a product or service. High user satisfaction can lead to repeat usage and loyalty, thereby directly impacting the existence of a company.

2.2 End User Computing Satisfaction

End User Computing Satisfaction (EUCS) is a theory developed by Doll and Torkzadeh to measure user satisfaction by comparing expectations and realities of an information system (Puspitasari et al., 2021). In measuring end-user satisfaction, the EUCS theory focuses on user satisfaction through five dimensions: content, accuracy, format, ease of use, and timeliness (Pratomo et al., 2023). End user computing satisfaction has been widely used as a benchmark to evaluate the success of an information system (Pillai et al., 2021).

According to Pramudito et al. (2023), the success of an application is not only measured by how well the information system functions to provide the required information, but also by the end-user satisfaction with the performance of the application. This is crucial for service providers in the form of information systems to understand the satisfaction experienced by users after using the developed application.

3. Material and Method

3.1 Design Study

This study uses a quantitative descriptive approach, employing a survey method with a cross-sectional design. The survey was conducted by filling out questionnaires through Google Forms to collect data related to the level of user satisfaction with the Maxim application in DKI Jakarta.

3.2 Data Analysis

The sample in this study was determined using Cochran's formula. Subsequently, instrument testing was conducted through validity and reliability tests on all collected questionnaire data using SPSS. The validity test measures whether a questionnaire is valid or not (Hanum et al., 2024). A research instrument is considered valid if it has a positive value and the calculated r value greater than the table r value at a 5% significance level with a two-tailed test (Riskijah, 2020). Additionally, the reliability test is used to measure and assess the consistency of the questionnaire, indicating that the questionnaire is reliable for measuring the research variables (Delpiero & Istriani, 2023). An instrument is deemed reliable if Cronbach's Alpha is greater than 0.60; conversely, if Cronbach's Alpha is less than 0.60, it is considered unreliable (Ratnasari et al., 2020). The data was then analyzed using the Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA) methods.

3.2.1 Customer Satisfaction Index

The Customer Satisfaction Index (CSI) analysis is a method used to measure the level of user satisfaction based on specific items using an index (Nispi et al., 2023). This method is used to determine the overall user satisfaction level by considering the importance and satisfaction levels of a product. In applying the CSI method, the questionnaire uses a Likert scale for Importance (Table 3.1) and a Likert scale for Satisfaction (Table 3.2).

Table 3.1 Likert Scale Importance

Description	Likert Scale
Very Important	5
Important	4

Quite Important	3
Not Important	2
Very Unimportant	1

Table 3.2 Likert Scale Satisfaction

Description	Likert Scale
Very Satisfied	5
Satisfied	4
Quite Satisfied	3
Not Satisfied	2
Very Dissatisfied	1

Subsequently, to calculate the magnitude of the CSI value, the following steps can be taken:

a. Calculate the Mean Importance Score (MIS) and the Mean Satisfaction Score (MSS). The formula for calculating MIS and MSS is:

$$MIS = \left[\frac{[\sum_{i=1}^{n} Y_i]}{n}\right]$$

Explanation:
Xi = Satisfaction score of attribute Y for respondent i
n = Number of respondents

$$MSS = \left[\frac{\sum_{i=1}^{n} X_i}{n}\right]$$

Explanation:
Xi = Satisfaction score of attribute X for respondent i
n = Number of respondents

b. Calculate the Weight Factor (WF). The WF value is obtained by dividing the MIS value of each item by the total MIS value of all items.

c. Calculate the Weight Score (WS). The WS value is obtained by multiplying the WF by the average satisfaction score.

d. Calculate the Weight Total (WT). The WT value is obtained by summing the Weight Scores (WS).

e. Calculate the Customer Satisfaction Index (CSI).

$$CSI = \left[\frac{WT}{HS(Y)} \times 100\%\right]$$

The CSI calculation results can determine the level of user satisfaction based on the criteria guidelines for user satisfaction levels, as referenced by Maqhfirah et al. (2023), shown in Table 3.3.
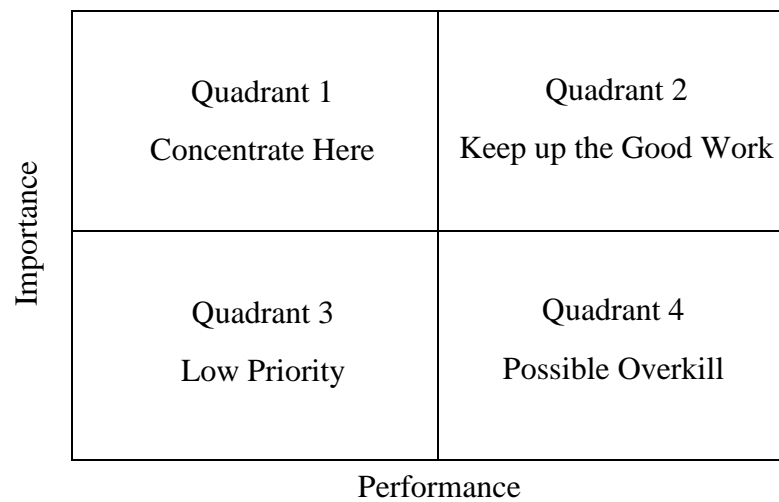
Table 3.3 CSI levels criteria

CSI Value (%)	CSI Description
0- 34.99%	Not Satisfied
35% - 50.99%	Less Satisfied
51% - 65.99%	Satisfied Enough
66% - 80.99%	Satisfied
81% - 100%	Very Satisfied

3.2.2 Importance Performance Analysis

Importance Performance Analysis (IPA) is used to identify which attributes are most important and most satisfying to users or which attributes have high importance but low satisfaction and need improvement (Nguyen et al., 2022). IPA is implemented using a Cartesian diagram classified into

four quadrants, where the level of importance is represented by the vertical axis and the level of satisfaction by the horizontal axis (Nispi et al., 2023), as shown in Figure 3.1

Quadrant 1 Concentrate Here	Quadrant 2 Keep up the Good Work
Quadrant 3 Low Priority	Quadrant 4 Possible Overkill

Performance

Figure 3.1 Importance Performance Analysis

4. Result and Discussion

4.1 Research Instrument Test

The validity test was conducted using Pearson's Product Moment formula with SPSS 25 at a 5% significance level, with the critical value of r table set at 0.195. The results showed that both the importance and satisfaction values were greater than the r table of 0.195 at a 5% significance level. It can be concluded that all statements are valid and can be used in this study.

The reliability test was performed using Cronbach's Alpha formula with SPSS 25. A research instrument is considered reliable if Cronbach's Alpha is greater than 0.60. The results indicated that the importance had a Cronbach's Alpha of 0.928, which is greater than 0.60. Similarly, the satisfaction had a Cronbach's Alpha of 0.917, also greater than 0.60. Therefore, it can be said that the research instruments are reliable.
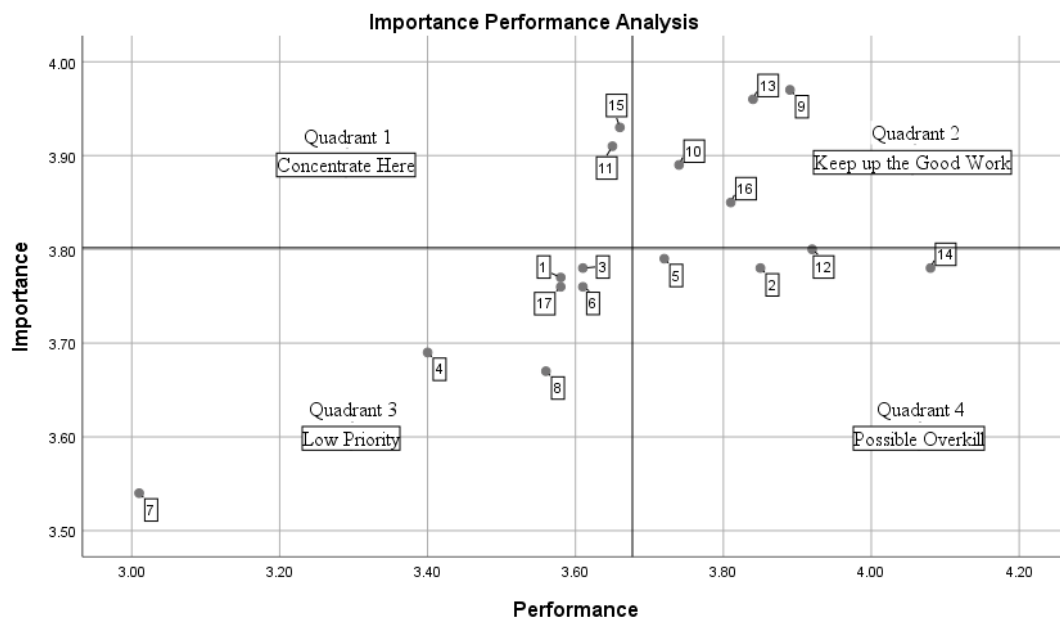
4.2 Customer Satisfaction Index

Table 4.1 Customer Satisfaction Index

Dimention	Item	Level of Importance		Level of Satisfaction		WF	WS	CSI (%)
		sum of values	MIS	sum of values	MSS			
Content	Item 1	377	3,77	358	3,58	5,83	20,88	
	Item 2	378	3,78	385	3,85	5,85	22,52	83,92%
	Item 3	378	3,78	361	3,61	5,85	21,11	
	Item 4	369	3,69	340	3,4	5,71	19,41	
Accuracy	Item 5	379	3,79	372	3,72	5,86	21,81	
	Item 6	376	3,76	361	3,61	5,82	21,00	59,3%
	Item 7	354	3,54	301	3,01	5,48	16,49	
Format	Item 8	367	3,67	356	3,56	5,68	20,22	
	Item 9	397	3,97	389	3,89	6,14	23,89	88,7%

	Item 10	389	3,89	374	3,74	6,02	22,51	
	Item 11	391	3,91	365	3,65	6,05	22,08	
Ease of Use	Item 12	380	3,8	392	3,92	5,88	23,05	
	Item 13	396	3,96	384	3,84	6,13	23,53	68,84%
	Item 14	378	3,78	408	4,08	5,85	23,86	
Timeliness	Item 15	393	3,93	366	3,66	6,08	22,26	
	Item 16	385	3,85	381	3,81	5,96	22,70	65,79%
	Item 17	376	3,76	358	3,58	5,82	20,83	
Mean Score			3,80		3,67		21,66	
Total			64,63		62,51		368,15	
CSI (%)								73%

The Customer Satisfaction Index (CSI) value obtained is 73%. According to the user satisfaction criteria guidelines in Table 3.5, this CSI value falls within the "Satisfied" range (66%-80.99%). Thus, based on the results, Maxim application users in Jakarta are satisfied with the application's information system, including aspects such as content, accuracy, format, ease of use, and timeliness.

4.3 Importance Performance Analysis

Figure 4.1 Importance Performance Analysis

a. Quadrant 1: In Quadrant 1, item 11 "effective application screen display" and item 15 "quickly finding a driver" are priorities for improvement because, according to users, they are important but have low satisfaction levels. Therefore, items in this quadrant need to be enhanced.

b. Quadrant 2: In Quadrant 2, item 9 "menu is easy to understand", item10 "design facilitates user experience", item 13 "features are easy to use", and item 16 "displays up-to-date information" should be maintained in the Maxim application as users find these aspects both important and satisfying.

c. Quadrant 3: In Quadrant 3, item 1 "information is easy to understand", item 3 "information for tracking orders", item 4 "completeness of features", item 7 "application is error-free", item 8 "attractive design", and item 17 "responsive

application" are considered to have low levels of importance and satisfaction. Therefore, Maxim does not need to prioritize these items.

d. Quadrant 4: In Quadrant 4, item 2 "availability of relevant information", item 5 "appropriate output", item 12 "ease of interaction", and item 14 "ease of ordering" are in a low importance but high satisfaction category. This indicates that these items are already satisfying users and may be considered excessive. Maxim can focus on other items that require more improvement.

5. Conclusion, Implication, and Recommendation
5.1 Conclusion

Based on the data processing and analysis in this study, it can be concluded that the satisfaction level of the younger generation with the Maxim application in Jakarta, as measured by the Customer Satisfaction Index (CSI), falls into the "Satisfied" category, supported by the format and content. Additionally, the Importance Performance Analysis (IPA) results indicate that attributes with low satisfaction and high importance (Quadrant 1), such as the effectiveness of the screen display and the speed of finding a driver, should be prioritized for improvement. Meanwhile, attributes with both high satisfaction and high importance (Quadrant 2), including easy-to-understand menus, user-friendly design, easy-to-use features, and up-to-date information, should be maintained.

5.2 Implication
5.2.1 Theoretical Implications

This study demonstrates that the dimensions of content, accuracy, format, ease of use, and timeliness can be used as parameters to measure user satisfaction with online transportation applications. This indicates that these dimensions remain relevant and effective in analyzing user satisfaction to this day. As such, they can assist other research in understanding the End User Computing Satisfaction (EUCS) approach applied to measure user satisfaction with applications. The data analysis methods used in this study include the Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), and a detailed examination of the importance and satisfaction levels of younger users of the Maxim application in Jakarta.

5.2.2 Practical Implications

The findings of this study can serve as an evaluation tool for Maxim to understand the level of user satisfaction with the Maxim application. They can also assist relevant parties in identifying areas that need improvement to enhance the effectiveness and quality of the user experience with the Maxim application. The aspects that need to be improved are as follows:

a. Format Dimension: The aspect "The screen display of the Maxim application is very effective to use" should be prioritized for improvement because users find it important but are not satisfied with it. Relevant parties are encouraged to enhance this aspect to optimize the application's performance.

b. Timeliness Dimension: The aspect "Finding a driver quickly through the Maxim application" should be prioritized for improvement as users consider it important but are dissatisfied. Relevant parties should work on improving this aspect to ensure users do not experience delays in

finding a driver when making reservations through the Maxim application.

In addition to the aspects prioritized for improvement, several aspects should be maintained based on the Importance Performance Analysis results, such as:

a. Format Dimension: The aspects "All menus in the Maxim application are easy to understand" and "The design of the Maxim application facilitates user experience" are deemed important and satisfying by users. Therefore, these aspects related to menu clarity and user-friendly design should be maintained.
b. Ease of Use Dimension: The aspect "Features in the Maxim application are easy to use" is important and satisfying according to users. Thus, the ease of use of the application's features should be preserved.
c. Timeliness Dimension: The aspect "The Maxim application displays up-to-date information" is important and satisfying to users. Hence, maintaining the provision of current information in the application is crucial.

5.3 Recommendation

It is hoped that future research will ensure that the distribution of questionnaires is done evenly across all targeted demographics using a stratified random sampling technique. The goal is to ensure that each demographic group is well-represented in the study, so the results accurately reflect the characteristics of each demographic group. Additionally, future research should consider integrating research approaches, such as combining the EUCS and HOT-Fit approaches, to measure user satisfaction more broadly and in greater depth, as demonstrated by Puspitasari et al. (2021). Furthermore, future studies should use a larger and more representative sample size to obtain more accurate results, similar to the study by Ali et al. (2022), which used 531 respondents to measure satisfaction with online transportation services.

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