

The Effect of Product Quality, Service Quality on Customer Loyalty Mediated Satisfaction for Grabfood Customers in Jabodetabek

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Abstract

Customer loyalty is a crucial factor in an organization's growth and financial performance. This study aims to investigate how Product Quality influences customer loyalty, service quality, and customer happiness among Grab Food's customers while making purchases. The population for this study consists of all online Grab food consumers in Indonesia, with a sample size of 173 online Grab food clients. The research used Structural Equation Models (SEM) for data analysis. Research shows that both product quality and service quality have a significant influence on Grab Food's customer loyalty in the Jabodetabek area. This shows that aspects such as food taste, ease of ordering, and speed of delivery contribute significantly to customers' decisions to continue using Grab Food services repeatedly. Mediating Role of Customer Satisfaction: The research results also highlight the important role of customer satisfaction as a mediator between product quality/service and customer loyalty. Important managerial implications for Grab Food. highlighting the importance of Grab Food's focus on improving their Product Quality and services. Companies can carry out a thorough evaluation of the production process and service provision to ensure that the products and services provided meet customer expectations.

Keywords: *Service Quality, Product Quality, Customer Satisfaction, Customer Loyalty.*

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A. INTRODUCTION

The food service sector online in Indonesia is rapidly growing due to technological advancements and evolving customer tastes. Consumers want vendors to surpass their expectations and provide many shopping channels to cater to their demands, please them, and retain their loyalty (Slack et al., 2020). In today's competitive environment, firms seek not just customer engagement but also need consumers to remain relevant and prosper (Pooya et al., 2020). In a highly competitive business climate, corporations need to put a lot of effort into maintaining and developing their loyal customer base (Giovanis and Athanasopoulou, 2018). Retaining loyal consumers for the long term is more profitable than trying to attract new customers (Paulose and Shakeel, 2021). Customer loyalty also results in a strong and free brand advocacy effect, with loyal customers becoming reliable advocates on social media and informally inviting friends, family, and other potential customers

to use products or services that (Paulose and Shakeel, 2021). Therefore, customer loyalty is considered a key factor of success and profitability for organizations. The concept of customer loyalty is becoming increasingly important today as it relates not only to repurchase habits but also to a positive attitude towards service providers (Saueressig et al., 2021). Therefore, it is important to conduct comprehensive research on the concept of customer loyalty in the context of service Grab Food online.

The main objective of an organization in carrying out its business operations is to increase customer satisfaction by meeting their demands. This is important because customer satisfaction fosters customer loyalty, which in turn plays an important role in improving a company's sales performance (Le et al., 2020). Successful organizations usually have a high level of client satisfaction with the goods they are (Paulose and Shakeel, 2021). Businesses prioritize customer satisfaction because it has a strong correlation with increased purchase behaviour, repeat visits, and word-of-mouth recommendations that other consumers prefer (Chiguvi and Guruwo, 2020). According to Kotler et al. (2019), consumer happiness plays an important role in their likelihood of promoting a product to others and their loyalty to the product. Before developing loyalty to the products of a company, the client must first feel satisfaction with the quality and level of services offered. Analyses many elements, including company image, service quality, and customer perception of product quality, to assess customer happiness and foster consumer loyalty (Shinta et al., 2020).

The role of service quality can help companies to remain competitive in the market; Conversely, if the quality of service does not meet expectations, customers may feel disappointed (Kaya et al., 2019). Customers have the power to influence brand reputation positively or negatively. Frontline service employees need to interact with customers with concentration, courtesy, and empathy. If this interaction is done well, it can result in a satisfactory service experience; if the interaction does not meet expectations, it can lead to customer dissatisfaction (Bahadur et al., 2018).

The company must be able to retain customers with products and services that have good quality, so that customers feel satisfied and remain loyal (Butarbutar et al., 2019). A product is considered satisfactory to consumers when it is seen to have met or even exceeded their expectations (Susanti and Jasmani, 2020). Consumers in general tend to evaluate product quality before making a purchase, by comparing expected quality with perceived quality (Adhikari, 2018). Quality is one of the main factors that contribute to a consumer's evaluation after making a purchase, including satisfaction, value, trustworthiness, and loyalty to products and services (Suttikun and Meeprom, 2021). The evaluation of the product is also influenced by the

perception of value given by consumers to the product.

Several researchers have investigated the impact of product quality on customer loyalty. For example, Suttikun and Meeprom (2021) conducting studies in the field of tourism business, while Rua et al. (2020) focuses on the education industry in Dili. The perceived value of customers is directly correlated with customer loyalty. Mashaqi et al. (2020) and Harazneh et al. (2020) research service quality, satisfaction to loyalty on the perspective of online shopping in the UAE and Jordan. Research related to electronic satisfaction to electronic loyalty such as research conducted by , which examined 238 in Pakistan. Where in his research to know the influence Iqbal et al. (2018) service quality, satisfaction with customer loyalty. Other research highlights the relationship between customer satisfaction and customer loyalty in a variety of industry contexts, including the food and beverage industry studied by, Suttikun and Meeprom (2021) in the tourism industry, Le et al. (2020) in the manufacturing industry, and Aljumah et al. (2020) in the healthcare industry.

Suttikun and Meeprom (2021) emphasise the need for additional research that combines different variables and is conducted across different businesses to obtain more accurate findings. The purpose of this study is to assess the effect of product quality on customer loyalty, service quality, and customer satisfaction on customers' Grab Food purchase decisions. This research is expected to be a valuable resource for companies that sell their products in Grab Food. It aims to highlight the importance of focusing on service quality and product quality to ensure customer satisfaction and loyalty. In addition, the research is expected to serve as a valuable resource for students and academics in the field of marketing science, aiding the advancement of knowledge and facilitating future research efforts.

B. LITERATURE REVIEW

Product Quality

According to Kotler et al. (2019) Product Quality is how the product has a value that can satisfy consumers both physically and psychologically which shows in the attributes or properties contained in an item or result. The ability of a product to demonstrate its functions, including overall durability, reliability, accuracy, ease of operation, and product repair, as well as other product attributes. Quality according to Kotler and Keller (2016), is the totality of features and characteristics of a product

or service that depend on its ability to satisfy stated or implied needs. Product quality according to Suttikun and Meeprom (2021) is the contribution to increased profits and market share in which Customers tend to compare product quality, with what competitors might offer and then choose the best offer. Increase product quality, As in product design or service processes, it will help attract new customers, retain existing customers, and eliminate competitors who offer lower quality products. When customers perceive a high-quality product, they are more likely to be satisfied and thus willing to pay more (Suttikun and Meeprom, 2021).

Service Quality

Chetthamrongchai et al. (2019) defines service quality as a company's efforts to provide better or superior service compared to customer expectations. According to Deasy & Afriapolo (2022), states that the quality of service assists consumers in buying and delivering goods or services efficiently and effectively. San et al. (2022) suggests that Service Quality Has four dimensions namely efficiency, fulfilment, privacy and system availability, this supports Commerce which goes with the times Service Quality Created to evaluate services provided through the internet network. According to Tran and Vu (2019) Service Quality is a key factor in considering purchasing decisions, Service Quality is Defined as a measure of how closely the level of service provided by a company meets customer expectations. Meaning Service quality is perceived as how far the service can meet customer expectations and needs (Stringam & Gerdes, 2019).

Loyalty

According to Paulose and Shakeel (2021), customer loyalty is "a commitment to repurchase or resubscribe a favoured product/service consistently in the future". In this digital era, the definition of loyalty has undergone a shift to electronic loyalty which it is defined by Kotler et al. (2020), as the customer's intention to return to the website, whether or not they purchase regularly. Online or not. This definition considers customer loyalty as constructive and potentially also advantageous to conventional circumstances. Loyalty can be defined as "the intention to revisit the website". Methods of repurchase may include loyalty and perceived loyalty towards the site that is intended to visit or purchase from that site again (Hapuarachchi and Samarakoon, 2020). Moreover, Loyalty is the consumer's intention to visit an application which can mean consumer interest in companies that can potentially make repeat purchases. Consumer loyalty is an important factor for the income of a company, because consumers associated with a product will recommend products

to their partners, and will continue to buy products from that company. Therefore, an organization needs to maintain customer loyalty (Mahoney & Tang, 2016).

Satisfaction

Consumer satisfaction is the positive reaction of a consumer to a product or service that has successfully satisfied their wants and expectations. Customer satisfaction is a specific emotional or cognitive response that focuses on a certain aspect, such as the product, expectations, or consuming experience and happens at a specified time, often after using the product or service Zeithaml (2018) (Konuk, 2019; Opata et al., 2021; Parry et al., 2021). According to Kotler et al. (2020), Customer satisfaction is the degree to which a person feels after comparing (performance or results) perceived compared to his expectations. It defines customer satisfaction as the result that customers feel when a company meets their expectations. While customer satisfaction is measured by the slight difference between consumer desires and the reality they encounter when using services (Kotler et al., (2019)(Gopi & Samat, 2020). Satisfaction Defined by Trabelsi-Zoghalmi et al. (2020) as his previous purchase experience with a certain trading firm.

Relationships Between Variables

Service Quality to Customer Satisfaction

Service quality is a criterion that clients must acknowledge, and their degree of acceptance depends on their perception. When the service surpasses consumer expectations, it is viewed as optimal quality. Conversely, if the service received is lower than expected, then the quality of service is perceived as poor. So whether or not the quality of service depends on the service provider in meeting the expectations of its customers consistently. According to Research conducted by Le et al. (2020); and Slack et al. (2020), showing the results that the quality of service positively affects customer satisfaction. Supriyanto et al. (2021) also explained in their research on the banking industry in Indonesia that service quality is a positive on customer satisfaction. Based on the results of previous research conducted by Le et al. (2020); Slack et al. (2020); and Supriyanto et al. (2021) the initial hypothesis that the researchers proposed in this study is as follows:

H1: Service Quality Has a positive influence on customer satisfaction

Product Quality to Customer Satisfaction

Products are Everything that a producer can offer to be noticed, demanded, sought, bought, used or consumed by the market as a fulfilment of the needs or desires of the market concerned. So that the quality of a product will be a benchmark

of customer satisfaction. The study of the relationship between Product Quality And customer satisfaction has generated many diverse findings and debates among many researchers. Mahsyar & Surapati (2020), Swinger & Seminary (2020) and Rua et al. (2020) Finding a positive relationship between Product Quality to customer satisfaction. So the initial hypothesis that the researchers proposed in this study is as follows:

H2: Product Quality Has a positive influence on customer satisfaction

Service Quality to Customer Loyalty

Service quality is a standard that must be accepted by customers, but the level of service acceptance is good or bad all back to what is felt by customers. If the service received exceeds customer expectations, then the quality of service is perceived as ideal quality. Service quality that exceeds expectations can lead to loyalty from customers. Research conducted by Le et al. (2020); Slack et al. (2020); and Supriyanto et al. (2021) shows the results that service quality positively affects customer satisfaction. Based on the results of previous research conducted by Le et al. (2020); Slack et al. (2020); and Supriyanto et al. (2021) So the initial hypothesis that the researchers proposed in this study is as follows:

H3: Service Quality Has a positive influence on customer loyalty

Product Quality to Customer Loyalty

Quality products have an important role in shaping customer satisfaction. The more Product Quality is provided, the higher the loyalty felt by customers. If customer satisfaction is higher, it can cause loyalty to customers. Product Quality has a relationship with loyalty. The quality of a product provided to customers will be a commitment that is firmly held by customers so that they return to buy products and make these customers loyal. Consumers who buy quality products will return to loyalty to the products purchased. The more Product Quality provided by the company, the better and more satisfying, customer loyalty will also increase.

Appropriate Kotler et al. (2020), there is a positive correlation between the degree of quality and the amount of consumer satisfaction. In other words, the better the quality, the satisfaction felt by consumers also increases. Because of the significant level of consumer satisfaction, consumers will likely promote the product to others. In research conducted by Suttikun and Meeprom (2021); Rua et al. (2020) When examining the impact of product quality on customer loyalty, its findings showed a positive correlation between product quality and customer loyalty. The researcher's first idea, based on the findings of previous research conducted by Suttikun and Meeprom (2021); Rua et al. (2020), is as follows:

H4: Product Quality Has a Positive Influence on Customer Loyalty

Customer Satisfaction with Customer Loyalty

The correlation between customer satisfaction and customer loyalty forms a relationship between client attitudes, i.e. their level of happiness towards a company's products or services, and their subsequent behaviour in making repeat purchases of those products or services (Chiguvi and Guruwo, 2020). Customers who are satisfied with good service and products will feel happy and happy. Such happiness has a strong beneficial effect on customer loyalty. The presence of happiness has a significant positive impact on consumer loyalty. Satisfied consumers demonstrate loyalty and engage in positive word-of-mouth advertising, thereby reducing the costs associated with customer acquisition for companies. Maintaining customer loyalty over a long period is more financially rewarding than acquiring new customers (Paulose and Shakeel, 2021).

To cultivate customer loyalty, it is very important to guarantee customer satisfaction to the services offered, as emphasized by Ariff et al. (2013) in his research. This satisfaction is crucial in cultivating long-term client loyalty. Previous research has shown a positive and significant correlation between customer satisfaction and customer loyalty. This is evidenced by empirical studies conducted by Suttikun and Meeprom (2021); Le et al., (2020); Aljumah et al. (2020), all of which show a positive effect of satisfaction on customer loyalty. The initial hypothesis proposed by the researcher is based on the findings of previous research conducted by Suttikun and Meeprom (2021); Le et al., (2020); Aljumah et al. (2020) So the initial hypothesis the researcher proposed is as follows:

H5: Customer Satisfaction Has a positive influence on customer loyalty

Mediating Satisfaction on the relationship of Product Quality, Service Quality to Customer Loyalty

Customer satisfaction is formulated as a post-purchase evaluation, in which the perceived performance of the selected products and services meets or exceeds expectations before purchasing (Shinta et al., 2020). If the perception of performance cannot meet or exceed expectations before buying, dissatisfaction occurs. Product Quality Service quality and customer satisfaction are important antecedents of customer loyalty. Research on customer satisfaction as a mediation of influence Product Quality and service to customer loyalty such as research conducted by Ariff et al. (2013); Ngo & Nguyen (2016); Supriyanto et al. (2021); Suttikun & Meeprom (2021), when the results of his research showed that satisfaction was able to mediate the relationship of influence Product Quality and service to customer loyalty. Based

on the results of previous research conducted by Ariff et al. (2013); Ngo & Nguyen (2016); Supriyanto et al. (2021); Suttikun & Meeprom (2021), then the initial hypothesis that the researcher proposed is as follows:

H6: Customer Satisfaction Able to mediate the positive relationship of Product Quality to customer loyalty.

H7: Customer Satisfaction Able to mediate the positive relationship of electronic Service Quality to customer loyalty.

Based on the results of the above hypothesis, the following is the research framework proposed by the author as follows:

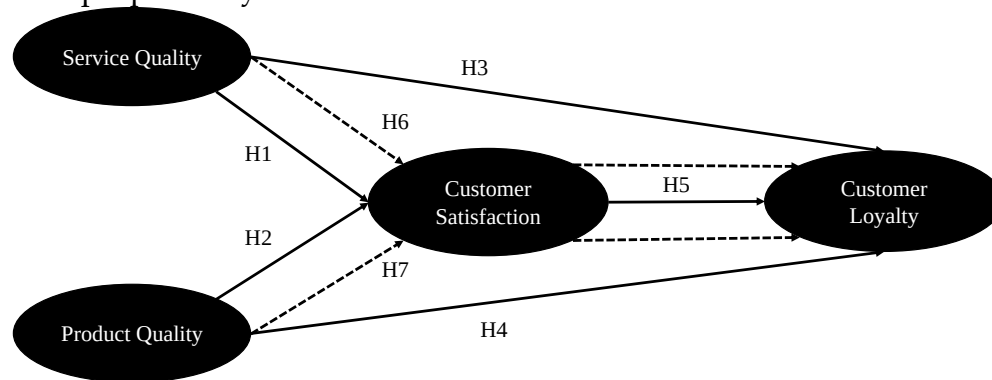


Figure 1. Research Framework

C. METHOD

This study adopts a quantitative research approach, where the variables to be measured use two independent variables, namely Product Quality using indicators suggested by Tran et al. (2020) consists of seven questions, and Quality of Service using indicators referenced from (Venkatakrishnan et al., 2023; Uzir et al., 2021), composed of sixteen questions. In addition, the mediation variable, Customer Satisfaction, uses the indicators suggested by (Uzir et al., 2021; Jasni et al., 2020) with six questions. The dependent variable, Customer Loyalty, uses indicators referenced from Jasni et al. (2020), and consists of five questions. Questionnaires will be distributed to participants, and their responses will be measured using a Likert Scale 1-5. On this scale, score 1 represents "Strongly Disagree", score 2 represents "Disagree", score 3 represents "Neutral", score 4 represents "Agree", and score 5 represents "Strongly Agree" (Syah and Wijoyo, 2021).

The population studied consists of all customers of Grab Food in Indonesia, while the sample size is 173 consumers of Grab Food in Indonesia. The sample size of this study was determined by considering n (variable) $\times$ indicators. In this study there were 4 variables and 34 indicators so a total of $4 \times 34 = 136$ respondents were

obtained. This study used quantitative methodology by utilizing primary data collected through the distribution of questionnaires. The next objective is to conduct comprehensive testing of research models, especially with a focus on the significance of relationships between variables and components, as well as hypotheses. The sampling technique used is purposive sampling, which is the selection of samples based on certain criteria and factors that are in line with the objectives of the study (Wahyuni et al., 2021). The sample selection criteria for this study included individuals of both genders, aged between 19 and 40 years and over, who were customers of food delivery services in the Greater Jakarta area.

This study uses the Structural Equation Model (SEM) for data analysis. SEM is a multivariate statistical technique that integrates factor analysis, path analysis, and regression. This approach is used after researchers have collected the entire questionnaire data to ensure comprehensive research findings. SEM Pls offers advantages in combining hidden variables, which are not assessed directly but are fed into the model to represent the observed data believed to be associated with those latent variables. Smart Pls 3 statistical software package for Windows will be used for statistical data processing.

D. RESULT AND DISCUSSION

Descriptive Analysis

Based on the distribution of questionnaires conducted online through Google Forms, data was collected from as many as 173 respondents who met the predetermined criteria. Based on gender, men were 100 people or 57.8% and women 73 or 42.2%. The respondents' education showed the highest number in diplomas / S1 as many as 85 people or 49.1%, while high school equivalent as much as 73 or 42.2% and finally masters as much as 15 or 8.7%. The highest number of respondents jobs were 97 respondents or 56.1%, students 48 respondents or 27.7%, self-employed 21 respondents or 12.1% and finally civil servants as many as 7 respondents or 4%. In the income criteria, 88 respondents or 50.9% with income of <8 million, 31 respondents or 17.9% with income of > 10 million, in income 8-10 million showed 29 respondents or 16.8%, and finally income of 5-7 million as many as 25 respondents or 14.5%. The criteria for being the most grab foot customers are more than 1 year with 109 respondents or 63%, then less than 6 months as many as 44 respondents or 25.4% and finally between 6-1 years with 20 respondents or 11.6%. Furthermore, based on Grab Food shopping criteria in 1 month, it shows that 82 respondents < 3 times a month, the highest or 47.4%, while respondents who shop 4-9 times a month are 56 respondents or 32.4%, and the lowest is > 10 times shopping as 35 respondents or 20.2%.

Outer Model Testing

Analysis at the outer model stage is carried out to check the suitability of the measurements used in order to have sufficient validity and reliability. This stage aims to establish the relationship between the latent variable and its indicators or explain how each indicator relates to the corresponding latent variable (Hussein, 2015). The outer evaluation of the model can be assessed from the level of convergent validity, where the value of loading latent variable factors with indicators is considered adequate if the correlation is > 0.6 , while the outer loading value between $0.5 - 0.6$ is considered qualified. In addition, discriminant validity, composite reliability, and Cronbach alpha are also used to measure the reliability of a variable, which is considered reliable if its Cronbach alpha > 0.6 . Next, it is important to test the significance of the weight of the formative indicator, where the weight of the formative indicator must be significant to its construct. The results of this study show that all indicators have a value of > 0.5 , which indicates that these indicators have met the outer loading test criteria. From the results of this test, it can be concluded that all outer loading indicators > 0.5 , and the next step is to conduct further validity and reliability tests.

Convergent Validity Test

Converging validity match testing in the model is viewed based on AVE values. A model is considered to have met convergent validity if it has a value greater than 0.6 (Hair et al., 2017). In the context of this study, the results of Average Variance Extracted (AVE) show that product quality variables have AVE values of 0.714 , service quality 0.613 , customer satisfaction 0.763 , and customer loyalty 0.774 . Therefore, it can be concluded that this study has met the criteria of convergent validity by having an AVE value that exceeds 0.6 , and the next step is to conduct further tests.

Discriminant Validity Test

Fornell-Larcker is the method used to evaluate the validity of discriminants. This approach involves reading diagonals between variables or constructs. In the Fornell-Larcker result, notice that the diagonal value between variables is relatively larger compared to the other values. This shows that all variables in the study have passed the validity test and can proceed to the reliability testing stage.

Table 2. Discriminant Validity (Farnell Larcker Criterion)

Custome	Custome	Produc	Service
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	r Loyalty	r Satisfacti on	t Qualit y	Quality
Customer Loyalty	0,880			
Customer Satisfaction	0,814	0,873		
Product Quality	0,609	0,556	0,845	
Service Quality	0,776	0,721	0,589	0,783

Source: processed data 2024

Reliability Test

Minimum threshold for Cronbach's alpha (0.6), Rho-A (0.6), and Composite Reliability (0.6) predetermined) (Hair et al., 2017). The results of the reliability test show that the coefficient Cronbach's alpha for the Product Quality variable of 0.933, the Rho-A coefficient of 0.936, and the Composite Reliability coefficient of 0.714. Regarding the variable of Service Quality, Cronbach's alpha by 0.958, Rho-A by 0.959, and Composite Reliability amounted to 0.962. Furthermore, Cronbach's alpha coefficient of Customer Satisfaction is 0.933, Rho-A coefficient is 0.936, and the coefficient of Rho-A is 0.936, and Composite Reliability amounted to 0.946. Similarly, for Customer Loyalty, Cronbach's alpha coefficient is 0.927, the Rho-A coefficient is 0.929, and the coefficient Composite Reliability amounted to 0.945. Each variable exceeds the criterion threshold value Cronbach's alpha, Rho-A, and Composite Reliability. This shows that the research model has passed the validity and reliability test effectively so that it can proceed to the next step of model estimation.

Table 3. Discriminant Validity (Farnell Larcker Criterion)

	Cronbach's Alpha	rho_A	Composite Reliability
Customer Loyalty	0,927	0,929	0,945
Customer Satisfaction	0,938	0,940	0,951
Product Quality	0,933	0,936	0,946
Service Quality	0,958	0,959	0,962

Source: processed data 2024

Inner Model Testing

Testing Inner The model shows the linkages between hidden variables according to the underlying theory. Evaluating internal models can be done using different techniques, including R-square For dependent construction, testing Stone-Geyser Q-square for predictive relevance, and performing a t-test to determine the importance of path coefficient parameters. Hypothesis testing includes an examination of t-statistical values and probability values. The t-statistic value was

used in hypothesis testing of 1.96 with a significance threshold of 5%. Thus, the criterion for acceptance or rejection of a hypothesis is H_a accepted and H_0 rejected if the t-statistic is greater than 1.96. A hypothesis is considered valid if the value p-value is below 0.05, which is determined by the probability value used to accept or reject the hypothesis (Hussein), 2015).

Structural Model Evaluation (Inner Model)

Coefficient of Determination

Data analysis will initially provide the results of structural model verification (inner model) against the coefficient of determination (R^2). The coefficient of determination, often called R-Square (R^2), is a value that ranges from 0 to 1 and is separated into three assessment criteria. First, an R-Square (R^2) value that is between 1 and 0.75 is considered substantial or strong. In addition, R-square values (R^2) ranging from 0.74 to 0.5 are considered quite light. Furthermore, the R-Square (R^2) value which ranges from 0.49 to 0.25 is relatively weak. An R-Square value of 0.541 indicates that a 54.1% variation in customer satisfaction can be explained by product quality and service quality variables. The remaining 45.9% of the variation was due to other variables that were not included in the research model. Customer loyalty variables can be associated with 74.4% of product quality, service quality, and customer satisfaction variables, while the remaining 25.6% are influenced by additional variables that are not included in the research model. The result is classified as "moderate".

Path Analysis

The study of the path coefficients or inner models can be assessed by examining their level of significance, as indicated by the statistics and p-values associated with each link in the hypothesis. A hypothesis is considered significant if it has a t-statistic exceeding 1.96 and a p-value below 0.05. Furthermore, model evaluation is carried out by analysing significant values through the bootstrapping process to determine the impact between variables. This approach uses the complete original sample for re-sampling. This study used a total of 96 bootstrap samples. The anticipated value of t is greater than 1.96 at the significance level of 10%, greater than 1.96 at the significance level of 5%, and greater than 2.326 at the significance level of 1%. This study used a significance level of 5% for t values, using t values greater than 1.96. The t values obtained from these investigations are shown in the table below:

Table 4. Direct Effect

Original Sample	Sample Mean	Standard Deviation	T Statistics (O/STDEV	P Value
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	(O)	(M)	(STDEV)	l)	s
PQ → CS	0.603	0.607	0.075	8.089	0.000
SQ → CS	0.201	0.193	0.068	2.970	0.003
PQ → CL	0.134	0.129	0.050	2.669	0.008
SQ → CL	0.341	0.356	0.091	3.731	0.000
CS → CL	0.494	0.482	0.088	5.615	0.000

Source: processed data 2024

The output results show a significant influence (p-value > 0.05) both on direct and indirect influences. The p-value for product quality and service quality about customer satisfaction was found to be less than 0.05. Nonetheless, statistical analysis shows that the p-value for the effect of product quality and service quality on customer loyalty, as well as customer satisfaction on customer loyalty, is greater than 0.05.

Table 5. Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
PQ → CS → CL	0.099	0.096	0.044	2.279	0.023
SQ → CS → CL	0.298	0.289	0.050	6.010	0.000

Source: processed data 2024

Statistical analysis shows that there is a significant relationship between product quality, service quality, and customer loyalty. Mediating customer satisfaction was found to be a significant factor in this relationship, with a p-value of less than 0.05.

Path Diagram

Based on the results of the output conducted by researchers using 173 samples, the path diagram image in this study looks like in the picture below:

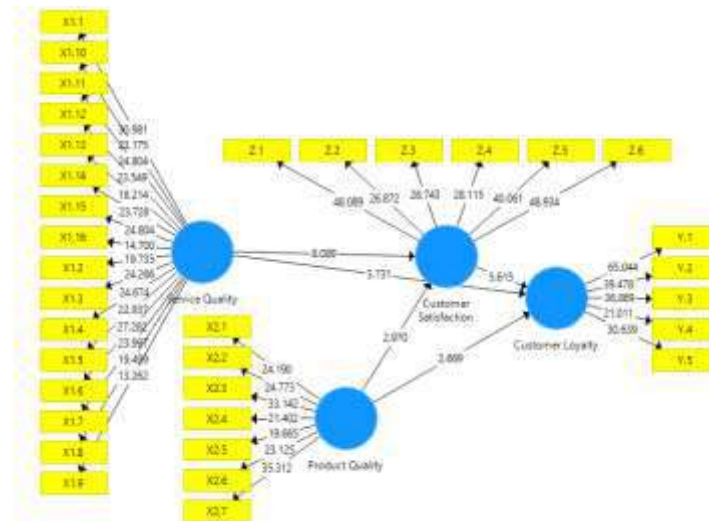


Figure 2. Path Diagram

Hypothetical Results

Based on the results of the path analysis, it can be concluded that the entire hypothesis is accepted because it has a P-value of < 0.05 . The results of the researchers' hypothesis are seen in the table as follows:

Table 6. Research Hypothesis Testing Results

HYPOTHESIS		T Statistic	P-values	Result
H1:	Service Quality Has a positive influence on customer satisfaction	8.089	0.000	Results Support the Hypothesis
H2:	Product Quality Has a positive influence on customer satisfaction	2.970	0.003	Results Support the Hypothesis
H3:	Service Quality Has a positive influence on customer loyalty	2.669	0.008	Results Support the Hypothesis
H4:	Product Quality Has a positive influence on customer loyalty	3.731	0.000	Results Support the Hypothesis
H5:	Customer Satisfaction Has a positive influence on customer loyalty	5.615	0.000	Results Support the Hypothesis
H6:	Customer Satisfaction Able to mediate the positive relationship of Service Quality to customer loyalty	6.010	0.000	Results Support the Hypothesis
H7:	Customer Satisfaction Able to mediate the positive relationship of product quality to customer loyalty.	2.279	0.023	Results Support the Hypothesis

Source: data proceed

Hypothesis 1 has a p-value of 0.0000 which is less than 0.05, which indicates support for the hypothesis. Hypothesis 2 has a p-value of 0.0003 which is also less than 0.05, thus supporting the hypothesis. Hypothesis 3 with p-values of $0.008 < 0.005$ shows that the results strongly support the hypothesis. Hypothesis 4 with a p-value of $0.000 < 0.05$ also shows strong support for the hypothesis. A p-value of 0.000 for Hypothesis 5 that is greater than 0.005 indicates that the data do not fit the hypothesis. Hypothesis 6 with p-values of $0.000 < 0.005$ also supports this hypothesis. Hypothesis 7 with a p-value of $0.0023 < 0.005$ supports this hypothesis.

Discussion

In the results of the first hypothesis, this study shows the positive influence of service quality on customer satisfaction in Grab Food, which has an important contribution to understanding the dynamics of interactions between service providers and consumers in the digital age. This research highlights the importance of aspects of service quality, such as responsibilities, delivery reliability, food quality assurance, empathy, and transaction safety, in shaping customer perceptions of the experience of using the food delivery service platform Grab Food. These findings suggest that customers who receive better service tend to have higher levels of satisfaction, which in turn can improve customer loyalty and the brand image of Grab Food. Overall. This research is in line with research conducted by Le et al. (2020); Slack et al. (2020); Supriyanto et al. (2021), who invented The positive influence of service quality on customer satisfaction.

In the results of the second hypothesis, this study explains the positive influence of Product Quality on customer satisfaction grab food, which highlights the importance of product aspects in influencing consumer perceptions and experiences in the food delivery service industry. This research reinforces the understanding that Product Quality Including cleanliness, consistency of taste, menu variety, and nutritional value, play a crucial role in shaping customer satisfaction. In context Grab Food, where customers often make decisions based on the menu available and the quality of food served, Product Quality Superior can be a determining factor in maintaining and increasing customer satisfaction. In the fiercely competitive environment in the food delivery service industry, a deep understanding of customer expectations of products and efforts to meet them through Product Quality Being superior can be the key to long-term success for Grab Food, in maintaining its market share. This research is in line with research conducted by Mahsyar & Surapati (2020) Finding a positive relationship between Product Quality to customer satisfaction.

The results of the third hypothesis of this study revealed that Service quality provided by Grab Food has a significant influence on the level of customer satisfaction. One of the expected positive impacts of high service quality is increased customer loyalty. For consumers to remain loyal, Grab Food must constantly innovate, improve its operations, and listen to customer feedback to ensure that service quality is maintained and continuously improved. This research is in line with research conducted by Le et al. (2020); Slack et al. (2020); Supriyanto et al. (2021) that shows the results that service quality positively affects customer satisfaction.

The results of the fourth hypothesis of this study show that Product Quality provided by Grab Food has a strong impact on customer loyalty levels. Product Quality High ones, covering aspects such as taste, presentation, consistency, and ease of ordering, play a key role in shaping customer loyalty to this platform. This research is in line with research conducted by Suttikun and Meeprom (2021); and Rua et al. (2020) that shows the result that Product Quality has a positive influence on customer loyalty.

In the results of the fifth hypothesis, this study shows that the level of customer satisfaction at Grab Food has a significant positive impact on customer loyalty levels. Customer satisfaction and customer loyalty are two key factors that are very important in the success of a business, especially in service industries such as food delivery services. In the context of Grab Food in Jakarta, where competition is fierce, understanding the relationship between customer satisfaction and customer loyalty is crucial in maintaining business growth. This in turn strengthens their emotional bond with the brand and encourages long-term loyalty. This research is in line with research conducted by Suttikun & Meeprom (2021); Le et al., (2020); Aljumah et al. (2020) Where his research shows a positive influence between satisfaction and customer loyalty.

The results of the sixth hypothesis of this study show that this study has revealed that customer satisfaction can function as a significant mediator in the relationship between product quality and customer loyalty on the Grab food delivery service platform. In the context of grab food, high product quality, covering aspects such as taste, presentation, consistency, and availability of quality partner restaurants, plays an important role in shaping customer perceptions of the platform. This research is in line with research conducted by Ngo and Nguyen Ariff et al. (2013); Supriyanto et al. (2021); Suttikun and Meeprom (2021), during the results of their research showed that satisfaction was able to mediate the relationship between the influence of product quality on customer loyalty.

In the results of the seventh hypothesis, this study shows that customer satisfaction serves as an important mediator in the positive relationship between service quality and customer loyalty. The quality of service, which includes aspects such as responsiveness, delivery reliability, food quality, and ease of use of the app, has a significant impact on customer satisfaction with Grab Food. Grab Food can build strong and sustainable relationships with its customers, strengthen its brand image, and expand its market share in the fast-growing food delivery industry. This research is in line with research conducted by Ngo and Nguyen Ariff et al. (2013); Supriyanto et al. (2021); Suttikun and Meeprom (2021), during the results of their research showed that satisfaction was able to mediate the relationship between the influence of service quality on customer loyalty.

E. CONCLUSION

Research shows that both product quality and service quality have a significant influence on Grab Food's customer satisfaction and loyalty in the Greater Jakarta area. This shows that aspects such as food taste, ease of ordering, and speed of delivery contribute significantly to customers' decision to keep using Grab Food services repeatedly. The results also highlight the important role of customer satisfaction as a mediator between product quality/service and customer loyalty. That is, customer satisfaction serves as a bridge that connects customers' positive experiences with their intention to remain loyal to using grab food services. This shows that increasing customer satisfaction can be an effective strategy for strengthening customer loyalty.

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