CUSTOMER SATISFACTION LEVEL ANALYSIS OF E-COMMERCE SHOPEE USING DELON AND MCLEAN METHODS

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Abstract Shopee is an E-commerce that provides various media for selling products to meet people's needs such as fashion, household appliances, and others. The intense competition with the emergence of several other E-commerce sites such as Tokopedia, Lazada, Buka Lapak, Elevenia, Matahari Mall, Blibli and others, which offer similar quality and more attractive promos can change the attention of customers. Therefore, customers are increasingly confused about which E-commerce is better in terms of the quality offered by E-commerce. The purpose of this study is to see the level of customer satisfaction with E-commerce shopee in Pekanbaru and see customer satisfaction in each variable in the Delon and Mclean Method. The results of this study indicate that 79 shopee E-commerce customers in Pekanbaru City stated that they were very satisfied with the application. Of the 9 hypotheses proposed in this study, all of them are correlated. And the results of the reliability test there are also 1 variable that has perfect reliability, namely customer satisfaction, meaning that customer satisfaction has better quality than other variables.

Keywords: Shopee, E-commerce, Delon and Mclean, Customer Satisfaction
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1. Introduction

The Industrial Era 4.0 is a condition where various fields use technology. This situation makes people's lifestyles become modern. In the industrial era 4.0, people often use technology to make transactions rather than making cash payments as is usually done. Every company always offers its advantages to consumers so that they can always survive. The more attractive, easy, and profitable the sales system is for consumers, the greater the profits that the company gets. Therefore, the sales system implemented by the company is the most important thing for the company to pay attention to because the sales system is inseparable from the development of information technology. The application of this technology can support the sales system.

Business in the virtual world is currently very much in demand by the public in the form of Online Shops and Online buying and selling transactions (E-commerce). E-commerce brings enormous business opportunities in this era. E-commerce in Indonesia is very diverse, one of which is Shopee, Shopee is an E-commerce that is a place for various media selling products to meet people's needs such as Fashion, Household Appliances, and others. Shopee is a shopping application that allows customers to browse, shop, and sell various types of products.

Tight competition with the emergence of several other E-commerce such as Tokopedia, Lazada, BukaLapak, Elevenia, MatahariMall, Blibli and others, which offer similar quality and more attractive promos can change the attention of customers. Therefore, customers are increasingly confused to choose which E-commerce is better in terms of the quality offered by the E-commerce.

The Delon and Mclean method is used to measure the level of success of the information system created by Delon and Mclean. The Delon and Mclean method has been applied to the measurement of the level of utilization and user satisfaction on the web where the results have proven that the success of information systems is influenced by the quality of information systems.

2. Literature review

In conducting this research, the researcher took several references from previous research. Previous research is used as a reference or reference in conducting research. The following is a summary of previous research that has been carried out as a reference in conducting this research as follows:

Research entitled Delon and Mclean Methods in consumer satisfaction with shopee applications, this journal was researched by Yuyun Yuningsih in June 2019. The purpose of this study was to analyze the variables in the Delon and Mclean methods, namely system quality, information quality, service quality, users, user satisfaction, and net benefits. In addition to using the Delon and Mclean methods, this research also uses the SEM (Structural Equation Modeling) method. Based on the tests conducted, we can see that Information Quality has a positive effect on user satisfaction, and user satisfaction has a positive effect on users and users have a positive effect on net benefits.

Akbar Rismayadi, Dede Kartika Dewi, Iedam Fardian Anshori, in August 2020. This study aims to see the extent of the relationship between the variables in the Delon and Mclean methods on the satisfaction of ShopeePayLater users in the city of Bandung and to see the level of customer satisfaction with respect to customer satisfaction. ShopeePayLater Using the Delon and Mclean Methods. The sampling technique used in this research is the Convinience Sampling Approach. The results of this study indicate that the variables of system quality, information quality, service quality, affect user satisfaction.

Research with the title Application of the Delon and Mclean success model on the website of the Faculty of Computer Science, University of Briwijaya, this research was researched by Lely Hapsari Trihandayani, Ismarta Aknurana, Yusi Tyroni Marsito, in December 2018. The purpose of this research is to analyze and see the level of success of the Faculty Website Computer Science. This study uses the Delon and Mclean methods in order to see how the success rate of the Website of the Faculty of Computer Science is moderate or moderate. The results of this study indicate that the FILKOM website has a sufficient or moderate level of success so that the FILKOM website requires improvements to produce information and provide better services.

The research entitled Analysis of the success of the M-Tix Cinmea 21 cinema ticket booking mobile application based on the perspective of users in the city of Malang using the Delon and

Mclean Secces model approach. This research was examined by Yugo Fairnando Augusto, Aitsy Rachmadi, Admajaya Dwi Herlambang in January 2019. Objectives this research is this research aims to see the level of success of the M-Tix Cinema 21 Mobile application and provide input for system improvements based on the Delone Method and the Mclean Success Model. The sampling technique in this study is the purposive sampling technique. The results of this study prove that the success rate of the Mobile M-Tix Cinema 21 application on the variable Night System Quality is in the high category (75.8)

Research with the title Analysis of the Success of Student Information Systems (SIKMA) with the Delone and Mclean Model approach, this research was investigated by FS Rahayu, R Apriliyanti, YSPW Putro, in August 2018. This study aims to measure the effect of system quality, information quality and service quality. with user satisfaction, users and net benefits from using the information system. This research uses the Delone and Mclean method. This study uses 10 hypotheses to be tested using the Model

Structural Equation Modeling (SEM), and of the 10 tested hypotheses, five were accepted and five were rejected. Based on these tests, it can be concluded that SIKMA has not been fully successful. Therefore, it is necessary to improve system quality, service quality and information quality in order to provide satisfaction to users.

Research entitled Development of a web-based survey questionnaire application using Likert and Guttman scales, this journal was researched by Viktor Hanrianus Pranatawijaya, Widiatry, Ressa Priskila, Putu Bagus Adidyana Anugrah Putra in November 2019. The purpose of this study was to design and build a survey questionnaire application web-based using the Likert and Guttman scales. The method used in this study is the Waterfall method with the stages of analysis, design, implementation, testing and maintenance. The results of this study indicate that with the application of this web-based questionnaire, the data collection process becomes more effective and efficient and the application of this questionnaire has been integrated with the database so that data processing in making reports becomes easier

3. Methods

This research uses the Delon and Mclean method. In this method the researcher uses six variables including system quality, information quality, service quality, users, user quality and net benefits. The target of this research is customers who own and use Shopee E-commerce in Pekanbaru City. The number of population in this study is unknown and to determine the research sample, the researcher uses the Lemeshow formula because this Lemeshow formula can calculate the number of samples in the unknown population. The number of samples obtained by using the Lemeshow formula is 100 customers.

The data for this study was obtained from the distribution of questionnaires containing questions regarding customer satisfaction with Shopee E-commerce in Pekanbaru City using the Delon and MClean methods which were filled out by customers who have and use the Shopee application in Pekanbaru City. The data obtained will be processed by researchers with the help of the IBM SPSS version 26 application.
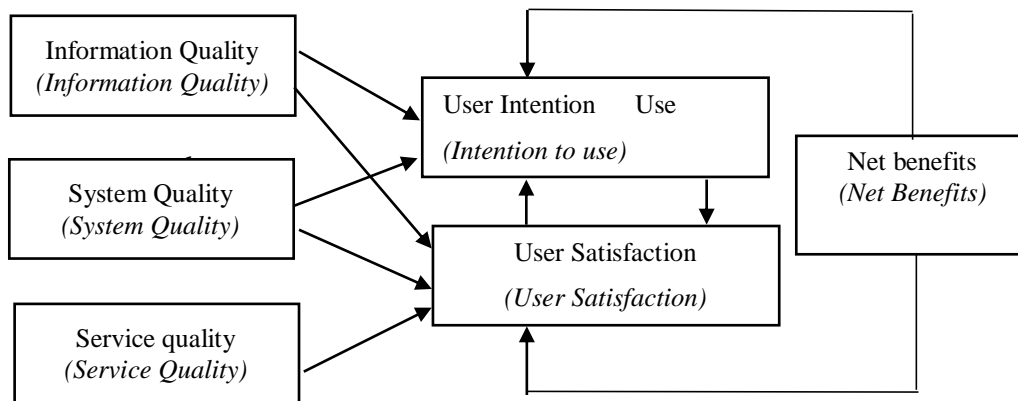
Source: (Delon & Mclean, 2004)

4. Results and Discussion

In the Big Indonesian Dictionary (KKBI) satisfaction can be interpreted as a feeling of satisfaction, pleasure and relief for someone because consuming a product or service has received good service or service. Test the level of customer satisfaction with Shopee's E-commerce in the city of Pekanbaru. The research used in this study is quantitative, so the researchers made a Likeart scale model using five options to determine the level of customer satisfaction with Shopee E-commerce which consists of:

Table 1 Shopee E-commerce Customer Satisfaction Level

MARK	DESCRIPTION
0 – 20	Strongly Disagree (STS)
21 – 40	Disagree (TS)
41 – 60	Neutral (N)
61 – 80	Agree (S)
81 – 100	Strongly Agree (SS)

a. Statistics Information Respondents

Table 2 Respondent Statistics

N	Valid	100
	missing	0

Information:
N = the number of respondents
Valid = 100, meaning that there are 100 respondents on the value variable that have valid data.
Mising = 0, it means that there are 0 respondents in the variable whose value has 0 data.

b. Total Information of Respondents

Table 2 Overall Information of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	2.0	2.0	2.0
	Agree	19	19.0	19.0	21.0
	Strongly agree	79	79.0	79.0	100.0
	Total	100	100.0	100.0	

Based on the table, it can be seen that there are three choices, namely Neutral, Agree, strongly Agree. Data for Neutral has a number of 2 respondents, data for Agree has a number of 19 respondents, for data Strongly Agrees has a number of 79 respondents and there is no data that answers Disagree and Strongly Disagree. So it can be concluded based on the data above which has the highest number of respondents, namely the Strongly Agree criteria.
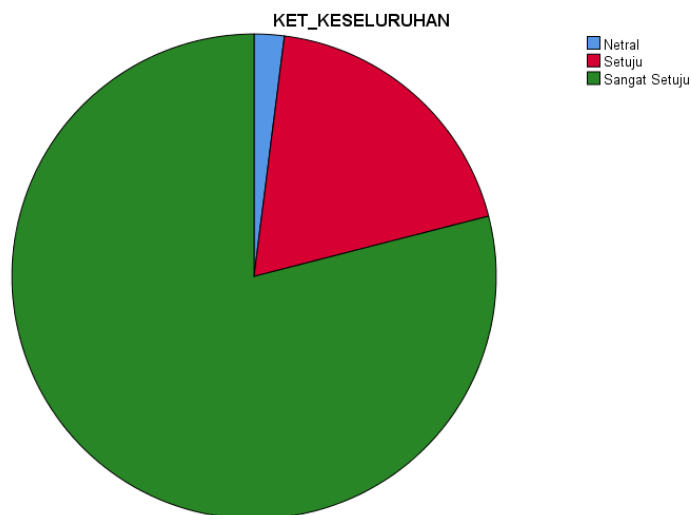
Figure 1 Overall Description of Respondents

Discussion of the results obtained: The method used in this study is the Delon and McLean method where this method is used to measure the level of system success. The Delon and McLean method is a method that has several variables that affect the success of a system.

The following variables are used in the Delon and McLean method:
1. System Quality: How does the quality of the system affect your satisfaction with the Shopee Mobile application?
2. Quality of information: How does the quality of information affect your satisfaction with the Shopee mobile application?
3. Service Quality: How does service quality affect your satisfaction with the shopee mobile application?
4. User: How does usage affect your satisfaction with shopee mobile application?
5. User Satisfaction: How are you satisfied with the shopee mobile application?

6. Quality of use: How do net benefits affect your satisfaction with the shopee mobile application?

B. Research result
1. Data analysis

In this study, the object of research is E-Commerce Shopee, while the subject of this research is customers who use e-commerce shopee. The population of this research is customers who use Shopee E-commerce in Pekanbaru City, where the customers who become the sample are 100 customers.

2. Research Description

This research was conducted to determine the level of customer satisfaction with Shopee E-commerce in Pekanbaru City. In this study, researchers chose to use the Delon and Mclean method. In this method the researcher uses six variables including system quality, information quality, service quality, users, user quality and net benefits.

This research started from October 6, 2019 until it was finished. The target of this research is customers who own and use Shopee E-commerce in Pekanbaru City. The number of population in this study is unknown and to determine the research sample, the researcher uses the Lemeshow formula because this Lemeshow formula can calculate the number of samples in the unknown population. total

The sample obtained by using the Lemeshow formula is as many as 100 customers. The data for this study were obtained from distributing questionnaires containing questions regarding customer satisfaction with Shopee E-commerce in Pekanbaru City using the Delon and MClean Methods filled in by customers who have and use the Shopee application in Pekanbaru City. The data obtained will be processed by researchers with the help of the IBM SPSS version 26 application.

1. Validity test

Validity test was carried out in this study to determine the extent to which the accuracy and accuracy of each statement item in the questionnaire was valid or invalid.

Table 3 Validation Criteria

Criteria		Conclusion
r count > r table	Sig. <a = 0.05	Valid
r count < r table	Sig. > a = 0.05	Invalid

Determination of r table using the following formula:

$$Df = N - 2$$

Information:
Df – degree of freedom
N = Number of samples
In this study N = 100, so
Df =N – 2
100 – 2
98

The value of df can be seen as R with 0.05, namely df 98 = 0.196. The results of the validation test can be seen in the table below

Table 4 Validation Test Results

Variable	R Count	R Table	Information
System Quality			
X1.1	0.874	0.196	Valid
X1.2	0.870	0.196	Valid
X1.3	0.790	0.196	Valid
X1.4	0.818	0.196	Valid
X1.5	0.869	0.196	Valid
Information Quality			
X2.1	0.639	0.196	Valid
X2.2	0.803	0.196	Valid
X2.3	0.815	0.196	Valid
X2.4	0.811	0.196	Valid
X2.5	0.739	0.196	Valid
Service Quality			
X3.1	0.708	0.196	Valid
X3.2	0.848	0.196	Valid
X3.3	0.895	0.196	Valid
User			
Y1.1	0.408	0.196	Valid
Y1.2	0.889	0.196	Valid
Y1.3	0.819	0.196	Valid
User Satisfaction			
Y2.1	0.871	0.196	Valid
Y2.2	0.858	0.196	Valid
Y2.3	0.863	0.196	Valid
Y2.4	0.906	0.196	Valid
Y2.5	0.868	0.196	Valid
Net Benefits			
Y3.1	0.866	0.196	Valid
Y3.2	0.828	0.196	Valid
Y3.3	0.811	0.196	Valid
Y3.4	0.839	0.196	Valid
Y3.5	0.757	0.196	Valid

Based on the test results in the table above, all R count > from the R table value, it can be concluded that the statement items used in this research questionnaire are valid.

2. Reliability Test

The reliability test is used to determine whether the questionnaire that has been made or determined is reliable if the results are used for multiple tests. The data can be said to be reliable if the value of Cronbach's Alpha 0.5 (Ghozali, 2005). Reliability testing using the IDM SPSS version 26 application.

Table 5 Reliability Criteria

Criteria	Conclusion
Cronbach's Alpha > 0.90	Perfect Reliability
Cronbach'sAlpha 0.70 – 0.90	High Reliability
Cronbach'sAlpha 0.50 – 0.70	Moderate Reliability
Cronbach'sAlpha < 0.50	Low Reliability

The results of the reliability test can be seen in the table.

Table 6 Reliability Test Results

Variable	Cronbach's Alpha	Information
System Quality	0.898	High Reliability
Information Quality	0.815	High Reliability
Service Quality	0.756	High Reliability
User	0.572	Moderate Reliability
User Satisfaction	0.921	Perfect Reliability
Net Benefits	0.871	High Reliability

3. Hypothesis Testing

Correlation test was conducted to determine the level of closeness of the relationship between variables expressed by the correlation coefficient (r). The basis for decision making is whether there is a correlation between variables if r arithmetic > r table or significance value < 0.05 then there is a correlation between variables, but if r arithmetic < r table significant value > 0.05 then there is no correlation between variables.

Table 7 Correlation Criteria

Criteria		Conclusion
R count > r table	Sig. < 0.05	Correlate
R count < r table	Sig. > 0.05	No Correlation

Summary of Hypothesis Correlation Results

Table 8 Summary of Hypothesis Correlation Results

No	Hypothesis	Decision
1	System Quality (KS) to Users (P)	Correlate
2	System Quality (KS) on User Satisfaction (KP)	Correlate
3	Information Quality (KI) to Users (P)	Correlate

No	Hypothesis	Decision
4	Information Quality (KI) on User Satisfaction (KP)	**Correlate**
5	Service Quality (KI) on User Satisfaction (KP)	**Correlate**
6	User (P) on User Satisfaction (KP)	**Correlate**
7	User Satisfaction (KP) to Users (P)	**Correlate**
8	Net Benefit (MB) to Users (F)	**Correlate**
9	Net Benefit (MB) on User Satisfaction (P)	**Correlate**

5. Conclusion

Based on the results of the study entitled "Analysis of Customer Satisfaction Levels with Shopee E-commerce Using the Delon and Mclean Method" in the city of Pekanbaru. Researchers get 3 conclusions obtained from the results and discussion of which are:
"Based on 100 research samples, there were 79 customers who said they were very satisfied with the Shopee E-commerce application. And of the 9 hypotheses proposed in this study, all of them are correlated. So this indicates that shopee E-commerce customers in the city of Pekanbaru are very satisfied with the application. The results of the reliability test also show that there is 1 variable that has perfect reliability, namely customer satisfaction, meaning that customer satisfaction has better quality than other variables.

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