

Quality of Service Analysis on Go-Jek Mobile App for Students

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Abstract—The rise of online-based applications makes people vying to do business online. One of them is busy discussed is about motorcycle taxis online. Some online motorcycle taxi companies compete to attract customers, especially young customers such as students. The density of student activity and mobility causes them to need easy transportation to get at affordable prices. The existence of an online motorcycle taxi is really helpful to them. But from some ojek online, Go-Jek is one that is often used by students. Where Go-Jek itself already has an application with mobile computing base so that it can be easily accessed anywhere and by anyone who has a smartphone. In this research, I conducted research on the user experience of Go-Jek application, especially among students. By conducting a survey of some students in Java island, it can be seen how the user experience for how the operation of this application and how the services provided. So it can be concluded things that cause students are more likely to use Go-Jek compared with another online motorcycle taxi.

Keywords—*Taxi Online, Ojek Online, User experience, Go-Jek, App of Student*

I. INTRODUCTION

The increasingly modern life with the density of activity makes the mobility of everyone. So that an efficient means of transportation such as motorcycle taxi is needed [1]. As we know with the online system, for transportation problems need not worry anymore. Because now an online motorcycle taxi has been available. The emergence of an online motorcycle taxi had sparked some conflicts, as it was considered to be disrupting other conventional transport providers. However, due to the ease of access and price that is considered more affordable than conventional transportation providers,

ojek online is very popular in the community, especially for students or students. As is known, that students, especially students have many activities ranging from formal activities of the institutions they study to the affairs of the organizations they follow. It's just that not all students have private vehicles. That's what causes them to finally choose to use ojek online.

Since the first appearance of an online motorcycle taxi, several companies are offering similar services. Because it is considered a lucrative business, some companies carry the same services that arise competition between online ojek service providers [2]. With some company names, Go-Jek is one of the online motorcycle taxi company that is often used by students. Equipped with mobile-based computing applications, Go-jek is the first company to launch an online motorcycle service. Mobile computing itself is a collection of hardware, data and application software capable of moving places [3]. Therefore in this study will be discussed about the user experience or user experience of mobile computing applications or being discussed here is the application Go-Jek to know the user satisfaction of this application. User experience itself is an experience or feeling of someone who has used a particular product or system [4].

With this research, customers who have never used ojek online, especially Go-Jek can know the quality of Go-Jek itself. So it can be known whether Go-Jek is a good recommendation or not, especially for the students. Because with the results of this user experience will affect the image of a company's products [5]. Where is the product here is Go-Jek application.

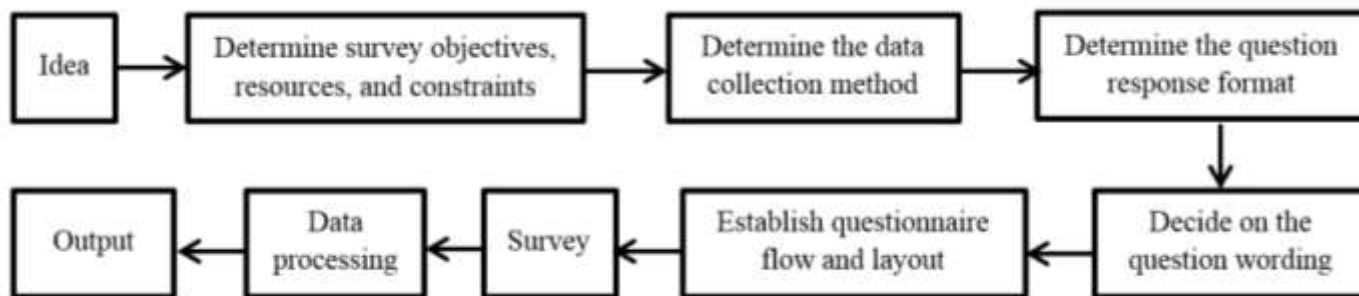


Fig.1. Research process

II. RELATED WORKS

A. User Experience (UX)

In a system or product, there are three elements of User Interface (UI), User Experience (UX), and Usability. All three may look alike just in a very different sense. User Interface is face to face or a view of the system or product. When we look at a product and find it interesting, it is a user interface [6]. As for Usability is a form of evaluation to find out how easy the UI to use [7]. Then the last is the user experience is the satisfaction or pleasure of the user after using a certain product. Another definition, User experience (UX) is a perceived user and their response to a product, service, and system. Of those three things are UX is one way to be able what is perceived by the user.

With the UX of convenience and one's satisfaction can be judged by the principle of the user or customer in power to determine their own level of contentment [8]. This value will help the company to evaluate their products and develop them for the better. Because with UX, the company will know the needs of customers dynamically. So they can know the flaws and advantages of their products, services, or systems [9] [10]. There are several kinds of methods in evaluating UX, namely:

- **Field Study:** Field studies are conducted in a naturalistic setting, the context of real use. Field research can be done in the short term (eg researcher overshadowing participants for an hour) or long-term (eg participants use the system in their life for 2 weeks).
- **Laboratory Studies:** Laboratory studies are conducted at a fixed location, usually at the research site, in contrast to the original usage context. Examples include lab usability, meeting rooms, quiet rooms designed for controlled experiments, or simulators.
- **Online Study:** The online study is done via the internet. Participants can be anonymous people from all over the world, or just by invitation. While it is possible to run many different types of user studies online, this list includes things that are relatively easy to do online.
- **Questioner:** Questionnaires or scales can be used in

different types of UX studies. In our collection, we have questionnaires and scales that cover aspects of experience

B. Go-Jek

Ojek is a service provider engaged in the field of transportation in the form of motorcycles. While ojek online is a motorcycle business that runs online. One of them is Go-Jek. Go-Jek is an online motorcycle company created by Nadiem Makarim and Michaelangelo Moran. Beginning with the aim of reducing the number of unemployed in Indonesia, now Go-Jek is now growing rapidly and adding to the variety of services provided [11]. Starting from Go-Food, Go-Send, to Go-tix is provided by the Go-Jek app where the base in the service is an ojek (delivery). But the two most preferred products of customers are Go-Ride (ojek) and Go-Food (delivery of food) due to the price that is considered affordable [12]. Supported with mobile computing-based applications, applications that can be used portable [13], allowing customers to access Go-Jek anytime and anywhere with their smartphones. At the beginning of the emergence of Go-Jek had caused a conflict with a conventional motorcycle taxi [14]. That's because conventional motorcycle taxi drivers are more interested in Go-Jek.

C. Students Relationship with Ojek Online

The student is a registered student at a college [15]. Where the learning activities undertaken by students more have the highest level as a student. In addition to being preoccupied with formal activities, students also have additional activities for those who follow the organization [16]. Of course, not all the activities they do are in the same place. Sometimes activities that they do will move places. So the students definitely need a means of transportation. It's just that not all students have personal transportation. So they need a common transportation tool. However, public transportation is considered inefficient because it takes time to wait for other passengers or even the transportation equipment does not pass the expected destination. with such busy activities required efficient and practical transportation available but at a low price [17]. Therefore, students have more interest in the existence of motorcycle taxis online.

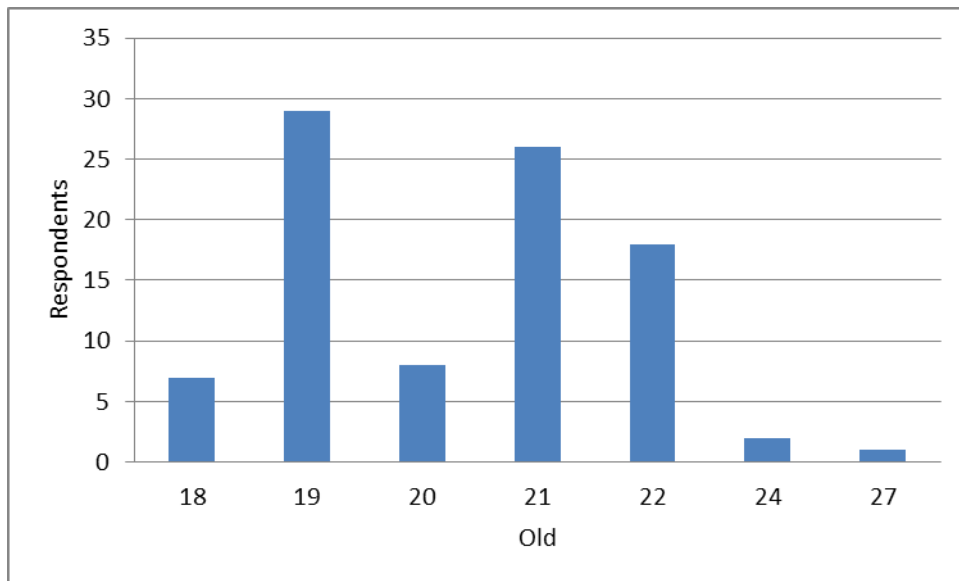


Fig.2. Percentage of respondent age

III. RESEARCH PROCESS

The research method used in this research is a survey which is a quantitative research approach. Where the number of respondents is 91 students. Data collection techniques are done by doing data collection through the spread of an online questionnaire that is google form. The distribution of questionnaires was done randomly on several campuses in Java Island through social media (line and WhatsApp). The data retrieval process lasts for a week and produces some data. Fig.1. is research process for user experience measurement on Go-Jek mobile app of students. The data is finally processed and analyzed to determine the value of customer satisfaction. Thus it can be known the user experience for Go-Jek applications.

IV. RESULTS AND DISCUSSION

Based on the research that has been done, generated some data as follows:

A. Characteristics of respondents based on age

Age of respondents affects the application as in Fig.2. From the survey results seen that the respondent application of the biggest gojek at age 19 years. Because respondents in these ages are accustomed to using an app device. In addition, 19-year-old respondents are categories of students seeking cheap and fast transportation. While respondents aged 25 years fewer interested in G0-Jek service. They prefer online taxi service. Because at the age of over 25 years most are already working and choose a fast and convenient transportation

B. Respondents Response Regarding Use of Go-Jek Application

Fig.3 as a result of the easy-to-use survey of Go-Jek

applications. The main thing for mobile computing applications is the ease of using it. A complicated application if the operation is easy it will make people interested to use it. If it is too difficult, then people will assume the application is not interesting.

C. Respondents Response Regarding Services Provided Driver Go-Jek

More than half of respondents thought that the Go-Jek driver searching process itself did not take a long time. So it can be seen that Go-Jek is one effective online transport. Even thus, there are also who feel that the search takes longer. This is because the location of the pickup which is a remote place or on the day of booking a driver is a big day. This result is seen in Fig. 4 about respondents response regarding Go-Jek driver search process.

For services provided by the driver was deemed quite

good as in Fig.5. Over 70% think well even more than 24% categorize very well. For users who feel the service is not good is because they have experienced the rejection of the driver when knowing that the pickpocket is a terminal or station. Rejection is certainly not without reason. Because some public transportation places ban online transport in their area.

D. Respondents Response Regarding Rates of Go-Jek

More than half of respondents on Fig.6 thought that the Go-Jek driver searching process itself did not take a long time. So it can be seen that Go-Jek is one effective online transport. Even so, there are also who feel that the search takes longer. This is because the location of the pickup which is a remote place or on the day of booking a driver is a big day.

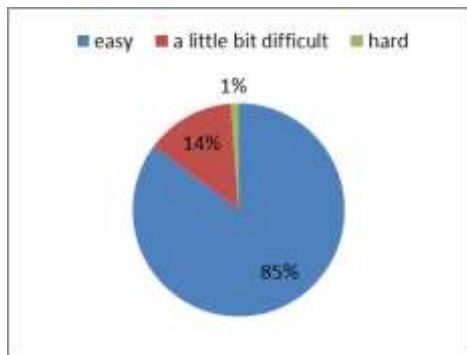


Fig.3. Level of Convenience in Operating Go-Jek Applications

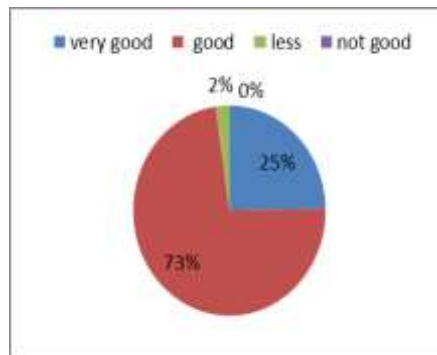


Fig.5. Respondents' Response Regarding the Service Provided by Driver Go-Jek

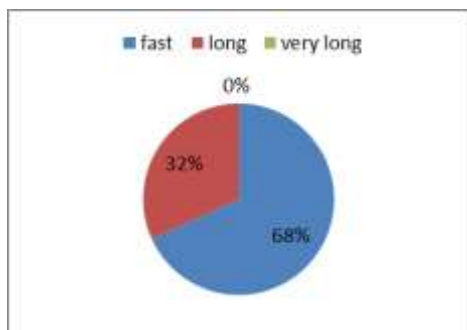


Fig. 4. Office of Respondents Comparing Go-Jek Drivers

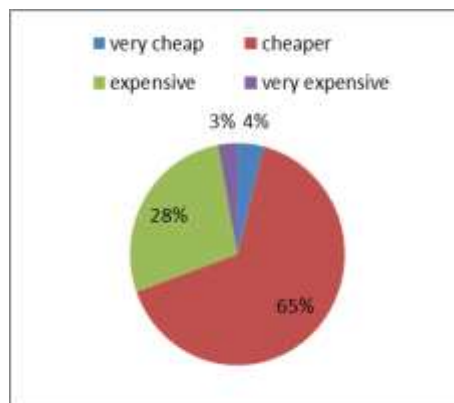


Fig. 6. Respondents Response Regarding Go-Jek Rates

For services provided by the driver was deemed quite good. Over 70% think well even more than 24% categorize very well. For users who feel the service is not good is because they have experienced the rejection of the driver when knowing that the pickpocket is a terminal or station. Rejection is certainly not without reason. Because some public transportation places ban online transport in their area.

From the results obtained, most of the respondents gave a positive response when using Go-Jek applications. In addition to the ease of use and manufacture of the application, the services provided were considered good. Especially the most important for students is the tariff charged by this application is quite cheap and affordable. Also in the efficiency of time, in the process of finding the driver does not require a long time. Although some experience in waiting time takes more time, it is not caused by the Go-Jek company itself. Instead, it happens because of a condition that causes less efficient pickup time.

V. CONCLUSION AND FURTHER WORKS

From the results of research that have been done, it can be concluded that the user experience for Go-Jek applications from among students in Java tends to have a good image. So

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that caused many students to prefer Go-Jek compared to other online motorcycle company. Supported by the ease of using the application and the services provided are considered good enough, Go-Jek is considered one of the main choices in the hearts of students. Yet there are still shortcomings of Go-Jek itself in terms of service. For now, Go-Jek and other online motorcycle companies have not been able to serve pick-up and delivery in conventional transportation places or areas such as terminals and stations. Because the place has been controlled by conventional ojek and taxi.

For further research, research can be done on user experience or user experience from GoJek that is focused on certain places such as Kota Wisata or Kota Pelajar such as Malang, Jogja or Bali. Because we know that the city is a densely populated city. So it does not deny that the density of their mobility will cause them to use the means of transportation online. Especially to avoid jams.

In addition, research can also be conducted to compare inter-company online transactions in the city in order to know the advantages and disadvantages of each company research can also be conducted to compare inter-company online transactions in the city in order to know the advantages and disadvantages of each company.

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REFERENCES

- [1] P. Tutuko, R. David, and E. Sonalitha, "Transformasi Ojek Tradisional ke Ojek Online," vol. 3, no. 1, pp. 76–79, 2016.
- [2] A. Chan, M. Maharani, and W. Tresna, "(STUDY ON PT . GO-JEK AND PT . GRAB INDONESIA CONSUMER IN DKI JAKARTA) PERBANDINGAN PENGALAMAN PENGGUNA PADA APLIKASI MOBILE GO-JEK DAN GRAB (STUDI PADA KONSUMEN PT GO-JEK DAN PT GRAB INDONESIA DI DKI JAKARTA) ABSTRAK," vol. 2, no. 2.
- [3] P. Aarabi, "Mobile E-Commerce Data Processing Using Relational Memory," pp. 910–915, 2017.
- [4] H. Joo, "A Study on Understanding of UI and UX , and Understanding of Design According to User Interface Change," vol. 12, no. 20, pp. 9931–9935, 2017.
- [5] R. Vasa, L. Hoon, K. Mouzakis, and A. Noguchi, "A Preliminary Analysis of Mobile App User Reviews," pp. 241–244, 2012.
- [6] R. E. Roth, "User Interface and User Experience (UI / UX) Design," no. January, 2017.
- [7] C. Rusu, "Usability versus User Experience : Theory and Practice," 2013.
- [8] M. Orlova and I. Technology, "USER EXPERIENCE DESIGN (UX DESIGN) IN A WEBSITE DEVELOPMENT Website redesign," no. December, 2016.
- [9] L. J. Benstead, K. Kao, P. F. Landry, E. M. Lust, and D. Malouche, "Using Tablet Computers to Implement Surveys in Challenging Environments Forthcoming," pp. 1–9, 2016.
- [10] C. G. Gómez, "The inclusion of methodologies user experience in the consulting industry : an approach to the experience of Capgemini," 2016.
- [11] S. L. B. Silalahi, P. W. Handayani, and Q. Munajat, "ScienceDirect Service Quality Analysis for Online Transportation Services: Case Study of GO-JEK," *Procedia Comput. Sci.*, vol. 124, pp. 487–495, 2018.
- [12] S. Nurchotimah, P. P. Islam, F. Ushuludin, D. A. N. Filsafat, U. Islam, and N. Sunan, "TRANSPORTASI ONLINE DI TERMINAL PURABAYA," 2018.
- [13] Y. Zhai, H. Wu, H. Fan, and D. Wang, "Computers ,

- Environment and Urban Systems Using mobile signaling data to exam urban park service radius in Shanghai : methods and limitations," *Comput. Environ. Urban Syst.*, no. 1239, pp. 0–1, 2018.
- [14] H. D. Prasetya, M. Legowo, O. Pangkalan, and E. Ojek, "Rasionalitas Ojek Konvensional dalam Mempertahankan Eksistensi di Tengah Adanya Gojek di Kota Surabaya RASIONALITAS OJEK KONVENSIONAL DALAM MEMPERTAHANKAN EKSISTENSI DI," pp. 1–7.
- [15] "Student Activities & Involvement Benchmarking Study Spring 2012," 2012.
- [16] J. D. Foubert and L. U. Grainger, "Effects of Involvement in Clubs and Organizations on the Psychosocial Development of First-Year and Senior College Students," vol. 43, no. 1, pp. 166–182, 2006.
- [17] C. Schmitz, S. Bartsch, and A. Meyer, "Mobile App Usage and Its Implications for Service Management – Empirical Findings from German Public Transport," *Procedia - Soc. Behav. Sci.*, vol. 224, no. August 2015, pp. 230–237, 2016.

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