Analysis of the Effect of Service Quality on Gojek Application User Satisfaction Using the Servqual Method

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ARTICLE INFO	ABSTRACT
Keywords: *Analysis,* *Satisfaction,* *Service,* *Servqual,* *Quality.*	*This study aims to analyze the effect of service quality indicators (tangible, reliability, responsiveness, assurance, and empathy) on the satisfaction of Gojek application service users. The method used is quantitative with the population of all Gojek application users. The primary data source was obtained from an online questionnaire of 200 respondents in DKI Jakarta, using SEM (Structural Equation Modeling) and IBM AMOS software. The results showed that physical evidence indicators had a significant positive effect on Gojek application user satisfaction, while indicators of reliability, responsiveness, assurance, and empathy did not have a significant effect. The implication of this research is that physically visible aspects play an important role in influencing Gojek app user satisfaction, while other aspects may need to be reconsidered in service development strategies to improve overall user satisfaction. Quantitative analysis methods and SEM techniques also prove their importance in understanding the dynamics of the relationship between service quality and user satisfaction in the context of digital applications. The practical implication is that service providers can focus on improving physical evidence to improve user experience and maintain a strong customer base in the digital services industry.*

INTRODUCTION

One of the growing online transportation providers in Indonesia today is Gojek. Gojek pioneered mobile application-based Ojek services through its GoRide service. (Iskantika, 2022). With this, Gojek application users order a motorcycle taxi online through the mobile application, which will later be picked up by a Gojek driver who responds to the user's or prospective passenger's order. Payment transactions are made when the user gets to the destination. The fare charged varies based on the distance traveled or the flat rate applied. Some of Gojek's competitors are Grab with its GrabBike and Blu-Jek. Both of these companies have services similar to Gojek's GoRide service. (Adi & Suryawardana, 2019).

User satisfaction is one of the critical factors in the development of a company's business. This is because the more satisfied consumers are with a product, the better the quality of the product. According to (Asbar & Saptari 2018)(Asbar & Saptari, 2018), customer satisfaction is an aftermarket evaluation where at least it provides results (outcomes) equal to or exceeding customer expectations. Meanwhile, dissatisfaction arises if the results obtained do not meet customer expectations.

According to (Hulud et al., 2022)in their research entitled "The Effect of Service Quality, Price Perception, and Brand Image on Customer Satisfaction of Online Ojek Transportation Service Users," good service quality can be a competitive advantage for service companies. Service quality is also the key to achieving success. Whether or not the quality of service of goods or services depends on the producer's ability to meet consumer expectations consistently. Service quality is considered satisfactory if the perceived service is the same or exceeds the expected service quality. This kind of service is perceived as quality and satisfying service. Consumer expectations are reflected in good service, hospitality, courtesy, timeliness, and speed do consumers expect essential values. (Sianipar, 2019).

Satisfied consumers will indirectly encourage word-of-mouth recommendations and can even improve the company's image in the eyes of consumers. (Muis, Fathoni, & Minarsih, 2018). Therefore, service quality must be the main focus of the company's attention because it can create customer satisfaction. Based on the above background, the authors conducted a study titled Analysis of the Effect of Service Quality on Gojek Application User Satisfaction. Using the Servqual Method, this study aims to determine the effect of factors (tangibles, reliability, responsiveness, assurance, and empathy) on service quality and Gojek application user satisfaction. (Iskantika, 2022).

Based on the identification of the problems mentioned above, this study aims to analyze the influence of the tangibles indicator in service on the satisfaction of Gojek application users. To analyze the influence of reliability indicators on the satisfaction of Gojek application users in service. To analyze the influence of the responsiveness indicator in service on the satisfaction of Gojek application users. To analyze the influence of the assurance indicator in service on the satisfaction of Gojek application users. To analyze the influence of the empathy indicator in service on the satisfaction of Gojek application users. (Iskantika, 2022).

Gojek

Gojek was founded by Nadiem Makarim, an Indonesian citizen who graduated with a Master of Business Administration from Harvard Business School. The idea of establishing Gojek emerged from Nadiem Makarim's experience of using Ojek transportation almost daily to get to his workplace and beat traffic jams in Jakarta. At that time, Nadiem was still working as co-founder and managing director at Zalora Indonesia and chief innovation officer at Kartuku. (Rahman, 2020). On October 13, 2010, Gojek was officially established with 20 drivers. At that time, Gojek relied on call centers to connect passengers with Ojek drivers. In mid-2014, thanks to the popularity of Uber, Nadiem Makarim began to get investment offers. On January 7, 2015, Gojek finally launched Android and iOS-based applications to replace the call center ordering system. (Akad & Harun, n.d.)..

To develop its application, Gojek acquired several companies in India and opened an office in Bengaluru, an area known as India's Silicon Valley. Gojek's relationship with India began in April 2015, when It hired C42 Engineering, a software engineering company, for two months in Jakarta to fix bugs in its application. This relationship was created thanks to Sequoia Capital, one of Gojek's investors. (Tang, Rahim, & Baso, 2020).

Based on the background above, the purpose of this study is to analyze the effect of service quality indicators (tangible, reliability, responsiveness, assurance, and empathy) on the satisfaction of Gojek application service users. So the benefit of this research is that this research will provide a deeper understanding of how certain aspects of service quality specifically affect user perception and satisfaction in the context of the Gojek application. This can help developers and service providers better understand user priorities and areas for improvement.

METHOD

The research object in this study is the information system of the Gojek application. The model used in this study is a research model regarding service quality because this study aims to determine the quality of a website. This study aims to determine the effect of the service quality of the Gojek application on user satisfaction. To measure service quality, research instruments based on servqual instruments are used, namely tangibles, reliability, responsiveness, assurance, and empathy. The population in this study were all users of the Gojek application. The sampling technique used in this study is nonprobability sampling. The reason for selecting samples using the purposive sampling technique is that not all samples have criteria for what has been determined. Therefore, the purposive sampling technique is chosen by determining specific considerations or criteria that must be met by the samples used in this study. Because this study uses the SEM method, the criteria used in determining the sample must meet the minimum sample size criteria in SEM, as seen in Table 1.

Table 1. SEM Minimum Sample Size

Many Variables	Minimum Sample Size
3	200
5	200
10	200
15	360
20	630
25	975
	1395

In this study, a sample of 200 respondents was used; this was done to reduce errors in the questionnaires that had been collected, and the results of the data analysis were more accurate.

Variable identification in this study is used to assist in determining data collection tools and techniques. In this study, the independent variables studied were tangibles, reliability, responsiveness, assurance, and empathy variables. While the dependent variable is user customer satisfaction. The data retrieval techniques used in this research are classical assumption analysis and hypothesis testing.

RESULTS AND DISCUSSION

Descriptive Analysis of Respondent Profile

In this study, the authors collected data using questionnaires that had previously been distributed. This study has 200 respondents or primary data sources, of which 52% or around 105 respondents are female, and 48% or around 95 respondents are male, as seen in the graph in Figure 1.
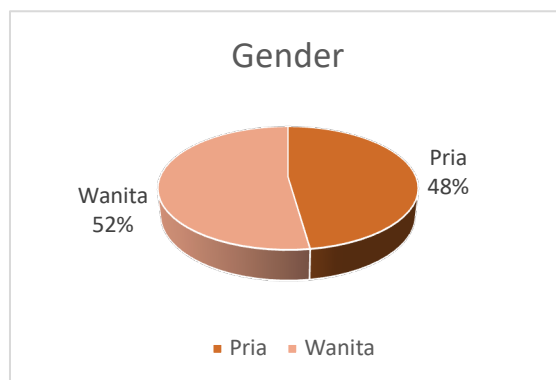

Figure 1: Graph of Respondents' Gender

Of the 200 respondents, 54% or around 108 respondents were aged 25-35 years, 21% or around 43 respondents aged 17-25 years, 10% or around 20 respondents aged 35-45 years, 8% or around 15 respondents aged >35 years and 7% of respondents aged <17 years, as can be seen in the graph in Figure 2.
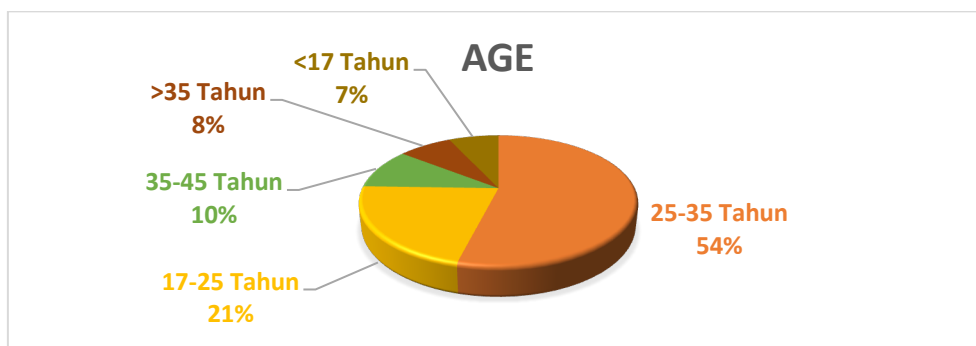

Figure 2: Age Chart of Respondents

In addition, the occupations of the 200 respondents in this study were 40%, or around 80 respondents were private / state employees, 15%, or around 31 respondents, were professional workers, 13%, or around 25 respondents, were daily workers, 12%, or around 24 respondents were students, 12% or around 23 respondents were civil servants/military/police and 8% or around 17 respondents worked taking care of the household as can be seen in the graph in Figure 3.
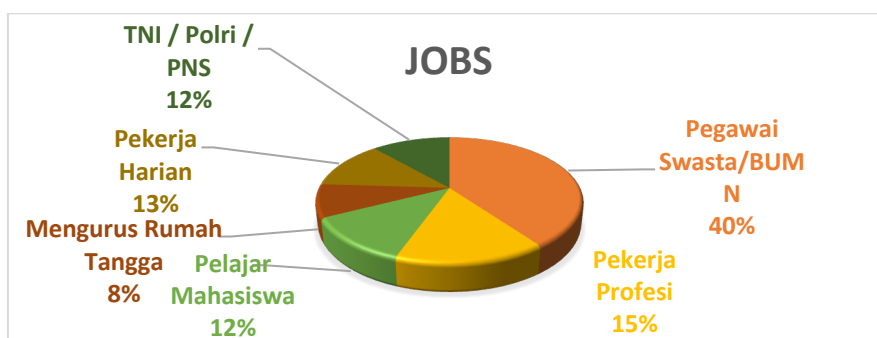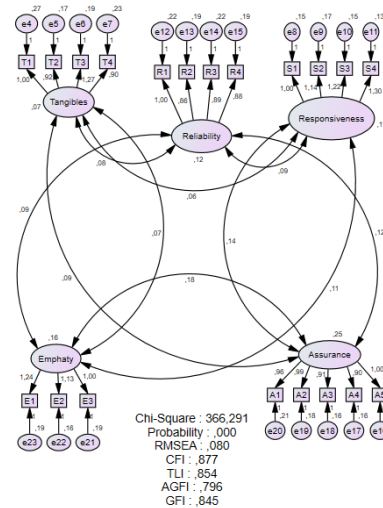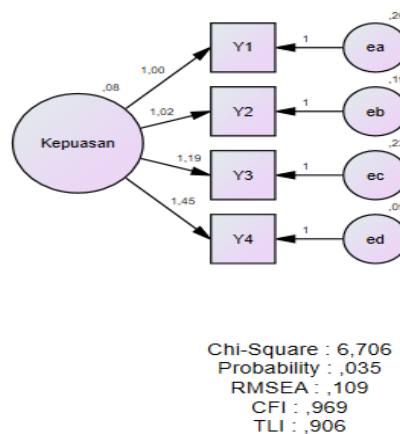
Figure 3: Graph of Respondents' Occupations

Validity and Reliability Test with Confirmation Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is a method used to test how well the measured variable can represent a previously formed construct or factor with a loading factor> 0.5. The z value and standardized loading factor measure validity analysis. (Maspupah & Alamanda, 2022). The z-value limit should be <1.96 with a significance of 5%. Alternatively, use the criteria suggested by Aquaria. If al (1997) in Haryono, S, and Wardoyo, P. (2012) state that the standardized factor load > or = 0.5 is very significant if there are variables whose values do not meet, they will be removed from the model. This study uses the process to assess validity and reliability tests with CFA using the IBM SPSS Amos 26 program.

Confirmatory Factor Analysis of Independent Variables

In Figure 4. namely Confirmatory Factor Analysis of Independent Variables consisting of tangibles, reliability, responsiveness, assurance and empathy, it can be seen that each indicator of the independent variable has met the loading factor requirements above 0.5, so that all indicators are acceptable.

Confirmatory Factor Analysis Dependent Variable

Overall Analysis of Equal Modeling Structure

After the research variables have met the criteria of the Confirmatory Factor Analysis (CFA) test, then the overall model analysis is carried out. Equal Modeling Structure (SEM) analysis was carried out using the Amos 26 program, and the following results were obtained:
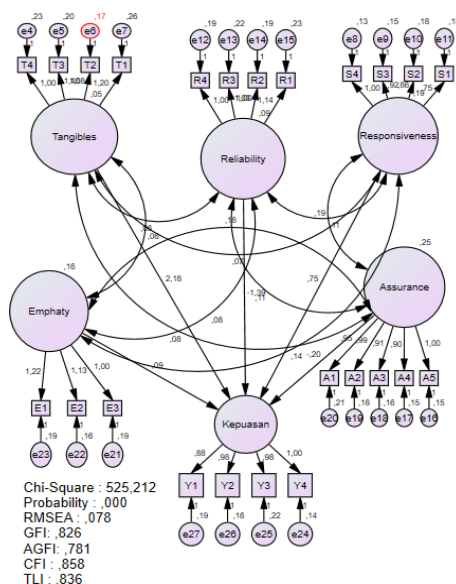
Figure 6. Equal Modeling Structure

There is no coefficient estimate in the structural model or measurement model whose value is above the acceptable limit. Furthermore, the overall model fit assessment is analyzed by assessing the goodness of fit. This process is carried out to determine whether the model is accepted or not by comparing the goodness of fit output from the AMOS 26 program with the goodness of fit criteria, as can be seen in Table 1.

Table 1. Overall Model Fit Test

Goodness of Fit Indicates	*Cut Off* Value	Result Value	Conclusion
Chi-square	Positive	525,212	Meet
CMIN/DF	<2.0	2.207	*Marginal fit*
RMSEA	<0.08	0,078	*Good Fit*
GFI	0 - 1.0	0,826	Good Fit
AGFI	0.90 - 0.95	0,781	*Marginal fit*
TAG	>0.95	0,836	*Marginal fit*
CFI	>0.95	0,858	*Marginal fit*
PGFI	*Parsimony > 0.5*	0.65	*Good Fit*
NFI	*>0,90*	0.772	*Marginal Fit*
CAIC	*< Saturated Model*	915,708 < 1889,495	*Good Fit*

Source: Primary Data Processed (2021)

In the goodness of fit in this study, there is a chi-square indicator (X2). Chi-square is a fundamental measuring tool for measuring overall fit. The chi-square (X2) test aims to test a model and develop one that fits the data. So, what is needed is an insignificant X2 value that tests the null hypothesis that the estimated population covariance is not equal to the sample covariance. In this study, the cut-off value of the chi-square is positive with a result value of 525.212, which means that the chi-square value in this model has met the model fit test. CMIN / DF is an indicator to measure a model's fit level, resulting from chi-square statistics (CMIN) divided by Degree of Freedom (D.F.). The expected CMIN / DF is ≤ 2.0, which indicates acceptance of the model. In this study, the CMIN / DF value obtained in this model is 2.207, which means that CMIN / DF is included in the marginal fit category. GFI can be adjusted against degrees of freedom to test whether the model is accepted. The estimated population covariance matrix explains the weighted proportion of the fit index to calculate the variance in the sample covariance matrix. The non-statistical measure of GFI has a range of values between 0 (poor fit) and 1.0 (perfect fit). A high value in this index indicates a better fit. The expected GFI is 0.90. In this study, the GFI value is 0.826, which means that the GFI is included in the good fit criteria. The recommended acceptance level is if AGFI has a value equal to or greater than 0.90. A value of 0.95 can be interpreted as a good level (good overall model fit). In contrast, a value between 0.90-0.95 indicates an adequate level (adequate model fit). In this study, the AGFI value obtained was 0.781, which means the AGFI is included in the marginal fit category. (ZAHFARINA, 2022).

An RMSEA value smaller than or equal to 0.08 is an index for model acceptability. The RMSEA index can be used to compensate for chi-square statistics in large samples. The RMSEA value indicates the goodness of fit that can be expected when the model is estimated in the population. In this model, the RMSEA value obtained is 0.078,

which means that RSMSE is included in the good fit category. The CFI index magnitude is 0-1, where getting closer to 1 indicates the highest level of model acceptance. CFI is not influenced by sample size because it is perfect for measuring the level of acceptance of a model. The expected CFI value is ≥ 0.95. In this study, the CFI value of this model is 0.858, which means that the CFI value is included in the marginal fit category. (Marsasi, Saputra, & Gusti, 2022)..

The TLI index value compares a model tested with a baseline model (Baumgartner & Homburg, 1996). The expected TLI value as a reference for the acceptance of a model is ≥ 0.95, and a value close to 1.0 indicates a perfect fit. In this study, the TLI value obtained in the model is 0.858, which means that the TLI index value is included in the marginal fit category. CAIC, which has a positive or smaller value, indicates that parsimony is better used for comparison between models; in this model, CAIC is 915.708 < 1889.495, so it can be categorized into the category of good fit. The NFI value is the magnitude of the mismatch between the target model and the base model. The NFI value ranges from 0 - 1. NFI ≥ 0.9 is a good fit, while 0.8 ≤ NFI ¬ 0.9 is a marginal fit; in this model, the NFI value is 0.77, meaning that the NFI is categorized as a marginal fit. The PGFI value is a modification of the GFI, where a high value indicates that the model is better used for comparison between models; in this model, the PGFI value is 0.65, which means that PGFI is categorized as a good fit.

Hypothesis Testing

Hypothesis testing is a test of a statement using statistical methods so that the test results can be declared statistically significant. (Santoso, Rahmawati, Setiyaningsih, & Asbari, 2023).. In this study, the alpha level used was a probability of 5% (0.05) with a Critical Ratio (C.R.) Z table value of 1.96. This means that the SEM test results on AMOS 26 are at the limit of the maximum P value of 0.05, so hypothesis 0 is rejected, and hypotheses 1, 2, and 3 are accepted. Then, if it relies on C.R., if the minimum C.R. is equal to or greater than 1.96, hypothesis 0 is rejected, and hypotheses 1, 2, 3, 4, and 5 are accepted. Table 4.11 summarizes the hypothesis of the effect of tangibles, reliability, responsiveness, assurance, and empathy on user satisfaction from the Gojek application.

Table 4. Hypothesis Test

Hip.	Path	Est.	C.R.	P	Hypothesis Decision 0	Conclusion
H1	T-Y	2.177	2.204	0.28	Rejected	*Tangibles* positively and significantly affect user satisfaction with the Gojek application.
H2	R-Y	1.395	1.354	0.176	Accepted	*Reliability* does not have a significant effect on user satisfaction of the Gojek application
H3	S-Y	0.747	1.291	0,197	Accepted	*Responsiveness* does not significantly affect the satisfaction of Gojek application users.
H4	A-Y	1.196	0.371	0.711	Accepted	*Assurance* does not have a significant effect on user satisfaction of the Gojek application
H5	E-Y	0.089	0.146	0.884	Accepted	*Empathy* does not significantly affect user satisfaction with the Gojek application.

Source: Primary Data Processed (2021)

Table 2 shows that the C.R. value on the tangibles variable is 2.204, which means C.R. is more significant than 1.96. The P value is 0.28, which means P is more significant than 0.05. Based on this value, the decision of hypothesis 0 is rejected, which means that the tangibles indicator significantly affects the satisfaction of Gojek application users. In the reliability variable, as can be seen in table 4.12, the C.R. value on the reliability variable is 1.354, which means that the C.R. is smaller than 1.96. The P value is 0.176, meaning P is more significant than 0.05. Based on this value, the decision of hypothesis 0 is accepted, which means that the reliability indicator does not significantly affect the satisfaction of Gojek application users. In the responsiveness variable, as seen in Table 4.12, the C.R. value on the responsiveness variable is 1.291, which means that the C.R. is smaller than 1.96. The P value is 0.197, meaning P is more significant than 0.05. Based on this value, the decision of hypothesis 0 is accepted, which means that the responsiveness indicator does not significantly affect the satisfaction of Gojek application users. (Marati, 2016).

In the assurance variable, as seen in Table 4.12, the C.R. value assurance variable is 0.371, which means C.R. is smaller than 1.96. The P value is 0.711, which means P is more significant than 0.05. Based on this value, the decision of hypothesis 0 is accepted, which means that the assurance indicator does not have a significant effect

on the satisfaction of Gojek application users. In the empathy variable, as can be seen in Table 4.12, the C.R. value of the empathy variable is 0.146, which means that C.R. is smaller than 1.96, and the P value is 0.884, which means that P is more significant than 0.05. Based on this value, the decision of hypothesis 0 is accepted, which means that the empathy indicator does not significantly affect the satisfaction of Gojek application users. (Sianipar, 2019).

Based on a series of tests on the model in this study, the tangibles, reliability, responsiveness, assurance, and empathy indicators on Gojek application user satisfaction can be fit. This means that the model used is close to empirical reality. Based on the results of the overall analysis and testing in this study, it was found that Tangibles are the company's ability to provide the best customer service, which is concrete. This means that the quality can be seen and felt directly by the customer. One form of tangibles from the Gojek application is providing discounts and cashback to users. (Harahap, 2021). The Gojek company must maintain this because it positively influences user satisfaction, which means that this satisfaction will also provide good feedback on Gojek's business development. In this study, the tangibles indicator positively influences user satisfaction. Reliability is the company's ability to provide customer services (Afrilliana, 2020). Although it does not significantly affect user satisfaction, providing the best service for users must still be improved. In this study, the reliability indicator did not significantly affect the satisfaction of Gojek application users. Responsiveness is directly related to responsiveness. That is, responsiveness is how the company provides services responsive to all customers' wants and needs. Usually, this responsiveness is followed by a coherent but still easy-to-understand delivery. Even though it does not significantly affect user satisfaction, providing the best response for users must still be improved. In this study, the responsiveness indicator did not significantly affect the satisfaction of Gojek application users. (Juniantara & Sukawati, 2018). Assurance is related to certainty, precisely the certainty that customers get from the behavior of business actors. This assurance can be obtained, for example, from good communication and extensive knowledge to a polite and courteous attitude to customers. (Nursiti & Mora, 2020). With assurance, customer confidence in the product or service offered will increase. In this study, the assurance indicator did not significantly affect the satisfaction of Gojek application users. Empathy related to customer satisfaction is closely related to sincere and close attention to each customer. Empathy will help companies to know the specific needs and desires of customers. In this study, the empathy indicator did not significantly affect the satisfaction of Gojek application users. (Marati, 2016).

CONCLUSION

This study shows that the tangibles indicator has a significant positive effect on Gojek application user satisfaction, while the reliability, responsiveness, assurance, and empathy indicators do not have a significant effect. Tangibles, which include the company's ability to provide concrete services such as discounts and cashback, directly affect users' perceptions of service quality. Although other indicators are not significant, Gojek needs to continue to improve the best service for users. The implication of this research is the importance of Gojek in maintaining an effective strategy to provide concrete services to users, such as discounts and cashback. In addition, companies need to continue to improve services that are responsive and reliable, provide guarantees, and pay attention to empathy for user needs. Suggestions that can be given based on this research are the need for further research that expands the indicators considered to evaluate other factors that affect user satisfaction with the Gojek application. The research can also consider other comparative analysis methods to understand the factors that affect the company's service quality in more detail. In addition, collaboration between IBM AMOS software and other statistical analysis software can increase the validity of statistical data processing in future studies. Thus, Gojek can better understand user needs and holistically improve the quality of its application services.

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