
Analysis of the Shopee E-commerce Application Using the Delone and Mclean Models

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Abstract

Shopee is a marketplace application founded by Chris Feng, which currently has offices in various countries, starting from Singapore, Indonesia, Taiwan, Thailand, Malaysia, Vietnam, the Philippines and Brazil. Shopee users have complained of experiencing various problems. The complaint was also conveyed on social media such as Twitter and Instagram. The cekgangguan.id site received more than 2,850 reports regarding network and service disruptions at Shopee Indonesia. This study aims to analyze the success of the Shopee application using the DeLone and McLean methods. The research data was obtained from 170 respondents who filled out a questionnaire for Shopee users in East Java. Data were analyzed using the Amos SEM analysis model. This study proves that user satisfaction has a significant effect on net benefits and performance impacts. But the relationship of other variables has no significant effect. This research has implications for increasing user satisfaction, net benefits which ultimately have an impact on application performance.

Keywords: e-commerce; Shopee; DeLone and McLean.

Introduction

According to (SindoNews.com, 2022) the Shopee application has experienced problems or errors since Tuesday (22/3). Shopee users have complained of experiencing various problems. The complaint was also conveyed on social media such as Twitter and Instagram. The Cekgulung.id site received more than 2,850 reports in the last 3 hours regarding network and service disruptions at Shopee Indonesia. According to the site, the highest problem experienced by users is unable to log in (55.86%), secondly, users cannot access the Shopee site/application (28.81%). Furthermore, order verification failed, alias the user could not check out (5.94%). Then the item tracking error (5.87%) and the promo code cannot be used (3.52%). The problems that occur in this phenomenon strengthen the reasons why it is necessary to conduct research on Shopee application analysis using the DeLone and McLean Information System Success Models.

Information Systems Success Model Theory of DeLone and McLean is a conceptual model used to examine the success of an information system or application. There are six points, namely system quality, information quality, service quality, use, user satisfaction, and net benefit.

System quality includes ease of use, reliability, responsiveness, flexibility, and system security. (DeLone & McLean, 2014).

The system quality indicator is ease of use. However, in the explanation of the phenomenon above, it was stated that as many as 55.86% of users failed to log in to the Shopee application. Indicators on the quality of information (information quality) in the form of completeness of information, relevant, accurate, and precise. However, the phenomenon that occurs is that 5.87% of users cannot track goods, users cannot see the condition of goods (tracking) at the latest time accurately and precisely.

Indicators on service quality, namely assurance and empathy, as many as 3.52% of users cannot claim promo codes, users do not get their rights to promo codes that fail to be used. Indicators of use, user satisfaction and net benefit are user characteristics, satisfaction and net benefit. The phenomena that occur from the explanation above have an impact on user satisfaction and make users reduce the intensity of using the Shopee application.

The problems that occur in this phenomenon strengthen the reasons why it is necessary to conduct research on Shopee application analysis using the DeLone and McLean Information System Success Models. With the development of an increasingly modern era, in the future people will be happier and often shop through e-commerce, for this reason making e-commerce of higher quality will make e-commerce able to compete and survive in the era to come.

With this research, it can be considered as a recommendation to the manager in knowing the effect of system quality, information quality, service quality on usage and user satisfaction as well as the net benefits obtained from the application, so that the application manager can maintain and also improve the quality of the Shopee application.

In previous studies (Tam, Loureiro, & Oliveira, 2020) tested the relationship between e-commerce and individual performance using the Delone and McLean models where the results of the model research succeeded in predicting individual performance whereas, in research (Rahayu, Apriliyanto, & Putro, 2018) tested the SIKMA application using the Delone and Mclean models with the results of implementing the SIKMA application cannot be said to be fully successful.

This study answers the gap between research (Tam, Loureiro, & Oliveira, 2020) and (Rahayu, Apriliyanto, & Putro, 2018) where the research framework mixes the Delone and McLean models in (Rahayu, Apriliyanto, & Putro, 2018) by adding individual performance (Performance Impact) as in the model (Tam, Loureiro, & Oliveira, 2020) which will be examined in the e-commerce application, Shopee. Research using Delone and McLean is more often used to measure the success of an information system and is rarely done for an e-commerce in the field of marketing, therefore this research is conducted to measure an e-commerce that will provide benefits from a marketing perspective.

Research objectives

1. To test and analyze the influence between system quality and use of the Shopee application.
2. To test and analyze the influence between system quality and user satisfaction on the Shopee application.

3. To test and analyze the influence between the quality of information (information quality) and use (use) of the Shopee application.
4. To test and analyze the influence between the quality of information (information quality) and user satisfaction (user satisfaction) on the Shopee application.
5. To test and analyze the influence between service quality and usage (users) of the Shopee application.
6. To test and analyze the influence between service quality and user satisfaction on the Shopee application.
7. To test and analyze the influence between use (use) and user satisfaction (user satisfaction) on the Shopee application.
8. To test and analyze whether there is an influence between user satisfaction and use of the Shopee application?
9. To test and analyze whether there is an influence between usage and the net benefit of the Shopee application?
10. To test and analyze whether there is an influence between user satisfaction and the net benefits of the Shopee application?
11. To test and analyze the effect of use on the performance impact of the Shopee application?
12. To test and analyze the effect of user satisfaction on the performance impact of the Shopee application?

Research Benefits

The benefits of this research are that the results of this research are expected to be used by application managers to determine the level of success of the Shopee application. It is hoped that the results of this study can also be used by application managers to determine the effect of the quality of the application on the intensity of the use of the Shopee application, and it is hoped that the results of this study can be used as a reference for future researchers.

Literature Review

E-commerce

E-commerce is a dynamic technological device, covering applications and business processes that connect companies, consumers and a community through electronic transactions, which carry out the electronic exchange of goods. (Handayani, 2018). E-commerce is an electronic trading process where sales transactions are carried out electronically on the internet network. E-commerce is the process of buying, selling or exchanging products, services and information via computer networks. (Huda & Priyatna, 2019).

Quality of E-commerce

The quality of e-commerce services is of course very interesting to study, because the quality of the website greatly influences the number of customers who access and decide to shop using e-commerce. The quality of e-commerce is determined by the added value given to products or services by integrating several components from different sources, namely, user interaction and

service quality in e-commerce itself, as well as information, user interaction and service quality are currently factors - factors that affect the effectiveness of an e-commerce significantly. By considering these factors, e-commerce actors can understand what customers need. (Aryadita, Widyastuti, & Wardani, 2017)

The quality of an e-commerce website can affect the number of customers who decide to transact on an e-commerce. To find out the quality of a website, of course, refers to a standard. Information accuracy is one of the most important factors determining a quality website. In addition to the accuracy of the information, the unlimited content of a website and its design are key factors why a website is of high quality and must be managed continuously so that the existence of the website is not displaced by other websites. (Trisnawan, Kertahadi, & m Suyadi, 2015)

TAM and UTAUT models

Other research models are used as a basis for differentiating between the DeLone and McLean application success models and other models as explained in the following models.

1. TAM (technology acceptance model)

One of the main variables in TAM (technology acceptance model) is intention which is modeled to influence behavior. Intention is influenced by two main variables of TAM, namely perceived usefulness and perceived ease of use. TAM does not include the influence of social factors and behavioral control factors. The results of research on TAM are the influence between perceived usefulness and perceived ease of use (Jogiyanto, 2008).

2. UTAUT (unified theory of acceptance and use of technology)

It is a combined theory of acceptance and use of technology, the UTAUT model is tested in two ways, namely by testing the measurement model and testing the measurement model to test the reliability and validity of the model. Testing the structural model is to examine the effects of the path coefficients (Jogiyanto, 2008).

DeLone and McLean's application success model

DeLone and McLean re-developed the Success Model published in 1992 in 2003. An image of the DeLone & McLean success model is shown in Figure 1

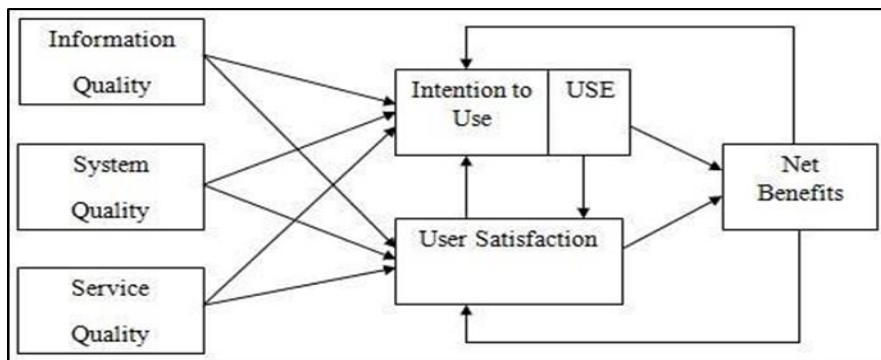


Figure 1 Information systems success model DeLone & McLean (2003)

From the model image proposed by DeLone and McLean, the success of an information system consists of six variables, namely:

1. System Quality (System Quality) used to measure the quality of information technology systems.
2. Quality of Information (Information Quality) which is used to measure the quality of information.
3. Quality of service (Service quality) of services provided by information system managers.
4. Use is the use of information on a system by recipients/users and intention to use as an alternative to use.
5. User Satisfaction is the user's response to the use of information system output.
6. Net Benefit is the effect of information on user behavior and the influence of information on organizational performance to help increase knowledge and effectiveness of communication.

Prior Research

Research by (Tam, Loureiro, & Oliveira, 2020) entitled The Individual Performance Outcome Behind E-commerce Integrating Information Systems Success And Overall Trust. Aims to examine the relationship between e-commerce and individual performance. The results show that overall trust is a determining factor in e-commerce usage and user satisfaction. In research on trust reducing risk and uncertainty and motivating customers to use e-commerce, the model successfully predicts individual performance.

Research by Gonzales & Wareham (2019) entitled Analysing The Impact Of A Business Intelligence System And New Conceptualizations Of System Use. The results of research in this journal are that after comparing success models, it is found that the Seddon model is the best used for BIS, compared to the DeLone and McLean models and the Modified Seddon model.

Research by Aldholay, Isaac, & Abdullah (2018) entitled An extension of DeLone and McLean IS success model with self-efficacy Online learning usage in Yemen The research results from this journal include self-efficacy as a determinant of user satisfaction and actual usage in the context of online learning in Yemen and findings reveal that overall quality significantly influences user satisfaction and actual usage.

Research by Cheng (2020) entitled Quality antecedent and performance outcome of cloud-based hospital information system continuance intention. The results of this study indicate that the research model is strongly supported by confirming the validity of the proposed model via SEM, with all significant paths in the hypothesized directions.

Research by Harr, Brocke, & Urbach (2019) entitled Evaluating the individual and organizational impact of enterprise content management systems. The results show that ECMS has a positive effect on organizational content management in terms of efficiency, collaboration, and compliance.

Research by Rahayu, Apriliyanto, & Putro (2018) entitled Analysis of the Success of Student Information Systems (SIKMA) with the DeLone and McLean Model Approaches. Results. obtained from this research is to prove the hypothesis using the SEM model, there are 5

hypotheses that are accepted and 5 hypotheses that are rejected. Based on this, it can be concluded that the implementation of SIKMA cannot be said to be completely successful.

Research by Pertiwi, Sejati, & Prasetianingrum (2020) entitled Analysis of the Success of E-commerce Systems Participating in Harbolnas Using the DeLone & Mclean Model. Furthermore, the results of this study, e-commerce participating in the 2019 Harbolnas can fulfill e-commerce success based on the DeLone and McLean e-commerce success model.

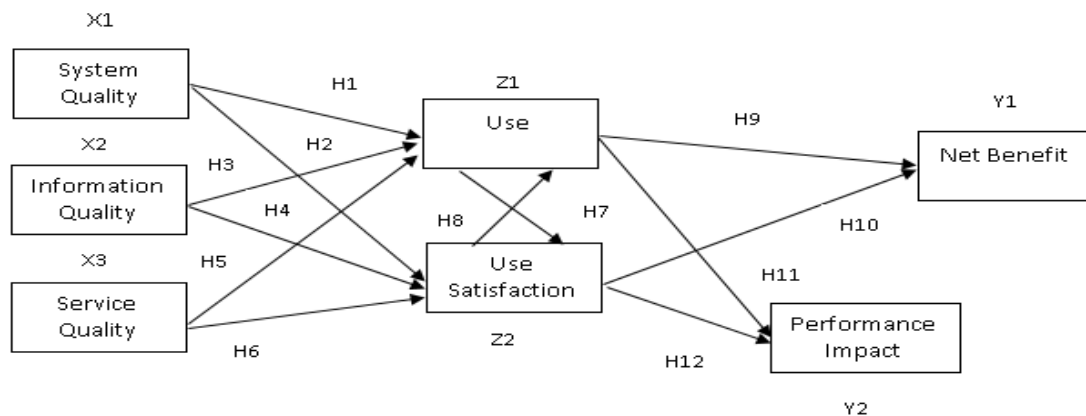
Research by Pusparini & Sani (2020) entitled Measuring the Success of Implementing an Academic Information System Using the DeLone and Mclean Success Model. The results of this study are that academic information systems can meet academic needs so that the performance of human resources, service quality, competitiveness among other tertiary institutions is better.

2. Method

The population in this study are users of the Shopee e-commerce application in East Java. The number of samples taken for this study were 200 samples with details of a small sample of 30 respondents and a large sample of 170 respondents. Likert scale 7 and the sampling technique is Convenience Sampling. This technique is a sampling technique based on coincidence, that is, anyone who coincidentally or incidentally meets the researcher can be used as a sample, if it is deemed that the person met by chance is suitable as a data source. Data analysis technique using SEM AMOS.

Conceptual Models

Problem solving in this study was carried out by modifying the DeLone and Mcleon models. There is an addition where it is suspected that the variables of use and user satisfaction have a significant effect on individual impact (performance impact). (Tam, Loureiro, & Oliveira, 2020). Net benefit (Net Benefit) has an effect on user satisfaction and net benefit has an effect on users removed. (Rahayu, Apriliyanto, & Putro,2018).



Source : Modification of the Tam, Loureiro, & Oliveira (2020) and Rahayu, Apriliyanto, & Putro (2018) Models

Figure 2 Conceptual Models

From the research hypothesis conceptual model that was developed, namely as follows:

H1 : System quality has a significant effect on the use of the Shopee application.

H2 : System quality (system quality) has a significant effect on user satisfaction (user satisfaction) of the Shopee application.

H3 : Information quality has a significant effect on the use of the Shopee application.

H4 : Information quality (information quality) has a significant effect on user satisfaction (user satisfaction) of the Shopee application.

H5 : Service quality has a significant effect on the use of the Shopee application.

H6 : Service quality has a significant effect on user satisfaction for the Shopee application.

H7 : Use (use) has a significant effect on user satisfaction (user satisfaction) of the Shopee application.

H8 : User satisfaction has a significant effect on the use of the Shopee application.

H9 : Use has a significant effect on the net benefit of the Shopee application.

H10: User satisfaction has a significant effect on the net benefit of the Shopee application.

H11: Use (use) has a significant effect on the performance impact of the Shopee application.

H12: User satisfaction has a significant effect on the performance impact of the Shopee application.

Research design

This research will conduct quantitative research, where this research uses data and later the data obtained will be processed in a data processing application with statistical measurements. If based on the data source, this study uses primary data, namely data taken from the results of distributing questionnaires to respondents. When viewed from the formulation of the problem, the research design is a hypothesis testing research because there are several conjectures to be tested.

The scope of research

The scope of this study is limited in terms of respondents, namely the general public in East Java who use the Shopee e-commerce application. This study discusses application success according to DeLone and McLean's theory. Respondents were limited to users of the Shopee e-commerce application in East Java.

Variable Identification

This section will describe the stages of the research variables which consist of six variables. The independent (exogenous) variables in this study are system quality, information quality and service quality as follows:

1. Variable System Quality (System Quality) as X_1
2. Variable Quality of Information (Information Quality) as X_2
3. Variable Quality of Service (Service Quality) as X_3

The intervening variables that appear when the independent variables will affect the dependent variable, in this study are the use and user satisfaction as follows:

1. Variable Use (Use) as Z_1
2. Variable User Satisfaction as Z_2

The dependent (endogenous) variables in this study are the net benefit and performance impact as follows:

1. Variable Net Benefit as Y_1
2. Performance impact variable as Y_2

Operational Definition and Variable Measurement

System Quality

System quality is a respondent's assessment to measure the quality of information technology systems in the Shopee application. System quality indicators refer to the research of DeLone & McLean (2003) as follows:

1. Usability
2. Reliability
3. Response time
4. Adaptability

Information Quality

Information quality is a respondent's assessment of the quality of information on the Shopee application. Service quality indicators refer to the research of DeLone & McLean (2003) as follows:

1. Completeness
2. Relevance
3. Security
4. Ease of understanding

Service Quality

Service quality is a respondent's assessment of measuring the services provided by information system managers in the shopee application. Service quality indicators refer to the research of DeLone & McLean (2003) as follows:

1. Assurance
2. Eempathy
3. Responsiveness

Use

Use is the respondent's assessment of the use of information on a system by recipients/users and intention to use as an alternative to using the shopee application. The Usage Indicator refers to the research of DeLone & McLean (2003) as follows:

1. Nature of use
2. Number of site visits
3. Number of transactions executed

User Satisfaction

User satisfaction is the respondent's assessment of the user's response to the use of information system output in the shopee application. Indicators of user satisfaction refer to the research of DeLone & McLean (2003) as follows :

1. Repeat purchases
2. Repeat visits
3. User surveys

Net Benefits

Net benefit is the respondent's assessment of the effect of information on user behavior and the influence of information on organizational performance to help increase knowledge and effectiveness of communication in the shopee application. The net benefit indicator refers to research by DeLone & McLean (2003) as follows :

1. Time saving
2. Expanded markets
3. Reduced Search Cost

Performance Impact

Performance impact is the impact respondents have in increasing productivity when searching for products and services, buying products that would not be available in their immediate area, and saving by getting discounts or comparing prices that would not be available offline.

3. Results

Validity and Reliability Test

Small sample validity test was carried out with SPSS by comparing the value of R count and R table. If the results of the validity test by looking at the value of $R_{count} > R_{table}$ then it is declared valid and the statement can be used as a measuring tool. In a small sample $N = 30$, then $df = N - 2 = 28$. After obtaining $df = 28$, it can be seen in table R table $\alpha 0.05$ with $df = 28 = 0.306$. The results prove that all calculated R values are greater than R table, thus all indicators are declared valid.

In addition to the validity test, the reliability test was also carried out, in this study it was tested by looking at the Cronbach's Alpha value with the help of SPSS version 21. The data is said to be reliable if the Cronbach's Alpha value ≥ 0.6 . From the calculation results obtained Cronbach's Alpha value above 0.6, thus it can be concluded that the results of the small sample reliability test on all variables are reliable.

Respondent Profile

This study involved 30 respondents for a small sample and 170 respondents for a large sample. of the 170 respondents in this study aged (12 years - 57 years) with the age of the most respondents namely 26 years. Obtained data from female respondents (F) as much as 72% and male respondents (L) as much as 28%. Junior high school education is 2%, high school education is 15%, D3/D4 education is 5%, undergraduate education is 73%, and postgraduate education is 5%.

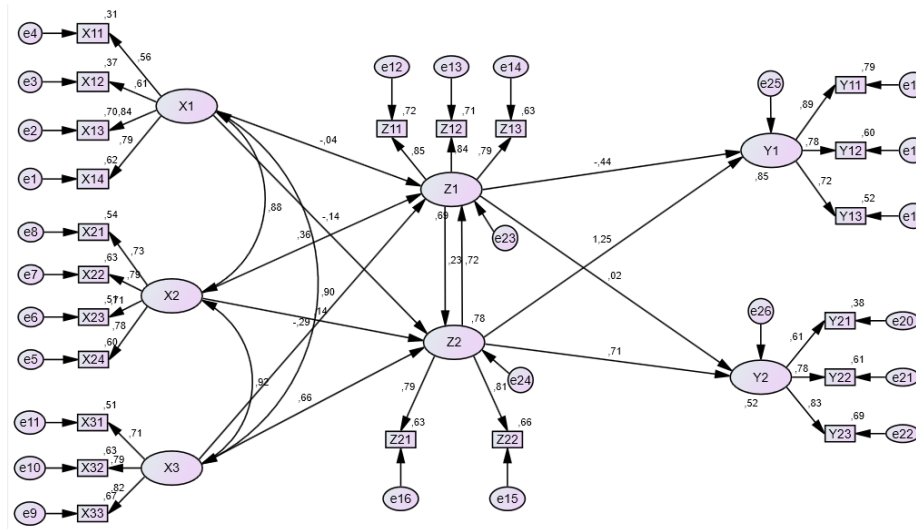


Figure 3 Path Diagrams on AMOS

Table 1 Results of Testing the Delone and McLean Models

Kriteria	Nilai Cut - Off	Hasil Perhitungan	Keterangan
Chi-Square	Hope small	427,486	χ^2 dengan DF = 195 =ChiInv(0,05;195) = 228,579 Not good
Significance Probability	$\geq 0,05$	0,000	Not good
RMSEA	$\leq 0,08$	0,084	Good
CMIN/DF	$\leq 2,00$	2,192	Pretty good
TLI	$\geq 0,95$	0,880	Pretty good
CFI	$\geq 0,95$	0,899	Pretty good

There are 6 criteria for model test results which state that the test results tend to be quite good, so it can be accumulated between models and data that have compatibility. From Figure 3 it can be concluded that the proposed hypothesis is accepted or rejected, then the test results can be seen in Table 2 as follows:

Table 2 Hypothesis Test Result

Variabel	Estimasi	C.R.	P	Keterangan
Z1← X1	-0,045	-0,158	0,875	Not significant
Z1←X2	0,532	1,199	0,231	Not significant
Z1←X3	-0,376	-0,891	0,373	Not significant
Z2←X1	-0,124	-0,613	0,540	Not significant
Z2←X2	0,154	0,488	0,625	Not significant
Z2←X3	0,609	2,13	0,033	significant
Z2←Z1	0,167	1,497	0,134	Not significant
Z1←Z2	1	-	-	Not significant
Y1←Z1	-0,35	-2,104	0,035	significant
Y1←Z2	1,382	5,432	***	Significant
Y2←Z1	0,017	0,117	0,907	Not significant
Y2←Z2	0,839	3,658	***	Significant

Discussion

Referring to Figure 3 and table 1, the results prove that the quality of the system has no significant effect on usage. It was identified that the probability value was $0.875 > 0.05$, meaning that the quality of the system had no significant effect on usage, so the hypothesis was rejected. In the previous study, the probability value was $0.587 > 0.05$, meaning that system quality did not have a significant effect on usage, so the hypothesis was rejected. (Rahayu, Apriliyanto, & Putro, 2018)

Furthermore, the quality of information on usage has no significant effect. It was identified that the probability value was $0.231 > 0.05$, meaning that the quality of information did not have a significant effect on usage, so the hypothesis was rejected. These results show similarities with previous research where the probability value is $0.889 > 0.05$, meaning that the quality of information does not have a significant effect on usage, so the hypothesis is rejected. (Rahayu, Apriliyanto, & Putro, 2018)

Service quality has no significant effect on usage. Evidenced by a probability value of $0.373 > 0.05$, meaning that service quality does not have a significant effect on usage, hence the hypothesis. These results are in line with previous research that service quality has no significant effect on usage. (Rahayu, Apriliyanto, & Putro, 2018)

System quality has no significant effect on user satisfaction. Evidenced by a probability value of $0.540 > 0.05$, meaning that the quality of the system does not have a significant effect on user satisfaction, thus the hypothesis is rejected. This research is not in line with previous research that system quality has a significant effect on user satisfaction. (Rahayu, Apriliyanto, & Putro, 2018)

Furthermore, the quality of information on user satisfaction has no significant effect. Evidenced by a probability value of $0.625 > 0.05$, meaning that the quality of information does not have a significant effect on user satisfaction, the hypothesis is rejected. The results of this study are not

in line with previous research, the probability value <0.05 means that the quality of information has a significant effect on user satisfaction, so the hypothesis is accepted. (Rahayu, Apriliyanto, & Putro, 2018)

The results of the analysis prove that service quality has a significant effect on user satisfaction. Evidenced by a probability value of $0.033 > 0.05$, meaning that service quality has a significant effect on user satisfaction, thus the hypothesis is accepted. These results are in line with previous studies where service quality has a significant effect on user satisfaction. (Rahayu, Apriliyanto, & Putro, 2018)

The results of the analysis prove that usage has no significant effect on user satisfaction. Evidenced by a probability value of $0.134 > 0.05$, meaning that use does not have a significant effect on user satisfaction, the hypothesis is rejected. The results of this study are not in line with the results of previous studies that use has a significant effect on user satisfaction, so the hypothesis is accepted. (Rahayu, Apriliyanto, & Putro, 2018)

Furthermore, the results of the analysis prove that user satisfaction with use has no significant effect. This result is proven by the probability value of nil, meaning that user satisfaction does not have a significant effect on usage, so the hypothesis is rejected. This result also contrasts with the results of previous studies where user satisfaction has a significant effect on usage, so the hypothesis is accepted. (Rahayu, Apriliyanto, & Putro, 2018)

Furthermore, the usage variable has a significant effect on the Net Benefit variable. The results of the analysis prove that the probability value is $0.035 > 0.05$, meaning that use has a significant effect on Net Benefit, so the hypothesis is accepted. This result is in line with the results of previous studies where use has a significant effect on Net Benefit. (Rahayu, Apriliyanto, & Putro, 2018)

Furthermore, user satisfaction with Net Benefit has a significant effect. Evidenced by a probability value of <0.05 , it means that user satisfaction has a significant effect on Net Benefit, so the hypothesis is accepted. This result is not in line with the results of previous research that user satisfaction has no significant effect on Net Benefit. (Rahayu, Apriliyanto, & Putro, 2018)

The use of the performance impact has no significant effect. Evidenced by a probability value of $0.907 > 0.05$, meaning that use does not have a significant effect on performance impact, thus the hypothesis is rejected. These results are not in line with previous studies where the probability value <0.05 means that use has a significant effect on performance impact. (Tam, Loureiro, & Oliveira, 2020)

Finally, user satisfaction has a significant impact on performance. Evidenced by a probability value of <0.05 , it means that user satisfaction has a significant effect on performance impact, thus the hypothesis is accepted. These results are in line with previous research where user satisfaction has a significant effect on performance impact. (Tam, Loureiro, & Oliveira, 2020)

Variabel Laten

The mean number indicates the respondent's perception during the research and the factor loading value indicates what to do in the future. If the mean value and factor loading are located on the same indicator, it means that in the future the indicator with the largest value will be

intensified. If it's the other way around, then in the future the biggest factor loading indicator will become a role model for changing application policies

1. the perception of the people of East Java found that the indicator of User Satisfaction which has a dominant mean is Z2.2 of 6.05 and the results of data processing factor loading which has the highest value is also found in Z2.2 of 0.81. This shows that at the time of research, the public's perception was more on user satisfaction, that is, they would visit the Shopee application again, and for the future the community would want to visit the Shopee application again. Therefore the developer must maintain customer satisfaction and pay attention to the dissemination of the application in order to improve the nature of use (repeat visits) by the community.

2. the perception of the people of East Java found that the indicator of Net Benefit had a dominant mean, namely Y1.2 of 6.14 and the result of factor loading data processing which had the highest value, namely Y1.1 of 0.89. This shows that at the time of research, public perception was more towards the shopee application as an online shopping tool that provides a wide variety of markets throughout Indonesia, and for the future the public wants the shopee application to be an efficient online shopping facility for users and sellers. Therefore the developer must pay attention and improve efficiency in the application in every existing process.

3. the perception of the people of East Java found that the indicator of Net Benefit had a dominant mean, namely Y2.1 of 5.40 and the results of factor loading data processing which had the highest value, namely Y2.31 of 0.83. This shows that at the time of the research, the public's perception of the shopee application made you feel at home looking for products that you thought were suitable and continued to explore until you forgot the time, and for the future the shopee application is expected to increase user productivity. Therefore the developer must maintain and increase the variety of productivity in the application.

4. the perception of the people of East Java found that the indicator of the Service Quality Variable has a dominant mean, namely X3.2 of 5.89 and the results of factor loading data processing which has the highest value, namely X3.3 of 0.81. This shows that at the time of research, the public's perception was more towards the appearance of the shopee application providing convenience in transactions, and for the future the shopee application is expected to provide fast service according to your wishes. Therefore the developer must maintain and improve fast service according to the wishes of Shopee Application users

5. the perception of the people of East Java found that the indicator of the Use Variable has a dominant mean, namely Z11 of 6.01 and the results of data processing factor loading which has the highest value, namely Z11 of 0.85. This shows that at the time of research, public perception was more towards users frequently using the Shopee Application, and for the future it is hoped that the Shopee application will encourage users to frequently use the Shopee Application. Therefore the developer must maintain and improve the Shopee Application to make users use the Application more often.

Conclusion

The results of this study found that not all relationships between variables developed in the model are supported. System quality has no significant effect on usage. Information quality has no significant effect on usage. Service quality has a significant effect on usage. System quality has no significant effect on user satisfaction. Information quality has no significant effect on user satisfaction. Service quality has no significant effect on user satisfaction. Usage has no significant effect on user satisfaction. User satisfaction has no significant effect on usage. The use variable has a significant effect on Net Benefit. User satisfaction has a significant effect on Net Benefit and usage variable does not have a significant effect on performance impact. However, usage satisfaction has a significant effect on performance impact. From this research, it is suggested that the shopee application prioritizes service quality (responsiveness), use (nature of use), user satisfaction (repeat visits), net benefits (time saving), and performance impact (productivity) of the application. Suggestions for further research are that the survey can be conducted in a wider scope, perhaps from several provinces or other provinces to obtain results from different perspectives.

Recomendation

1. Maintain interest in usage. Make visitors want to continue using the application. The way the application is made becomes a dependency requirement for users, by providing information on various types of goods with varied and up-to-date prices.
2. Increase the effectiveness of product timeline updates based on what we often look for
3. Shopee can add its own delivery fleet, especially outside Java, which is mostly constrained by distance and expensive shipping costs.
4. Shopee can set a shipping fee policy such as buying goods from abroad by matching one price with a certain price.
5. Shopee can perform system maintenance to make it more responsive when used on different devices.
6. In the quality of complaint services so that SLA can be carried out more quickly in accordance with the urgency of the type of complaint service

References

- Aldholay, A., Isaac, O., & Abdullah, Z. (2018). An extension of Delone and McLean IS success model with self-efficacy Online learning usage in Yemen. *The International Journal of*, 2056-4880. doi:DOI 10.1108/IJILT-11-2017-0116
- Cheng, Y.-M. (2020). Quality antecedents and performance outcome of cloud-based hospital information system continuance intention. *Journal of Enterprise Information*, 33(3), 654-683. doi:DOI 10.1108/JEIM-04-2019-0107
- Gonzales, R., & Wareham, J. (2019). Analysing the impact of a business intelligence system and new conceptualizations of system use. *Journal of Economics, Finance and Administrative Science*, 24, 345-368. doi:10.1108/JEFAS-05-2018-0052
- Harr, A., Brocke, J. v., & Urbach, N. (2019). Evaluating the individual and organizational impact

- of enterprise content management systems. *Business Process Management*, 1463-7154. doi:DOI 10.1108/BPMJ-05-2017-0117
- Pertiwi, D., Sejati, F. R., & Prasetianingrum, S. (2020, Desember). Analisis Kesuksesan Sistem E-Commerce Yang Berpartisipasi Pada Harbolnas Dengan Menggunakan Model Delone & Mclean. *JIMFE (Jurnal Ilmiah Manajemen Fakultas Ekonomi)*, 6(2), 237-252. Diambil kembali dari <https://journal.unpak.ac.id/index.php/jimfe>
- Pusparini, N. N., & Sani, A. (2020, Oktober). berjudul Mengukur Keberhasilan Penerapan Sistem Informasi Akademik Dengan Model Kesuksesan Delone And Mclean. *METHOMIKA: Jurnal Manajemen Informatika & Komputerisasi Akuntansi*, 4(2), 149-155.
- Rahayu, F. S., Apriliyanto, R., & Putro, Y. S. (2018). Analisis Kesuksesan Sistem Informasi Kemahasiswaan (SIKMA) dengan Pendekatan Model DeLone dan McLean. *Indonesian Journal of Information Systems (IJIS)*, 1(1), 34-46.
- Tam, C., Loureiro, A., & Oliveira, T. (2020). The individual performance outcome behind e-commerce Integrating information systems success and overall trust. *Internet Research*, 30, 1066-2243. doi:10.1108/INTR-06-2018-0262
- DeLone, W. H., & McLean, E. R. (2014). Measuring e-Commerce Success: Applying the. *International Journal of Electronic Commerce*, 9, 31-47
- SindoNews.com. (2022, March 22). Diambil kembali dari <https://tekno.sindonews.com/read/720079/207/aplikasi-shopee-gangguan-susah-log-in-tidak-bisa-check-out-dan-kehilangan-saldo-1647925426>