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RESEARCH ARTICLE

USABILITY EVALUATION ON ANDROID BASED ONLINE TRANSPORTATION APPLICATIONS BY ADOPTING DRIVER SATISFACTION USING TESTING USABILITY

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ABSTRACT

In the modern era, to fulfill its activities, Indonesian people need online transportation as a tool in carrying out daily activities. Therefore, online transportation service entrepreneurs try to improve service quality, ease of ordering, fleet comfort, punctuality. This study aims to evaluate driver satisfaction with the use of an android-based online transportation application using the usability method.

The population used in the study is an online transportation driver who uses the GoCar service application in Jakarta, Tangerang and Depok. Testing is done by usability interviews, multiple linear regression tests and hypothesis testing.

Results of the study: interviews with 5 drivers were given the task to deliver passengers with cash payments successfully carried out well. Based on the questionnaire obtained from 102 respondents, overall driver satisfaction obtained a score of 74% indicating a good evaluation according to the driver. Usability evaluation on GoCar applications, namely the quality of usability and information quality significantly affect the satisfaction of GoCar drivers, partially the quality of service interactions does not affect the satisfaction of GoCar application drivers. So simultaneously, the quality of usability, quality of information and quality of service interaction affect driver satisfaction.

INTRODUCTION

Transportation is a very important field of activity in the life of the Indonesian people. The importance of transportation for the people of Indonesia is caused by several factors, among others, Indonesia's geographical situation which consists of thousands of small and large islands, waters consisting of mostly seas, rivers and lakes that allow transportation to be carried out by land, water and air to reach the entire region. Indonesia (Abdul Kadir Muhammad, Commercial Transportation Law, Bandung: Citra Aditya Bakti, 1998, p.7). According to Kamaluddin (2003), transportation can be interpreted as a process of activities that transport or carry something from one place to another.

According to Nirwana (2004: 47) supporting facilities are part of marketing services that have an important role, because the services delivered to customers often require supporting facilities in their delivery. This will further strengthen the existence of the online transportation. Because with the physical supporting facilities, the online transportation service will be understood by the customer.

Online transportation is also seen to be more effective in terms of time efficiency because the public can easily get the services of these transportation providers quickly through the application provided by the service provider bureau. It is this lifestyle change that is exploited by businesses to start business competition in the online transportation business (Hangganararas, 2017). Online transportation has a number of types namely GoJek services engaged in transportation services such as GoRide and GoCar where GoRide is a transportation service that aims to deliver passengers by the driver to the destination ordered by using a motorcycle, while GoCar is a transportation service that aims to deliver the passenger by the driver to the destination ordered by car.

In this modern era, people have a variety of activities and to fulfill these activities, the public requires online transportation as a supporting tool / aids in carrying out their activities. Therefore, online transportation service entrepreneurs try to improve service quality, ease of ordering, fleet convenience, punctuality and so forth. The proliferation of online transportation is now making competition between drivers to get increasingly stringent orders. In the online application, the driver can view incoming orders, the distance of the customer's pickup location, the customer's location, the customer's destination and the estimated fare, while the customer can monitor the location of the driver's online position, the driver's name, the estimated fare, the estimated driving time of the driver to the pickup location, the type of car and vehicle plates.

Often the orders that enter the online driver application have the distance to the customer pickup location far enough, the orders

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received on the online driver application go to the odd even traffic rules area but the driver's license plate number cannot pass through the area, fictitious orders, tariffs are not according to mileage. Therefore, the study was conducted to analyze aspects of usability that affect the attitude of the acceptance of the use of the system of applications to the driver. The benefits of the application are measured based on the parameters of driver satisfaction (user satisfaction) on the application. The tendency of rejection or acceptance towards applications through survey activities is expected to provide input for the improvement of this application. This study aims to evaluate driver satisfaction with the use of android-based online transportation applications using the usability method, namely (1) Knowing the aspects in usability analysis of android-based online transportation applications. (2) Determine the influence of user quality on driver satisfaction. (3) Determine the effect of information quality on driver satisfaction. (4) Determine the effect of the quality of service interactions on driver satisfaction.

METHODOLOGY

Research methodology in usability evaluation on GoCar applications using usability testing methods will be discussed systematically through specific steps to be used in solving research problems. The purpose of usability testing is to identify usability problems, collect qualitative and quantitative data, and determine user satisfaction with a product (U.S. Dept. of Health and Human Services, 2006).

There are four dimensions of online application quality which will then be used as independent variables, namely (1) Usability Quality, (2) Information Quality, (3) Service Interaction Quality, (4) While the dependent variable is User Satisfaction. Likert scale is used to measure the attitudes, opinions, and perceptions of a person or group of people about a phenomenon or phenomenon.

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to study and then draw conclusions (Sugiyono, 2016: 91). The population used in this study is online transportation drivers who use the GoCar service application in DKI Jakarta, Tangerang and Depok. The type of data used in this study is primary data in the form of a questionnaire distributed to respondents of online transportation drivers, especially GoCar. Incidental sampling is a sampling technique based on coincidence, ie anyone who accidentally meets with a researcher can be used as a sample, if it is deemed that the person met by chance is suitable as a data source (Sugiyono, 2016: 99). The sample used in this study used incidental samples with a total of 102 samples counted. Data collection methods using journal and book documentation. The analysis used uses descriptive analysis, and quantitative analysis uses multiple linear regression.

RESULT

Descriptively based on gender data taken from the questionnaire, the data collected by respondents showed that male gender was more dominant at 87.3% or 89 respondents while female sex was only 12.7% or a number of 13 respondents. The age data taken from the questionnaire, the data collected by respondents showed that the age of respondents between 20 years to 30 years was 38.2% or a number of 39 respondents, aged 31 years to 40 years were 51% or a number of 52 respondents, age 41 years up to the age of 50 years as much as 7.8% or a number of 8 respondents, aged 51 years up to the age of 64 years there were 1% or a number of 1 respondents, and aged over 65 years there were 2% or as many as 2 respondents.

Resident domicile data taken from the questionnaire, respondent data that has been collected shows that the domicile of DKI Jakarta respondents is 34.3% or 35 respondents, Tangerang respondents domicile is 42.2% or 43 respondents, Depok domicile of 23.5% or 24 respondents. Monthly income data taken from the questionnaire, the data collected by respondents shows that the income between Rp. 1,000,000 to Rp. 3,000,000 was 7.8% or a number of 8 respondents, income between Rp. 3,000,001 to Rp. 5,000,000 20.6% or 21 respondents, income between Rp. 5,000,001 to Rp. 7,500,000 as much as 40.2% or 41 respondents, and income above Rp. 7,500,000 as much as 31.4% or 32 respondents.

Based on the results of descriptive analysis, the usability quality variable as a whole is in the good category. Where this variable gets a total percentage score of 77.9%. The aspect that has the highest score is about the operation of the GoCar application that is easy to understand and the aspect with the lowest score is about the GoCar application having good navigation. The information quality variable as a whole is in the good category. Where this variable gets a total percentage score of 72.2%. The aspect that has the highest score is that the information provided by the GoCar application is easy to understand and the aspect with the lowest score is that the information provided by the GoCar application is very detailed so that it gets the lowest score. The overall service interaction quality variable is in the good category. Where this variable gets a total percentage score of 79.2%. The aspect that has the highest score is regarding the GoCar application providing personalization space (chat / messages) and the aspect with the lowest score is the safe driver's personal data when accessing the GoCar application.

The variable driver satisfaction (user satisfaction) as a whole is in the good category. Where this variable gets a total percentage score of 69.5%. This variable score is the smallest score between the dependent variable and the other two independent variables. The aspect that has the highest score is about being satisfied with the information provided and provided by the GoCar application and the aspect with the lowest score is that the overall use of the GoCar application component is not experiencing errors. Priyatno (2014: 51) explains that the validity test is an analytical tool to measure the validity of a question. While the reliability test shows the level of consistency and stability of the data in the form of the perception score of a variable both the independent variable and the dependent variable. Test the validity and reliability of all research variables produce valid and reliable values.

DISCUSSION

The results of the partial analysis of the usability quality variable significantly influence the satisfaction of the driver, the information quality variable significantly influences the satisfaction of the driver, the variable quality of service interaction does not affect the satisfaction of the driver. This research is in line with the research of Muhammad Ismail Farouqi et. al. (2018) which produces a usability level consisting of ease level of 100%, speed level of 0.01 goals / sec, error rate of 0.1 and driver satisfaction level of 60% -70%. Usability which consists of a level of convenience is 100%, the speed level is 0.013 goals / sec, the error rate is 0.13 and the driver satisfaction level is 40% -50% on the GoCar application.

It is expected that managers and owners of online transportation for GoJek, specifically GoCar, can pay more attention to the overall quality of the application in order to maintain or improve the satisfaction of GoCar drivers, as well as pay more attention to the information quality and interaction service quality in online transportation applications because it has a significant influence on driver satisfaction. online transportation. To improve the quality of usability in online transportation applications, managers and owners of GoJek online transportation, especially GoCar, can improve the appearance of the GoCar application according to the wishes and expectations of the driver such as the need to improve the GoCar application at the specific focus of pickup points and for the nearest driver to get orders that are not too far away from the pickup point. GoCar to be able to improve the quality of information in its application. Especially information on details and updates (up to date) information that has been a complaint of online transportation drivers

because it is often inappropriate and also get the lowest score in the quality of information.

CONCLUSION

The conclusions of this study are: (1) The usability quality variable as a whole is in the good category. Where this variable gets a total percentage score of 77.9%. The aspect that has the highest score is about the operation of the GoCar application that is easy to understand and the aspect with the lowest score is about the GoCar application having good navigation. (2) The overall information quality variable is in the good category. Where this variable gets a total percentage score of 72.2%. The aspect that has the highest score is that the information provided by the GoCar application is easy to understand and the aspect with the lowest score is that the information provided by the GoCar application is very detailed so that it gets the lowest score. (3) The overall service interaction quality variable is in the good category. Where this variable gets a total percentage score of 79.2%. The aspect that has the highest score is regarding the GoCar application providing personalization space (chat / messages) and the aspect with the lowest score is the safe driver's personal data when accessing the GoCar application. (4) The overall driver satisfaction variable (user satisfaction) is in the good category. Where this variable gets a total percentage score of 69.5%. This variable score is the smallest score between the dependent variable and the other two independent variables. The aspect that has the highest score is about being satisfied with the information provided and provided by the GoCar application and the aspect with the lowest score is that the overall use of the GoCar application component is not experiencing errors. (5) Usability evaluation on GoCar applications, namely the quality of usability and information quality significantly influence the satisfaction of GoCar drivers, while the partial quality of service interactions does not affect the satisfaction of GoCar application drivers. (6) Simultaneously based on the F test that is the quality of usability, quality of information and the quality of service interactions significantly influence the satisfaction of the GoCar application driver.

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References

Abdul Kadir Muhammad, Commercial Transportation Law, Bandung: Citra Aditya Bakti, (1998).

Alvie Rio Febriliansyah, '*et al*'. (2017). Usability Testing Interface Design BCA Mobile Application on Android. Journal of Information Systems (ISSN: 2355-6579).

Hangganararas, S. (2017). Feasibility Analysis of GOJEK Services as a Mode of Transportation in Yogyakarta. Yogyakarta: Atma Jaya University.

Kamaluddin, R. (2003). Transportation Economics. Jakarta: Ghalia Indonesia.

Muhammad Ismail Farouqi, '*et al*'. Usability Evaluation on Go-Jek Applications Using the Usability Testing Method. Journal of Information Technology and Computer Science Development. Vol 2, No. 9, September (2018). p. 3110-3117.

Nirvana. (2004). Principles of Service Marketing. Malang: Dioma.

Priyatno, Duwi. (2014). SPSS of the Most Practical Data Processing. Yogyakarta: Andi Offset.

Sugiyono. (2016). R & D. Bandung Administration Research Methods: Alfabeta Publisher.

U.S. Dept. of Health and Human Services (HHS). (2006). Scenarios [Online]. Available at: <https://www.usability.gov/how-to-andtools/methods/scenarios.html>

U.S. Dept. of Health and Human Services (HHS). (2006). Usability Testing [Online]. Available at: <https://www.usability.gov/how-to-and-tools/methods/usability-testing.html>