

Influence of system, information and digital payment qualities on customer satisfaction of gojek super app

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Abstract

In the era where technology and big data play the key role in determining success, a lot of startups emerged utilizing the opportunities to grab market, Gojek is one of the successful startups which claimed itself as the first super-app in the world. Despite its claim, Gojek faces intense competition with Grab, another super-app in Indonesia, and therefore ensuring qualities in its application hold important role to determine customer satisfaction to maintain the market. This study aims to analyze the effect of qualities attributes of system, information, and digital payment on customer satisfaction of Gojek Super Application through a sample of 100 respondents which were selected through purposive sampling method. The result revealed that system, information, and digital payment quality affected customer satisfaction significantly both partially and simultaneously. This research recommends Gojek to evaluate the service quality in its super app by considering the qualities of system, information and digital payment to improve customer satisfaction.

Key words: Customer satisfaction; system quality; information quality; digital payment quality

INTRODUCTION

Since Uber established in 2009 as first taxi app in the world, the trend of online transportation has emerged and keep evolving, including in Indonesia. In Indonesia, both Gojek and Grab as a super app compete tightly to provide range of services from transportation, logistic, and life-style (Pratama, 2016). It is interesting to undertake research in this field since Gojek strategy to be super app providing range of services often faced by Grab Strategy who offer similar services to Gojek, such as Grab Ride vs Go Ride, Grab Food vs. Go Food and also its payment platform Go-Pay vs Ovo. With such similar service offerings and tight price competition, it gives awareness to both companies to improve their service quality to be able to win the competition and maintain their loyal customers. Therefore, service quality is a critical aspect to consider. According to Kursunluoglu Yarimoglu (2015), service quality offers long-term success which leads to firms' competitive advantage. As this study focus on service quality on online transportation through mobile application platform, the term used is m-service quality. Mobile service quality is the adaptation of electronic service quality. Electronic service quality refers to website's qualities to undertake purchases, sales, and delivery of both products and services in an efficient and effective way (Anggraeni, Ni Made Savitri & Yasa, 2017) while mobile service quality or also known as MS-QUAL primarily focus on mobile service. Some of the variables of mobile service quality are system, information, and digital payment qualities which will be the focus of this research.

According to Silalahi, Handayani, & Munajat (2017), online transportation services are unique in term of the nature of its services and the user's tendency to use the services repeatedly. The repetition of the service commonly derived from satisfaction of the customer. According to Felicia (2016), service quality is important factor which leads to customer satisfaction, retention, and loyalty. Therefore, the author is interested to study the impact of system, information, and digital payment qualities on customer satisfaction of online transportation services, particularly Gojek as the largest online transportation service in Indonesia.

Gojek is selected as it is the first super-app in the world which provide range of services such as Go-Box, Go-Mart, Go-Daily, Go-Bills, Go-Fix, Go-Clean, Go-Laundry, and Go-Auto (Siagian, 2018). In addition, "it has the largest number of users compared to its competitors in Indonesia" (Freischlad, 2017) and also perceived more aggressive in social entrepreneurs programs compared to its competitors (Satrya, 2015). However, studies on mobile service quality are still limited especially on online transportation services in mobile platform. Therefore, this research aims to complement previous research findings by examining the effect of mobile service qualities particularly information, system, and digital payment qualities toward customer satisfaction.

Literature Review

Super App

According to Lazaridis (2010) on (Ponnappa, 2019), super app represents a new class of mobile applications that make you wonder how you ever lived without them. According to (Ponnappa, 2019), a super app is many apps within an umbrella app. It is an Operating system that unbundles the tyranny of apps and the portal to the internet for a mobile-first generation.

Service Quality

Mobile Service Quality is a new version of E- SERVQUAL. E-SERVQUAL is common for website-based service while M-SERVQUAL is intended for mobile-based service. Developments in mobile services continue to grow due to excitement for mobile technology and on-going growth of e-commerce (Kleijnen, M., Ruyter, K. d. and Wetzels, 2004; Wang, K. and Lin, 2012)

In electronic service's scope, Noorshella, Abdullah, & Nursalihah (2015) stated that service quality was recognized as crucial aspect which determines the competitive advantage of online firms. The E-SERVQUAL model which considered to be the most comprehensive and integrative, is the model proposed by Zeithaml, V. A., Parasuraman, A., Malhotra (2002).

Zeithaml, V. A., Parasuraman, A., Malhotra (2002) identified seven dimensions of e-SERVQUAL: First, "efficiency, refers to the ability of customers to access website, pursuit any products and information, and leave the website with minimum effort". Second, "reliability, refers to the technical functionality of the website, whether the website is available and working appropriately". Third, "fulfillment, refers to the precision of service, obtainability of product, and product delivery in accordance with the promised time". Fourth, "privacy, refers to the guarantee that shopping behavior

data will not be given to any other party and that any payment information is guaranteed”. Fifth, “responsiveness, refers to the ability of online retailers to provide the right information to customers when problems arise, have a mechanism to handle product returns, and provide an online guarantee”. Sixth, “compensation, this include refunds, shipping fees, and product handling fees”. Seventh, “contact, refers to the customer's need to be able to talk to customer service staff online or by telephone”.

The model proposed by Zeithaml et al (2010) was also adopted by (Sari & Yuniarti, 2011) in their research on Gojek e-service quality and its effect on customer satisfaction in Jambi. They found that e-service quality affected customer satisfaction of Gojek in Jambi and indicated that efficiency was the most dominant sub-variable among e-service quality variables (Sari & Yuniarti, 2011).

Bauer HH, Falk T (2006) pointed out that functionality and design are important in customers' evaluation of service quality. They focused on the technical quality aspects and mentioned that ease of use for web sites will be crucial. At the same time, Bauer HH, Falk T, (2006) pointed out that enjoyment is vital aspect used by customers to assess the services. User interface is another variable in evaluating service quality (Nroos et al, 2000). Risk is also another important issue effecting the decision of the customers (Kleijnen, M., Ruyter, K. d. and Wetzels, 2007). Lee, M.S.Y., McGoldrick, P.J., Keeling, K.A. and Doherty (2003) found that perceived attributes and risk perceptions are used by customer to assess quality in mobile services (Lee, M.S.Y., McGoldrick, P.J., Keeling, K.A. and Doherty, 2003).

Silalahi et al (2017) used three variables namely information quality, system quality, and service quality in evaluating dimensions of mobile service quality towards customer satisfaction and found that ease of use were the highest indicators among others. In addition, Fauzi (2018) researched the impact of service quality on repurchase intention with the variables of information quality, application design, payment method, and security and privacy.

Information Quality

According to Ngoc Duy Phuong & Thi Dai g (2018), “information quality is perception of customer on the quality of information of mobile application”. “Information quality consists of two dimensions, namely content adequacy (reliability, sufficiency, and completeness of information provided) and content usefulness (informativeness and valuableness of information displayed)”.

System Quality

According to Ngoc Duy Phuong & Thi Dai g (2018), “system quality is customers' perception of information recovery and delivery of a mobile application”. To evaluate system quality, four dimensions including ease of use (degree of person's perception that using the system is free of effort), navigation (evaluation of links to needed information), interactivity (accessing search engine and the personal design, i.e., the shopping cart feature), and accessibility (speed of access and availability of system) are employed.

Digital Payment Quality

According to Mulyasari, Dan, & Wijaya (2014), “several factors which affected customer satisfaction in digital payment include overall service quality, security, perceived enjoyment, perceived speed, ease of use, perceived benefits, and actual use”.

Customer Satisfaction

According to Hellier, Geursen, Carr, & Rickard (2003), customer satisfaction is defined as “the degree of overall pleasure or contentment felt by the customer, resulting from the ability of the service to fulfil the customer's desires, expectations and needs in relation to the service”. According to Kotler, P., Armstrong, G., and Opresnik, (2017), “customer satisfaction is how a quality of the product produced by companies matches customers' expectation”. If the products are below customers' expectation, the customers will be displeased. If the products are in line or above customers' expectations, then the customers are pleased. Customer satisfaction is critical for companies' success as it leads companies to gain market share and profitability.

Relationship between service quality on mobile application and customer satisfaction

Fauzi (2018) researched on the impact of electronic service quality on repurchase intention. The results of the study indicated “all dimensions of electronic service quality namely information quality, application design, payment method, and security and privacy positively influence repurchase intention through customer satisfaction”. Santoso, A., and Aprianingsih (2017) revealed “the relationship of service quality and electronic service quality towards repurchase intention which was mediated by customer satisfaction. This research concerned with electronic service quality with seven dimensions

namely security, reliability, responsiveness, application design, trust, ease of use and fulfilment". In addition, Silalahi et al (2017) found that "three dimensions of mobile service quality included information quality, service quality and service quality affected customer satisfaction". In addition, she also pointed out top three of the indicators for service quality for Gojek that leads to customer satisfaction are perceived cognitive, ease of use, and perceived website innovativeness through entropy analysis. Furthermore Ngoc Duy Phuong & Thi Dai g (2018) found that "electronic service quality of information system were significant predictors of overall perceived service quality and confirmed the relationships of the information quality, system quality and service quality representing the electronic service quality on the overall service quality, which directly effects customer satisfaction".

METHOD

Research Methods

Research methodology shows how the research is conducted including the research process and approach. The author started with structuring the problem regarding the urgency to analyze the relationship between M-SERVQUAL towards customer satisfaction on Gojek super-app. This research is worth to conduct to provide complementary researches on mobile service quality and Gojek is chosen since it dominates the other market player in transportation industry and pioneered the super-app which also handles delivery and beauty services. The author is interested to identify how m-service quality of Gojek influence customer satisfaction. Then, after structuring the problem, the author started with reviewing the literatures regarding E-SERVQUAL, M-SERVQUAL, and customer satisfaction. Afterwards, author developed research instruments which determines variables to form questionnaire as data collection's method. All items in the variables are measured using a Likert-type scale (ranging from 1 = strongly disagree to 5 = strongly agree). After the data is collected, the data is analyzed by using SPSS, and then the result is interpreted which lead to findings, recommendations, and conclusions.

Population and Sample

The population of the research were people who have already installed Gojek application and the criteria for sampling is user who installed Gojek application as well as have experienced more than one Gojek service in Samarinda such as Go Ride, Go-Car, Go-Send, etc. Ghazali (2008) stated that one of the techniques to determine number of samples used is multiply the indicators of overall latent variables by 5 to 10, to obtain a minimum number of samples. This research involves as many as 13 indicators. Consequently, sample size is minimum $5 \times 13 = 65$ respondents up to 10×13 or as high as 130 respondents. The online questionnaire was distributed mainly through Whatsapp and Telegram from June to July 2019.

Data Analysis

The questionnaire was tested using reliability and validity test. Afterwards, the data was analyzed through multiple regression analysis by SPSS.

RESULTS AND DISCUSSIONS

Description of the Respondents

There were 157 respondents filling out the questionnaires but only 100 respondents were used because the remaining were respondents from outside Samarinda, or have not installed Gojek, or merely used one service of Gojek. According to 100 usable respondents, 6 percent were <17 years old (n=6), 40 percent were 17-25 years old (n=40), and 30 percent were 26-35 years old (n=3), 15 percent were 36-45 years old (n=15), 8 percent were 46-55 years old (n= 8 %), 1 percent were 56-65 years old (n=1), and no respondents were above 65 years old.

Regarding the gender distribution, approximately 31 percent were male (n=31) and 69 percent were female (n=69). Regarding the education level, approximately 31 percent were elementary school to high school in terms of their level education (n=31), 5 percent were diploma graduate (n=5), and 38 percent were from graduate school (n=38), and 24 percent were master degree, and 2 percent were doctoral degree. Regarding to the most frequent Gojek service used were Go-Food followed by Go-Car, Go-Ride, Go-Send, Go-Box, Go-Clean, and Go-Shop.

Table 1.
 Result of Validity Test

Item	rx _y	Sig.	r table	sig 0.05 (5 %)	Conclusion
x1.1	0.785	0.00	0.1966	0.05	Valid
x1.2	0.845	0.00	0.1966	0.05	Valid
x1.3	0.728	0.00	0.1966	0.05	Valid
x1.4	0.823	0.00	0.1966	0.05	Valid
x2.1	0.75	0.00	0.1966	0.05	Valid
x2.2	0.85	0.00	0.1966	0.05	Valid
x2.3	0.734	0.00	0.1966	0.05	Valid
x2.3	0.775	0.00	0.1966	0.05	Valid
x2.4	0.744	0.00	0.1966	0.05	Valid
x2.5	0.348	0.00	0.1966	0.05	Valid
x3.1	0.956	0.00	0.1966	0.05	Valid
x3.2	0.956	0.00	0.1966	0.05	Valid
y1.1	0.944	0.00	0.1966	0.05	Valid
y1.2	0.94	0.00	0.1966	0.05	Valid

Validity test is used to measure the validity of questionnaire by seeing the value of significance or/and comparing the value of r_{xy} table with r product moment. According to Table 2 above, all r_{xy} values < r table product moment and the value of significance < 0.05, thus all items in questionnaire are valid.

Table 2.
 Result of Reliability Test
 Reliability Statistics

Cronbach's Alpha	N of Items
.914	13

Reliability test is undertaken after validity test and it aims to see whether the questionnaire has the consistency if the questionnaire is re-taken. According to Sujerweni (2014), questionnaire is considered reliable if the Cronbach alpha >0.6. Table 2 above shows the value of Cronbach alpha is 0.914 which is greater than 0.6, therefore the questionnaire is considered variable.

Table 3.
 Multiple Linear Regression Result
 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-.627	.722		-.869	.387
	Information Quality	.128	.060	.206	2.122	.036
	System Quality	.231	.052	.433	4.457	.000
	Digital Payment Quality	.246	.059	.296	4.143	.000

a. Dependent Variable: Customer Satisfaction

Table 3 shows the Multiple Linear Regression as follow: $Y = -0.627 + 0.128X_1 + 0.231X_2 + 0.246X_3$. The regression coefficient variable information quality (X₁) 0.128 means information quality variable positively influence customer satisfaction. This means if another independent variable value is constant then information quality increase amounting to one unit, so customer satisfaction (Y) will increase by 0.128. The regression coefficient variable system quality (X₂) 0.231 means system quality positively influenced customer satisfaction. This means if another independent variable value is constant then system quality amounting to one unit, so customer satisfaction (Y) will increase by 0.231. The regression coefficient variable convenience (X₃) 0.246 means digital payment quality variable proven to show the positive relationship direction on customer satisfaction. This means if another independent variable value is constant then convenience increase amounting to one unit, so customer satisfaction (Y) will increase by 0.246.

Hypothesis Testing

The statistical t-test (partial) indicates that each independent variable has partial influence on customer satisfaction. Based on the table 5, it can be described as follows: information quality (X₁) variable has a significance value (Sig.) 0.036 with α (significance degrees) value 0.05 means $0.036 <$

0,05 and $t_{2,122} > t_{table} (0.67708)$. Thus, it can be concluded that H_0 rejected or H_1 accepted. This means that information quality partially has significant influence on customer satisfaction. The results of first hypothesis shows that information quality affects customer satisfaction. Information quality in this research refers to the quality of the content, accuracy of the content, and reliability of the content. The education profile of the majority of respondents is bachelor degree (38%) and most of the respondents have education background above high school amounted to 69 %. Based on the education level of respondents, this shows the conformity between result of first hypothesis and profile of the respondents as they pay attention to accuracy, content and the extent to which data in the application can be trusted. Based on these findings, Gojek must ensure that driver's data, prices listed on the application, and other service provider data (Go-Auto, Go-massage, and Go-Box) are true, considering this affects consumer satisfaction.

System quality (X2) variable has significant value (Sig.) 0,000 with α (significance degrees) value 0,05 means $0,000 < 0,05$ and $t_{4,457} > t_{table} (0.67708)$. Thus, it can be concluded that H_0 rejected or H_2 accepted. This means that digital payment quality partially has significant influence on customer satisfaction. The results of second hypothesis shows that system quality affects customer satisfaction. System quality in this research refers to ease of use, navigation, and accessibility. Based on these findings, Gojek must provide easiness for user to scroll between menu, page, and service as well as prevent lacking in the system (error) as we consider the Gojek as a super app which provides many services in one app.

Digital payment quality (X3) variable has significant value (Sig.) 0,000 with α (significance degrees) value 0,05 means $0,000 < 0,05$ and $t_{4,143} > t_{table} (0.67708)$. Therefore, it can be concluded that H_0 rejected or H_3 accepted. This means that digital payment quality partially has significant influence on customer satisfaction. The results of third hypothesis shows that digital payment quality affects customer satisfaction. Digital payment quality in this research refers to ease of using Go-Pay and security of Go-Pay. Based on these findings, Gojek must provide easiness for users to top up the amount in Gopay by providing many options of merchants/methods which gives easiness to users to top up the amount. Besides, Gojek also must put more attention in the security aspect of its digital payment as it affects customer satisfaction.

Table 4.
F Test Result
ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	125.718	3	41.906	51.417	.000b
	Residual	78.242	96	.815		
	Total	203.960	99			

a. Dependent Variable: Total_Y

b. Predictors: (Constant), Total_X3, Total_X1, Total_X2

The statistical F-test indicates that mobile service quality has simultaneous influence on customer satisfaction. Table 6 shows F value is 51.1417 which is greater than F table 0.12 and significance value which is $0,000 < \alpha = 0,05$, it indicates that the model is significant. Thus, it means H_0 rejected and H_4 accepted where it can be concluded that the information quality (X1), system quality (X2), digital payment quality (X3) variables simultaneously have significant influence on customer satisfaction.

Table 5.
Coefficient Determination (R2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785a	.616	.604	.903

a. Predictors: (Constant), Total_X3, Total_X1, Total_X2

Table 7 shows R square value is 0.616 or (62%). This shows that the percentage contribution of information quality (X1), system quality (X2), digital payment quality (X3) simultaneously affects customer satisfaction (Y) is 62%. While the rest 38% influence or explained by other variables were not included in this research. Based on this finding, it is found that there is strong relationship between independent variables and dependent variable which is shown from the value of coefficient correlation of 0.785.

CONCLUSION

This research concludes that each system, information, and digital payment quality affects customer satisfaction partially. This research also found that information quality, system quality, and digital payment quality affect customer satisfaction simultaneously. Theoretical implication from this research has enriched the field of research within service quality on mobile based application. This can be used as a reference for Gojek to put more attention on its quality of information, system, and digital payment.

This study also contributes to disciplines of marketing particularly on service quality of mobile application by identifying criteria to assess the service quality of Gojek super app. The criteria are based on previous studies in electronic and mobile service quality. The practical implication of this study is that Gojek can evaluate the service quality in its super app using quality of system, information, and digital payment. This will help Gojek to improve its quality of service which leads to customer satisfaction.

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