

THE DETERMINANT ANALYSIS OF SERVICE QUALITY AND GOJEK'S MATCHING ALGORITHM ON THE SATISFACTION OF MUSLIMAH CUSTOMERS IN SURABAYA

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ABSTRACT

Introduction: The purpose of this study is to determine the partial influence of service quality and matching algorithm on the satisfaction of female muslim (muslimah) student customers using Gocar services in Surabaya. The research aims to investigate the effect of these two variables. The selection of a ride-hailing service catering to Muslimah-friendly preferences in Surabaya is driven by the increasing demand for such specialized services that are satisfy and safe for Muslimah.

Method: Data for this research were collected through questionnaires distributed to 100 muslimah students using Gocar services in Surabaya as the research sample. Surabaya was chosen due to the high demand of this service compared to most other cities in Indonesia. The mixed-method approach involved quantitative analyses such as validity and reliability tests, classic assumption tests, t-tests, F-tests, and the coefficient of determination. Additionally, qualitative data from the interviews were analyzed to provide a comprehensive understanding of customer experiences.

Results: The result is both service quality and matching algorithm have a positive impact on customer satisfaction, both individually and simultaneously. However, some criticisms were identified, such as excessive interaction from drivers that made customers uncomfortable and long waiting times for pick-up due to distant driver locations.

Conclusion and suggestion: Achieving customer satisfaction is crucial for any company, including Gojek, as the provider of Gocar services. To address customer satisfaction issues, Gojek should provide training on

appropriate customer interactions for drivers and improve the matching algorithm to ensure closer driver-customer proximity without relying solely on Gocar instant points.

INTRODUCTION

Focusing on one of the most prominent digital transactions in Indonesian society, this research centers on online ride-hailing services. These services significantly contribute to Indonesia's economy, with the total value of online motorcycle taxi transactions projected to reach \$6.9 billion, led by Gojek (Burhan, 2021). Gojek's sustainability is crucial due to its impact on stakeholders and maintaining healthy competition, holding a 59% market share compared to Grab's 41% as of February 2021 (Karnadi, 2022). In the current competitive landscape, companies must prioritize survival by ensuring a strong foundation before expanding (Kahwaji & Mubayed, 2016). Maximizing customer satisfaction is key to achieving sustainability and growth (Agiesta & Sajidin, 2021). Thus, Gojek's primary challenge is surviving fierce market competition, particularly with its Gocar service.

The use of the internet in Indonesia nowadays has become massive and deeply integrated into the daily lives of its people. The rapid growth of internet forced Indonesian society to embrace digitalization much faster than expected (Afiq & Yudha, 2023). The increasing internet usage is evident in the data, indicating that the number of internet users in Indonesia has been consistently growing from around 130 million in 2018 to 204.7 million in 2022, accounting for 73.7% of the total population (Pahlevi, 2022). According to research conducted by the Indonesia Bureau of Statistic in 2022, females constitute 49% of Indonesia's population (BPS, 2023). Within this context, the Muslim population accounts for 87% of the total population (Kemendagri, 2023). Thus, it can be concluded that female muslim population is one of the largest groups of customers in ride hailing service market in Indonesia (Yudha & Haryono, 2024). This demographic data indicates that Muslim women (Muslimah) represent a significant portion of Gojek's user base.

Customer satisfaction is influenced by several factors, including product quality, service quality, price, customer experience, and customer testimonials. Among these factors, service quality is often a dominant factor in building customer satisfaction for service-based companies (Muriza, 2021). The service quality itself can be evaluated based on five indicators reliability, responsiveness, assurance, empathy, and tangibles (Chuenyindee et al., 2022) (Ivantri et al., 2024). Thus, to achieve customer satisfaction and improve the service quality, the company needs to evaluate these indicators and make necessary improvements based on customer feedback (Izogo & Ogba, 2015). Overall

customer satisfaction is often high, but concerns are sometimes raised by customers, especially regarding service quality aspects such as the reliability and safety of the service (Muguro et al., 2022). In other research conducted by (Uzir et al., 2021), founded that service quality is affecting the customer satisfaction both with perceived value and trust as the mediator variable. Therefore, it becomes clear that understanding and improving the service quality is important for both the company and the customers.

In addition to evaluating existing aspects, Gojek can also enhance customer satisfaction through improvements and innovations in its products or services, focusing on the customer's experience while using the platform (Ries, 2011). In this regard, one critical aspect is the matching algorithm used in ride-hailing services. The matching algorithm is a system that matches customers with drivers, and it plays a vital role as the first point of contact for customers receiving the online motorcycle taxi service (Schreieck et al., 2016). One potential innovation for the matching algorithm is to implement filters or customizable options for customers. Based on previous research, filters such as maximum distance between customers and drivers, driver gender, driver age, permission to bring pets, and permission to smoke in the vehicle can contribute to higher customer satisfaction for ride-hailing services (Schreieck et al., 2016). By evaluating and improving the matching algorithm based on customer experiences, Gojek can enhance customer satisfaction, especially for its Gocar service.

There hasn't been any prior research that explicitly targets Muslimah as the main subject in the context of ride-hailing services, despite the insightful findings from earlier studies. This study's originality is emphasized by the gap in the literature. This study closes a key gap by concentrating on Muslimah clients and offers special insights that will assist Gojek and related businesses in better serving this considerable user base. Gojek gains from this research, but Muslimah consumers also profit because their feedback will be considered for future service enhancements. This strategy provides that the company and this muslimah segment may benefit from the results. Besides using matching algorithm to measure customer satisfaction of ride-hailing service is quite new. That means this research also can give a broader horizon on research of customer satisfaction area.

LITERATURE REVIEW

Service Quality

Generally, the definition of service refers to any intangible actions or activities offered by individuals or companies to other parties (Kotler & Keller, 2012). Service quality, on the other hand, refers to the level of service provided, where each company has different service qualities, ranging from excellent to poor. Service quality is a crucial element since previous studies have shown that it can influence customer satisfaction, which ultimately affects a company's loyalty and profitability (Agiesta & Sajidin, 2021).

Therefore, service quality is a critical element that needs to be carefully managed by every company that wants to compete in the market. The goal of service quality is to meet customer needs and desires, providing the best transaction experience for consumers (A. S. Maulana, 2016).

These service points are essential elements that contribute to building service quality in a company. Therefore, it is crucial for companies to understand what and how to provide the best service to ensure that customers, in turn, provide good service quality to the company (Muriza et al., 2021). Some service quality points that influence service quality include:

1. Accuracy of service by customer service representatives.
2. Safety and comfort during transactions.
3. Interaction between the company and customers.
4. Comfortable transaction locations.

According to previous research on service quality in ride-hailing companies, the proposed service quality indicators are:

1. On-time pickup.
2. Navigational skills of drivers.
3. Safety and comfort during the ride, including driving safety and driver interactions with customers.
4. Safety and comfort based on the condition of the vehicle being used.

Previous studies have shown that service quality has a significant impact on customer loyalty in online motorcycle taxi services. For example, research by Ridwan & Noviyanti (2022), Liana & Utami (2023), Hutabarat & Cindy (2022), and Adnyana & Suprapti (2018) states that good service quality enhances customer loyalty. This is because high service quality increases customer satisfaction, which in turn strengthens their loyalty (Adnyana & Suprapti, 2018). Additionally, quality service also boosts customer trust in the safety of the service process. Positive experiences gained by customers from good service quality make them more likely to recommend the service to others (Ridwan & Noviyanti, 2022). According to (Hutabarat & Cindy, 2022), good service quality provides a higher perceived value to customers, making them feel they are receiving benefits that match or even exceed what they pay for, thereby encouraging their loyalty to continue using services from Gojek. Thus, this research hypothesizes:

H1: There is a partial influence of service quality on the satisfaction of Muslimah Gocar customers in Surabaya.

Matching Algorithm

An algorithm can be defined as a logical and systematic sequence of steps used to solve a problem (Ardiansyah et al., 2019). Algorithms are not limited to a specific sequence, they can vary based on the problem to be solved, as long as the steps remain logical and systematic. In computer programming, an algorithm consists of computational commands used to produce an output that can solve a particular problem or meet specific needs (G. G. Maulana, 2017). Matching algorithm in the context of on-demand companies, such as ride-hailing services like ojek online, refers to a programming logic that matches service providers or partners with their customers based on one or more indicators determined by the service provider or the customers (NRMP, 2020).

Algorithm matching is widely used in customer-oriented on-demand applications, where customer preferences are used as indicators to match them with suitable services (Landry, 2022). The algorithm matching is tentative because the matching is randomly determined, based on the compatibility of entities with specific characteristics or indicators (National Matching Service Inc., 2022). Matching algorithm has a fundamental function, which is to connect two entities, such as a driver as a partner of a ride-hailing company with the customers, the passengers (Verma, 2019). Each ride-hailing company may use different programming logics for its matching algorithm, making it an essential element in building their product (Ahmad, 2021). Therefore, companies need to pay special attention to the quality of their algorithm matching to positively impact customer satisfaction with the service. The effectiveness of the matching algorithm influences the customer's experience by ensuring that their specific needs and preferences are met promptly and accurately. In addition to evaluating existing aspects, ride hailing company can also enhance customer satisfaction through improvements and innovations in its products or services, focusing on the customer's experience while using the platform (Ries, 2011). A well-designed matching algorithm can minimize wait times and provide efficient service. As part of product improvement, enhancing the matching algorithm can significantly impact customer experience and satisfaction. Thus, this research hypothesizes:

H2: There is a partial influence of algorithm matching on the satisfaction of Muslimah Gocar customers in Surabaya.

Customer Satisfaction

Customer satisfaction can be defined as the average evaluation of customers based on their overall purchasing and consumption experiences with goods or services over time (Song et al., 2022). Customer satisfaction evaluations are influenced by factors such as product quality, product features, functions, service quality, pricing, customer

experience, and testimonials from others (Christino, 2019). Customer satisfaction is a critical factor that can influence customer retention and repeat purchases. It serves as a barometer to predict future customer behavior (Hill et al., 2007). Satisfied customers not only contribute to customer retention but also act as brand advocates, attracting new customers to the company (Hague & Hague, 2021). Various methods can be used to measure customer satisfaction, including complaint and suggestion systems, ghost shopping, lost customer analysis, and customer satisfaction surveys (Kotler et al., 2007). Some indicators used to measure customer satisfaction include:

1. Suitability of customer expectations with the service provided.
2. Intention to reuse the service.
3. Willingness to recommend the service to others.

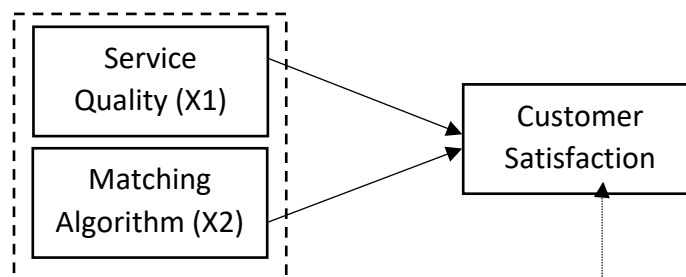
Hypothesis

In this study, there are three hypotheses:

1. Service Quality Dimension
H1: There is a partial influence of service quality on the satisfaction of Muslimah Gocar customers in Surabaya.
2. Algorithm Matching Dimension
H2: There is a partial influence of algorithm matching on the satisfaction of Muslimah Gocar customers in Surabaya.
3. Service Quality and Algorithm Matching Dimension on Muslimah Online Motorcycle Taxi Customer Satisfaction
H3: There is a simultaneous influence of service quality and algorithm matching on the satisfaction of Muslimah Gocar customers in Surabaya.

Research Framework

Based on the theoretical explanation provided earlier, this research aims to investigate the effects of service quality and algorithm matching on the customer satisfaction of Muslimah customers using Gocar in Surabaya. The model flow of this research is as follows:



Source: Author's Analysis

Figure 1. Research Model

RESEARCH METHODS

Research Design

This study employs a mixed-methods approach, combining quantitative and qualitative techniques to gain a comprehensive understanding of the influence of service quality on the satisfaction of Muslimah Gocar customers in Surabaya. The quantitative component involves a survey and statistical analysis using multiple linear regression. Data for the quantitative analysis was collected through structured questionnaires with Likert scale distributed to Muslimah Gocar customers.

The qualitative component includes thematic interviews to gain deeper insights into the customers' experiences and perceptions. These interviews were conducted with a selected group of Muslimah Gocar customers during the same period, from August to November 2022, in Surabaya. The qualitative data was analyzed using thematic analysis to identify recurring themes and patterns related to service quality and customer satisfaction with simple random sampling. By integrating both quantitative and qualitative methods, this study provides a more nuanced understanding of the factors influencing customer satisfaction in the context of Muslimah Gocar services.

Due to the time and budget constraints of this research, the researcher decided to choose a smaller yet still representative area for the study. Surabaya was selected for several reasons. First, Surabaya is the second-largest city in Indonesia in terms of Gross Regional Domestic Product (PDRB) ([Badan Pusat Statistik Indonesia, 2022](#)). Second, Surabaya has the second-largest population among cities in Indonesia ([BPS, 2023](#)). The research took place over a period of four months, from August to November 2022. This period was chosen because there was a significant rise in sexual harassment cases in Surabaya during that time.

Research Samples

The population of interest in this study was female college students in Surabaya, aged between 18 and 25 years. The population size was calculated to be 65,211 ([Dinas Kesehatan Surabaya, 2019](#)). Then for taking the sample population of the quantitative method researcher used Slovin method, calculation (1) to calculate the number of samplings ([Agiesta & Sajidin, 2021](#)).

$$n = \frac{N}{(1 + (N \times e^2))} \dots \dots \dots (1)$$

Where n is the sample size, N is population size, and e is the level of allowable error. This research found that the targeted population size is 65.211. And for the level of allowable error is set to 10%. Therefore, based on the formula, the minimum sample size is 100.

Subsequently, to determine the qualitative data sample to be utilized for conducting interviews. We will employ the methodology proposed by Sugiyono, which involves obtaining several representative subjects by multiplying the total count of variables by a factor ranging from 5 to 10 (Sugiyono, 2018). As the factors or variables tested in this research are 2 variables therefore the minimum sample size of interview is 10 to 20 sample.

RESULT AND ANALYSIS

Respondent Demographic Information

Table 1
Age Distribution of Respondent

Characteristics	Category	Frequency	Percentage
Age	18 years	11	11%
	19 years	23	23%
	20 years	29	29%
	21 years	14	14%
	22 years	16	16%
	>22 years	7	7%
University	UIN Sunan Ampel Surabaya	30	30%
	Universitas Airlangga	20	20%
	Institut Teknologi Surabaya	14	14%
	Universitas Surabaya	13	13%
	UPN Veteran Jawa Timur	11	11%
	PPNS	5	5%
	PENS	4	4%
	Poltekkes	3	3%
Frequency of using Gocar service	Once a week	40	40%
	2-3 times a week	25	25%
	4-5 times a week	17	17%
	6-7 times a week	8	8%
	More than 7 times a week	10	10%

Source: Processed Data

Table 1 describes the descriptive statistic of 100 student muslimah respondents in Surabaya, making the age range of the respondents between 18 to 22 years old. The research questionnaires were distributed across various campuses in Surabaya, including UIN Sunan Ampel Surabaya, Universitas Airlangga, Institut Teknologi Surabaya, and other universities in the city and shows variety frequency for using Gocar, whereas up to 40% of respondents used it once a week.

Quantitative and Qualitative Result

Validity Test

Validity can be defined as a measure of how well an instrument can accurately measure what is intended to be measured in a research study (Syofian, 2016). Meanwhile, validity testing is a process conducted to determine the level of validity or accuracy of research data. Validity testing is conducted by comparing the r-value for each question item with the product-moment at a significant level of 5%. It can be considered valid if the r-value is greater than the r-table. Otherwise, the tested statement item is considered invalid and is discarded (Sugiyono, 2016). The results of the validity tests can be seen in the Table 2, 3, and 4 for each variable:

Table 2
Validity Test on Service Quality Questionnaire (X1)

Statement	r-value	r-table	Result
P1	0.728	0.195	Valid
P2	0.643	0.195	Valid
P3	0.730	0.195	Valid
P4	0.754	0.195	Valid
P5	0.709	0.195	Valid
P6	0.605	0.195	Valid
P7	0.783	0.195	Valid
P8	0.654	0.195	Valid
P9	0.737	0.195	Valid
P10	0.684	0.195	Valid
P11	0.615	0.195	Valid
P12	0.698	0.195	Valid
P13	0.682	0.195	Valid
P14	0.744	0.195	Valid
P15	0.712	0.195	Valid

Source: Processed (2023)

Table 3
Validity Test on Matching Algorithm Questionnaire (X2)

Statement	r-value	r-table	Result
Q1	0.577	0.195	Valid
Q2	0.771	0.195	Valid
Q3	0.764	0.195	Valid
Q4	0.752	0.195	Valid
Q5	0.789	0.195	Valid
Q6	0.784	0.195	Valid

Source: Processed (2023)

Table 4
Validity Test on Customer Satisfaction Questionnaire (Y)

Statement	r-value	r-table	Result
Y1	0.860	0.195	Valid
Y2	0.940	0.195	Valid
Y3	0.865	0.195	Valid

Source: Processed (2023)

From all the results of the validity tests conducted, it is found that all variables have valid outcomes. Therefore, this means that all variables are valid and can be used for the next stages of the research.

Reliability Test

The reliability test is conducted by examining the Cronbach's Alpha (CA) (Sugiyono, 2017). The assessment criteria used in the reliability test is that if the CA value is greater than 0.6 ($CA > 0.6$), then the questionnaire can be considered reliable. On the other hand, if the CA value is less than 0.6 ($CA < 0.6$), then the questionnaire is considered unreliable (Syofian, 2016). The results of data processing to test the reliability appear in Table 5.

Table 5
Reliability Test Result

Variable	Cronbach's Alpha	Result
Service Quality	0.924	Reliable
Matching Algorithm	0.837	Reliable
Customer Satisfaction	0.861	Reliable

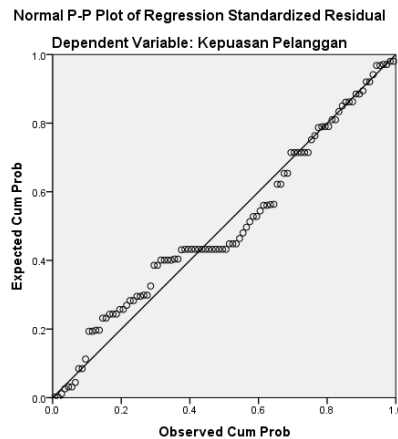
Source: Processed (2023)

Based on the reliability test results, all variables in this study have Cronbach's Alpha values above 0.6, indicating that the questionnaires used for each variable are reliable and consistent in measuring the constructs.

Classical Assumption Test

Normalization Test

The normality test is conducted to determine whether the data used or tested follows a normal distribution or not. There are two methods that can be used to assess the normality of data: through visual graph analysis, skewness, and kurtosis tests, or by using the statistical test One-Sample Kolmogorov-Smirnov (Ghozali, 2011). In the normality test, the Normal P-P Plot of Regression Standardized Residual graph is used.



Source: Processed Data

Figure 2. Normal P-P Plot of Regression Standardized Residual

In the graph above, it can be observed that the data points are scattered around the diagonal line, and their distribution follows the direction of the diagonal line. Therefore, the regression model satisfies the assumption of normality.

Multicollinearity Test

A good regression model should not have correlations among its independent variables or multicollinearity. Multicollinearity can be measured from the values of Tolerance (TOL) and Variance Inflation Factor (VIF). It is said that there is no multicollinearity if the Tolerance value is ≥ 0.1 or the VIF value is ≤ 10 . On the other hand, if the values are otherwise, then multicollinearity exists (Ghozali, 2011).

Table 6
Multicollinearity Test Result

Variable	Tolerance	VIF
Service Quality	0.454	2.203
Matching Algorithm	0.454	2.203

Source: Processed (2023)

In Table 6, the results of the multicollinearity test show that both Tolerance (TOL) and Variance Inflation Factor (VIF) values meet the criteria $TOL \geq 0.1$ or $VIF \leq 10$. Thus, it can be concluded that there is no multicollinearity issue in the regression model.

Heteroskedasticity Test

Heteroskedasticity is conducted to test for differences in residual variances between different observation periods (Kurniawan & Yuniarto, 2016). One of the tests used to examine heteroskedasticity is the Spearman's Rho test with a significance > 0.05 to avoid heteroskedasticity issues (Ghozali, 2007)

Table 7
Spearman's Rho Test Result

Variable	Sig. (2-tailed)
Service Quality	0.840
Matching Algorithm	0.735

Source: Processed (2023)

Based on the results presented in Table 7, the significance values (Sig. 2-tailed) for each variable, namely X1 and X2, are 0.840 and 0.735, respectively. The significance values above 0.05 suggest that there is no statistically significant evidence of heteroskedasticity in the utilized regression model.

Autocorrelation Test

The results of the autocorrelation test are obtained from the Durbin-Watson test (Table 8), where it is stated that the regression model does not experience autocorrelation if the Durbin-Watson (d) value falls between dU and 4-dU ($dU < d < 4-dU$) (Ghozali, 2011).

Table 8
Autocorrelation Test Result

Durbin-Watson test	dU	Durbin-Watson	4-dU
	1.736	2.181	2.264

Source: Processed (2023)

The Durbin-Watson test yielded a value of 2.181. With k representing the number of variables ($k=3$) and N as the sample size ($N=100$), we derived the values of dU (1.736) and $4-dU$ (2.264). Subsequently, we observed that the test statistic, d (2.181), falls within the range of dU (1.736) and $4-dU$ (2.264). This indicates that the regression model is not affected by autocorrelation.

Multiple Linear Regression

Multiple linear regression, as previously explained, is used to examine the influence of two or more independent variables on a dependent variable (Kurniawan & Yuniarto, 2016). In this study, which explained in Table 9, the independent variables are service quality (X_1) and matching algorithm (X_2), while the dependent variable is customer satisfaction (Y). The analysis aims to determine the relationship and impact of service quality and matching algorithm on customer satisfaction.

Table 9
Multiple Linear Regression Result

Variable	Unstandardized Coefficients (B)
(Constant)	2.677
Service Quality	0.090
Matching Algorithm	0.136

Source: Processed (2023)

The multiple linear regression equation is as follows:

$$y = 2,677 + 0,090X_1 + 0,136X_2 + e.....(3)$$

Interpretation:

1. Constant term (a): 2.677, representing the baseline customer satisfaction when X_1 and X_2 have no influence.
2. Coefficient of X_1 : 0.090, indicating that each unit increase in service quality (X_1) predicts a 0.090 unit increase in customer satisfaction.
3. Coefficient of X_2 : 0.136, suggesting that each unit increase in the matching algorithm (X_2) predicts a 0.136 unit increase in customer satisfaction.

These interpretations provide valuable insights into the impact of service quality and the matching algorithm on customer satisfaction in the regression model.

Hypothesis Test

The t-test is conducted to examine the influence of each independent variable on the dependent variable. If the calculated t-value (t_{calc}) is greater than the tabulated t-value (t_{tab}), then the independent variable (X) significantly affects the dependent

variable (Y) (Sugiyono, 2018). The t_{tab} value is obtained from t-table = (0.05/2; 100-2-1), resulting in $t_{tab} = 1.988$.

Table 10
Hypothesis Test Result

No	t-value (t _{calc})	Tabulated t-value (t _{tab})	Result
1.	3.758	1.998	H1 accepted
2	2.606	1.998	H2 accepted

Source: Processed (2023)

Furthermore Table 10 discover, the t_{calc} values for X1 and X2 are found to be 3.758 and 2.606, respectively. As both t_{calc} values (3.758 for X1 and 2.606 for X2) are greater than t_{tab} (1.988), the hypotheses H1 and H2 are accepted. This indicates that there is a significant partial effect of service quality (X1) on customer satisfaction (Y) for Gocar Muslimah in Surabaya.

Additionally, the matching algorithm (X2) also shows a positive partial influence on customer satisfaction (Y). In conclusion, both service quality (X1) and the matching algorithm (X2) have significant partial effects on customer satisfaction (Y) for Gocar Muslimah in Surabaya.

Table 11
Simultaneous Effect Test Result

Model	Mean Square	F
Regression	49.229	38.981

Source: Processed (2023)

In the simultaneous test (Table 11), the desired outcome is to determine the combined influence of all independent variables (X) on the dependent variable (Y). It is stated that all independent variables (X) have a simultaneous effect on the dependent variable (Y) if the calculated F-value (F_{calc}) is greater than the tabulated F-value (F_{tab}). In this study, the tabulated F-value (F_{tab}) is obtained as $F_{tab} = (2; 98)$, which is equal to 3.09. Furthermore, the calculated F-value (F_{calc}) is found to be 38.981. Since the F_{calc} value (38.981) is greater than the F_{tab} value (3.09), it can be interpreted that H3 is accepted, indicating that there is a simultaneous influence between service quality (X1) and the matching algorithm (X2) on customer satisfaction for Gocar Muslimah in Surabaya.

Interview Result

After conducting the questionnaire, qualitative analysis in this study was further carried out through interviews with 20 respondents from the previous questionnaire

participants. The 20 respondents who were interviewed were selected based on the variation in answers received through the questionnaires to ensure balanced and comprehensive data collection. The purpose of these interviews was to gain deeper insights into the respondents' perspectives regarding the variables under investigation (Sarmanu, 2017). The results of the interviews are as follows:

1. Service Quality (X1)
 - a. Reliability: Customers had mixed impressions about Gocar service, with some considering it satisfactory in terms of vehicle condition and driver's driving skills.
 - b. Responsiveness: Quick responses from drivers were appreciated, especially for coordinating pick-up locations.
 - c. Assurance: Customers generally felt safe using Gocar, although some expressed discomfort with drivers asking personal questions excessively.
 - d. Empathy: Drivers reminding passengers to wear seat belts was noted, but restrictions on facilities like air conditioning were criticized by some customers.
 - e. Tangible: Customers received rides with clean and standard interiors.
2. Matching Algorithm (X2)
 - a. System Availability: Availability varied based on location and time, leading to longer wait times in certain areas.
 - b. System Ability: Drivers were generally responsive, making it convenient for customers to book rides.
 - c. Matching System: Some customers expressed frustration with getting drivers located far away and suggested the option to select nearby drivers.
3. Customer Satisfaction (Y)
 - a. Expectation Suitability: Customers prioritized reaching their destination safely. Some suggested options to select drivers based on gender or proximity for increased satisfaction.
 - b. Intention to Reuse: Respondents were willing to use Gocar again, especially if additional features like proximity filters were introduced.
 - c. Recommendation: Most customers were willing to recommend Gocar to others based on their positive experiences.

QUANTITATIVE ANALYSIS

The Effect of Service Quality on Customer Satisfaction

First, in the partial t-test, the calculated t-value is 3.758 with a significance level of 0.000, which is smaller than 0.05. Considering the t-table value of 1.988, this means that t-value (3.758) > t-table value (1.988), indicating a positive influence of service quality (X1) on customer satisfaction (Y).

Previous research shows that service quality has a significant influence on customer loyalty for online motorcycle taxi services. For example, research by [Ridwan & Noviyanti \(2022\)](#), [Liana & Utami \(2023\)](#) and [Adnyana & Suprpti \(2018\)](#) states that service quality influences customer loyalty. Furthermore, detailed interview results showed positive responses from Gocar customers regarding each service quality indicator ([Maftuchah et al., 2019](#)). The reliability indicator received satisfactory feedback, particularly regarding the drivers' driving skills, adherence to rules, and vehicle conditions. The responsiveness indicator also received positive feedback, with customers expressing satisfaction in terms of driver availability and the ability to coordinate pick-up locations effectively. Regarding assurance, empathy, and tangible indicators, customers were generally satisfied.

However, there were some criticisms related to certain driver behaviors, such as excessive and intrusive interactions, especially concerning female Muslim customers ([Liana & Utami, 2023](#)). Based on the statistical test and interview findings, it can be concluded that overall, Gocar's service quality has been satisfactory for the Muslim customers who participated in the study. Nonetheless, there are some crucial areas for improvement, such as addressing excessive interactions and facility limitations.

In conclusion, the direct interaction between the company representatives and customers plays a significant role in determining service quality, which aligns with similar research in the service industry ([Wicaksono & Kusuma, 2021](#)).

Overall, respondents expressed that the service quality received from Gocar is quite good, supported by statistical tests and interviews. However, there are critical issues that Gojek, as the service provider, needs to address, such as excessive interactions causing discomfort and facility limitations despite hot weather conditions. Nevertheless, Gocar's service quality is generally rated positively, which aligns with similar research on online motorcycle taxi services ([Susanti et al., 2021](#)).

The Effect of Matching Algorithm on Customer Satisfaction

Based on the partial t-test, the calculated t-value for the matching algorithm variable (X2) is 2.606 with a significance level of 0.011, which is smaller than 0.05. Moreover, considering the t-table value of 1.988, it can be inferred that t-value (2.606) > t-table value (1.988), indicating a positive influence of the matching algorithm (X2) on customer satisfaction (Y). Previous research by [Nguyen-Phuoc et al., \(2020\)](#) revealed that the compatibility of algorithm suitability significantly influences customer satisfaction. Therefore, companies can enhance their applications to improve service quality.

Furthermore, based on the interview results with respondents, there were diverse findings. Firstly, concerning the system availability indicator, customers reported that the

system for placing orders was always available. However, the availability of drivers willing to accept orders became a separate discussion, addressed in the next indicator.

Secondly, regarding the system's ability, customers acknowledged that the system effectively matched them with drivers, allowing them to quickly find a driver (Sudirman et al., 2020). Nonetheless, certain conditions, such as locations deemed less favorable for Gocar drivers, caused some customers to experience longer waiting times. Overall, though, the system's ability was considered good and satisfactory.

Thirdly, for the matching system indicator, there were interesting responses from customers. Many of the respondents mentioned less pleasant experiences, where they often received drivers located far from them, resulting in extended waiting times. Despite this issue, customers somewhat reluctantly accepted it due to limited options and their immediate transportation needs. However, some respondents expressed that if the problem of long waiting times due to distant drivers could be addressed, it would significantly enhance their interest and satisfaction in using Gocar's service.

During the research period, Gojek introduced an innovation called Gocar Instant Pickup Point, which was aimed at solving the issue of long distances between drivers and customers. This innovation allowed customers to head to an instant pickup point and immediately get a driver, minimizing waiting times. However, it was noted that this solution was limited to specific locations like train stations and malls, and not widely available in residential areas, student dorms, or campuses where many customers, including the respondents, needed the service (Hutabarat & Cindy, 2022). Therefore, it is essential for Gojek to expand this service to more locations to maximize customer satisfaction.

In conclusion, based on the statistical analysis, the matching algorithm variable has a positive impact on customer satisfaction. The interview findings are in line with this, showing that overall, Muslimah customers, who were the respondents of the study, were reasonably satisfied with the matching algorithm. However, there are areas that need improvement, particularly regarding the matching system, where customers still experience long waiting times due to distant drivers, which can be addressed to further enhance customer satisfaction.

The Effect of Service Quality and Matching Algorithm on Customer Satisfaction

In the simultaneous test, the obtained F-value is 38.891, and the F-table value (2; 98) is 3.09. As F-value (38.891) > F-table (3.09), it can be concluded that service quality (X1) and matching algorithm (X2) have a simultaneous influence on customer satisfaction (Y). The coefficient of determination (R²) test in this study resulted in an R² value of 0.446 or 44.6%. This means that both service quality (X1) and matching algorithm (X2) have a positive simultaneous impact on customer satisfaction (Y), accounting for 44.6% of the

influence, while the remaining 55.4% is influenced by other variables not examined in this study.

Furthermore, in this research case, customer satisfaction can be achieved through perceived good service quality and matching algorithm, as experienced by the Muslimah customers who participated in the study. The main reason for the significant impact of these two variables on customer satisfaction is that the fundamental expectations of the respondents regarding Gocar's service have been fulfilled, which is the need for a vehicle to travel to desired locations.

The fulfillment of these basic expectations leads respondents to feel satisfied with the Gocar service they use. These findings align with the fundamental theory of customer satisfaction, which states that satisfaction is achieved when customers' expectations about the service are met (Putra & Sulistyawati, 2017).

Qualitative Analysis

The conclusion from the qualitative interviews conducted with 20 respondents provides a comprehensive understanding of the various perceptions regarding the service quality of Gocar, the matching algorithm, and overall customer satisfaction. These insights are critical in identifying both the strengths and areas for improvement in Gocar's service offerings.

In terms of service quality (X1), the responses revealed a spectrum of opinions on different dimensions. For reliability, customers had mixed impressions. While some found the condition of the vehicles and the driving skills of the drivers satisfactory, others had less favorable experiences (Liana & Utami, 2023). Responsiveness was generally appreciated, with customers valuing the prompt responses from drivers, particularly in coordinating pick-up locations. This aspect highlights the importance of timely communication in enhancing customer experience. However, the assurance aspect brought up some concerns. While customers generally felt safe using Gocar services, there were instances where drivers' overly personal questions caused discomfort (Ridwan & Noviyanti, 2022). This indicates a need for training drivers in maintaining professionalism and respecting passenger privacy. Empathy was noted positively when drivers reminded passengers to wear seat belts, demonstrating care for passenger safety. However, some customers criticized restrictions on facilities like air conditioning, suggesting a potential area for service enhancement (Hutabarat & Cindy, 2022). Tangible aspects, such as the cleanliness and standard of vehicle interiors, received positive feedback, indicating that maintaining vehicle hygiene is a key factor in customer satisfaction.

Regarding the matching algorithm (X2), there were notable issues related to system availability and functionality (Nguyen-Phuoc et al., 2020). The availability of the

system varied significantly based on location and time, leading to longer wait times in certain areas. This variability suggests a need for improving the distribution and availability of drivers across different regions and times to ensure more consistent service. Despite this, the system's ability to match drivers with customers was generally viewed positively, as drivers were responsive and booking rides was convenient for most customers. However, the matching system itself faced criticism, particularly regarding the distance of assigned drivers. Customers expressed frustration with being matched with drivers who were located far away, which increased wait times and reduced convenience (Adnyana & Suprapti, 2018). This feedback underscores the importance of optimizing the matching algorithm to prioritize closer drivers and potentially introducing a feature that allows customers to select nearby drivers.

In terms of customer satisfaction (Y), several key themes emerged. The suitability of customer expectations was largely met, with safety being the primary concern for most customers. Ensuring safe and reliable transportation remains a crucial aspect of customer satisfaction. Some customers suggested additional options, such as selecting drivers based on gender or proximity, to further enhance their comfort and satisfaction (Sudirman et al., 2020). The intention to reuse Gocar services was high among respondents, especially if new features like proximity filters were introduced, indicating a positive outlook towards the service with room for enhancements. Moreover, most customers were willing to recommend Gocar to others, reflecting their overall positive experiences and satisfaction with the service.

In summary, these interview results provide valuable insights into the factors influencing customer satisfaction and highlight specific areas for improvement in Gocar's services. By addressing the concerns raised, particularly regarding driver professionalism, system availability, and matching efficiency, Gocar can enhance its service quality and better meet customer expectations. These findings suggest a clear path forward for Gocar to not only maintain but also improve its customer satisfaction and loyalty.

CONCLUSION

There are three main points identified in this research. The first point concerns the impact of the variables studied, namely service quality and matching algorithm, on the Gocar service by Gojek. The quantitative tests conducted indicate that both variables influence customer satisfaction, both partially and simultaneously. This suggests that these variables are important and need attention from Gojek for improvement and enhancement to increase customer satisfaction with the Gocar service. The second point is that the variables tested simultaneously have a significant impact on customer satisfaction. The F-test results show that the combined influence of these two variables

accounts for 44.6% of customer satisfaction. This indicates that these variables have a considerable impact on customer satisfaction.

The third point identified in this research is the feedback from the interviews. Overall, the respondents, all Muslimah students, feel that the Gocar service meets their expectations and are satisfied with its quality and matching algorithm. However, they raised two main criticisms. First, they often feel uncomfortable with male drivers who ask overly personal questions. Second, the matching algorithm frequently assigns drivers located far from the pick-up point, leading to longer wait times than expected.

Based on the feedback received, the researcher proposes several suggestions to address the criticisms. First, to tackle the issue of uncomfortable interactions with drivers, Gojek should provide training and establish SOPs for drivers to limit their interactions to a professional level, ensuring customers do not feel disturbed. Second, to address the concern of distant driver locations. Although Gojek already offers instant pick-up points, this service is currently limited to specific locations like malls and other public places. Therefore, the best suggestion for addressing this criticism is to improve the matching algorithm. This improvement would prioritize selecting drivers who are closest to the passenger's pick-up point.

AUTHOR CONTRIBUTION

- Abdullah Muhammad Al-Kamal : Research design and conceptualization, data collection and data processing, writing and revise the article manuscript
- Chetrine Alya Rinaima : Data collection and data processing, writing and revise the manuscript
- Ana Toni Roby Candra Yudha : Research design and conceptualization, methodology and research framework, revise the manuscript
- Andhy Permadi : Research design and conceptualization, methodology and research framework.

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