

# The Impact of Product Quality and Courier Service Quality on Customer Loyalty, with Customer Satisfaction as Mediator (An Empirical Study of Alfagift Application Users In Greater Jakarta)

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**ABSTRACT:** This study examines the impact of product quality and courier service quality on customer loyalty, with customer satisfaction acting as a mediating variable, within the context of e-grocery applications Alfagift in Indonesia. This study collected 120 samples of Alfagift application users in Greater Jakarta using non-probability based predefined criteria. The Likert scale based questionnaire data was collected and analyzed using structural equation model (SEM) and AMOS software. The result indicates that product quality and courier service quality positively and significantly impact customer satisfaction. Furthermore, both product quality and courier service quality positively and significantly impact customer loyalty. Meanwhile, customer satisfaction acted as a mediation in the relationship between product quality and courier service quality on customer loyalty. The research underscores the importance of quality control and operation efficiencies in enhancing customer satisfaction and retention. Finally, this research serves as a reference and provides insights for businesses aiming to foster customer loyalty.

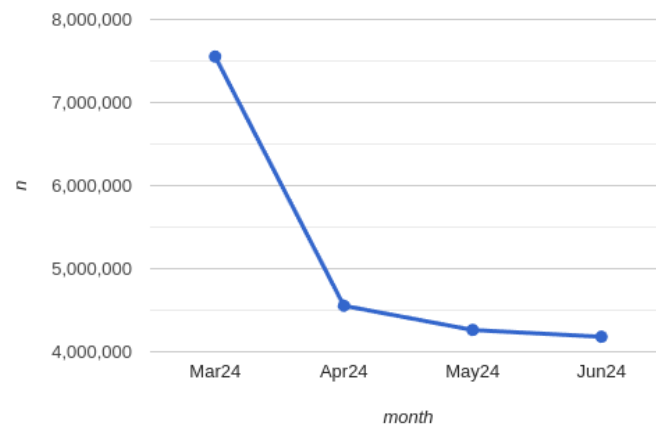
**Keywords:** product quality, courier service quality, customer satisfaction, customer loyalty

## INTRODUCTION

In the face of a growing e-commerce landscape and part of its effort to expand and growth strategies, Indonesia's leading convenience store chain, Alfamart, has transformed its online business offerings with Alfagift, an innovative e-grocery mobile application solution. By leveraging Alfamart's massive network of physical stores spread across the nation and beyond Southeast Asia, Alfagift provides a seamless online shopping experience with provision of free delivery charges as its key attractions. This unique business model is made possible by utilizing the vast distribution network of Alfamart outlets near the community's residential area across Indonesia. This strategic integration of online and offline channels has positioned Alfagift as a convenient and accessible option for consumers seeking grocery solutions.

Alfagift's appeal extends beyond cost-effectiveness. The app caters to a diverse clientele, attracting young adults seeking affordable grocery shopping options, busy young families looking to save time on errands, and even niche consumers with specific dietary needs. The extensive product selection available at alfamart translates to a wide variety of choices on

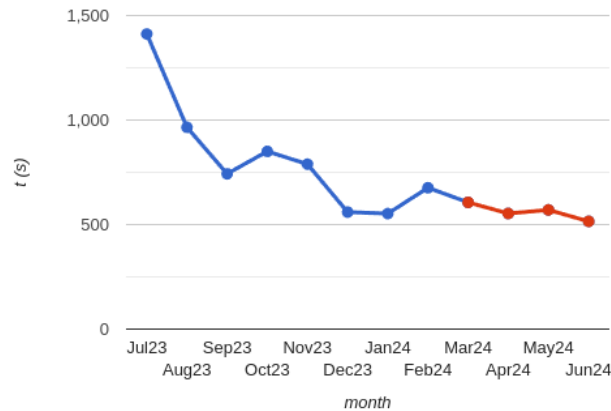
alfagift, ensuring there's something for everyone. This has helped alfacgift to grow its users and sales over the last few years to rank among the top most used applications across both ios app store and android play store in indonesia (dewi, cnbc indonesia, 2022).



**Figure 1 Alfacgift Total Monthly Transactions 2024**

However, maintaining the positive growth trend presents a significant challenge for Alfacgift. Despite a robust performance in the first quarter of 2024, Alfacgift experienced a downturn in the second quarter. Data from Figure 1, which details Alfacgift's total monthly transactions, underscores this issue. A notable decline occurred in April following a peak in March, coinciding with the Ramadan celebrations in Indonesia, which typically drive higher consumer spending. Subsequently, transactions decreased by 6.40% in May and 1.9% in June (PT. Global Loyalty Indonesia Internal Report, 2024), indicating a clear reversal in the growth trend and raising concerns about the company's ability to sustain its business momentum.

Alfacgift has invested significantly in improving its logistics infrastructure courier called SAPA ("Siap Antar Pesanan Anda") to achieve faster delivery times, aiming to foster growth and customer loyalty. Data presented in Figure 1 indicates a consistent downtrend in average delivery time each month over the past year, suggesting that these operational investments are yielding the expected results. However, despite these logistical improvements, Alfacgift has experienced a decline in sales numbers, as illustrated in Figure 1 (PT. Global Loyalty Indonesia Internal Report, 2024). This lack of correlation between faster delivery service and sales performance is evident in the second quarter of 2024, as shown by the red-highlighted line graph. According to (Porter, 1998) in "Competitive Advantage: Creating and Sustaining Superior Performance," focusing on a differentiation strategy, such as providing consistent and faster deliveries, is crucial for winning customer favor and distinguishing a company from its rivals. Moreover, research by (Leonita, Benhardy, Ariesty, & Ikhsan, 2023) emphasizes that service quality and faster delivery times are significant factors in fostering customer loyalty. This discrepancy between established theories and Alfacgift's current situation underscores the need to explore this research gap further.



**Figure 2 Alfagift Average Delivery Time 2023-2024**

Hence, based on the problems above, this paper aims to conduct a comprehensive investigation of the relationship between product quality, faster delivery time as components of service quality, and customer satisfaction and their collective impact on customer loyalty. Specifically, this study will explore how these factors influence customer perceptions and behaviors, and ultimately their implications on sales performance within the context of alfagift. Drawing from prior research and the current situations, this investigation will contribute to the existing body of knowledge by identifying potential areas for strategic adjustment and offering actionable insights for alfagift and similar companies striving to enhance their market performance through improved service quality and logistical efficiency.

This study examines the impact of product quality and courier service quality on customer loyalty, with customer satisfaction acting as a mediating variable, within the context of e-grocery applications Alfagift in Indonesia.

The novelty of this study lies in its exploration of the interplay between product quality, courier service quality, and customer satisfaction as determinants of customer loyalty within the context of Alfagift, a rapidly growing e-grocery platform in Indonesia. Unlike prior research, which often examines these factors in isolation or within different industry contexts, this study specifically focuses on the e-grocery sector, a burgeoning area of e-commerce, and highlights the unique challenges faced by Alfagift in maintaining its market position amid fluctuating sales and delivery performance. Additionally, this research addresses the gap between theoretical expectations, such as those proposed by Porter regarding the impact of differentiation strategies like faster delivery times, and the real-world outcomes observed in Alfagift's operations. By doing so, the study offers new insights into how these elements interact in a dynamic and competitive e-commerce environment, providing valuable strategic recommendations for businesses aiming to enhance customer loyalty and market performance through service quality improvements.

## RESEARCH METHODOLOGY

This research was conducted at Greater Jakarta, Indonesia. The data collection method was a survey using a questionnaire distributed online via Google Forms. The unit of analysis for this research is an organization which is Alfagift mobile application users. The population of this study is all Alfagift application users in Indonesia. Alfagift is an e-groceries solution application ranking among most downloaded applications on both IOS and Android in Indonesia. The collected data was then analyzed using the Structural Equation Modeling (SEM) and AMOS 22 software. This statistical tool is utilized to calculate and analyze

questionnaire data, which is subsequently processed into comprehensive statistical insights. SEM allows testing a series of relatively complex relationships simultaneously.

According to (Hair, 2019), the minimum number of respondents can be determined by multiplication 5 of the total research indicators. This research uses 18 indicators, hence the minimum number of respondents can be set at 5 multiplied by 18, which is 90. This research determined 120 valid respondents in this study, where this amount meets the minimum requirements of 90 referring to in (Hair, 2019).

The respondents in this research are representative of Alfagift users and consumers in Indonesia. The selection of respondents is set according to two criteria. First, respondents must acknowledge themselves or have downloaded the Alfagift mobile application on their personal smartphone. Second, respondents are subjected to at least having completed a single transaction using the Alfagift mobile application. This indicates that the respondent has gone through a complete transaction journey and has a valid opinion towards their overall experience.

The sampling technique in this research uses non-probability sampling with purposive sampling technique. According to (Sekaran & Bougie, 2017), non-probability sampling refers to a sampling technique where not every member of the population has an equal chance of being selected. This is relevant because the main goal of this research is to gain insights rather than to generalize findings to the entire population. Additionally, it enables the selection of specific subjects who possess and fit pertinent to the research, which might not be feasible through random sampling methods. Meanwhile, purposive sampling means the researcher chooses samples that are considered to provide information and data that is in accordance with the objective research and also samples that are deemed to comply with the criteria set by the researcher. In this case, this research has determined which users are eligible to become a valid respondent.

The research instrument used in this study was a questionnaire with a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The dimensions and indicators used to measure product quality, referring to (Setyadi, Helmi, & Santoso, 2024), are as follows: 1) Durability, 2) Conformity to Specifications, 3) Feature, 4) Reliability, 5) Aesthetics. The dimensions and indicators used to measure courier service quality, referring to (Gulc, 2020), are as follows: 1) Timeliness of delivery, 2) Successful delivery attempt, 3) Lack of damage to the package, 4) Aesthetic and neat appearance of courier, 5) Positive experience with courier service, 6) Flexibility of choice and change of date and place of service. This study adopts the indicators used by (Masudin, Safitri, Restuputri, Wardana, & Amallynda, 2020) to measure customer satisfaction, including: 1) Customers get excellent service, 2) The service and product received corresponds to the price paid, 3) Services and products make customers feel good. The dimensions and indicators used to measure customer loyalty, referring to, are as follows: 1) I give favorable opinions to the service provided and service providers, 2) I intent to use the same service provider again, 3) I recommend products or services to others, 4) I make the service provider my first choice.

## **RESULT AND DISCUSSION**

### **Respondents Demographic**

The study involved 69 male respondents (57.5%) and 51 female respondents (42.5%). The majority of respondents were aged 18-25 years (55.8%), indicating that the majority of the users are university students and young adults. Then followed by respondents aged 26-35 years (39.2%). The majority of respondents (73.3%) have a bachelor degree or at that time are

pursuing a bachelor degree and equivalent, indicating that the users are well educated. Most of the respondents have a professional job (76.7%) followed by students (13.3%). Finally, the majority of the respondents (34.2%) spend on average Rp. 1,000,000 to Rp. 2,500,000 on groceries each month. While only about 8 respondents or (6.7%) spend more than five million Rupiah on groceries each month.

**Table 1. Respondents Profile**

Profile	Classification	Frequency	Percentage
Gender	Male	69	57.5%
	Female	51	42.5%
Age	18-25	67	55.8%
	26-35	47	39.2%
	36-45	5	4.2%
	45-55	1	0.8%
Education	High School	1	0.8%
	Diploma	24	20.0%
	Bachelor	88	73.3%
	Masters	7	5.8%
Occupation	Professionals	92	76.7%
	Student	16	13.3%
	Housewife	6	5.0%
	Self-employed	3	2.5%
	Others	3	2.5%
Average spending on groceries each month	< Rp. 500,000	21	17.5%
	Rp. 500,000 - Rp. 1,000,000	25	20.8%
	Rp. 1,000,000 - Rp.2,500,000	41	34.2%
	Rp. 2,500,000 - Rp. 5,000,000	25	20.8%
	> Rp. 5,000,000	8	6.7%

### Validity Testing

Based on Table 2, the result shows that all indicator values have regression weight  $\geq 0.5$ . Thus it can be concluded that overall the indicators of each change in this research are valid. So that's all Indicators can be used to carry out measurements at a later stage.

Variable	Indicator	Regression Weights	Conclusion
Product Quality	PQ1	1.00	Valid
	PQ2	1.25	Valid
	PQ3	1.31	Valid
	PQ4	1.34	Valid
	PQ5	1.13	Valid
Courier Service Quality	CSQ1	1.00	Valid
	CSQ2	1.06	Valid
	CSQ3	0.88	Valid
	CSQ4	0.93	Valid
	CSQ5	0.93	Valid
	CSQ6	0.80	Valid
Customer Satisfaction	CS1	1.00	Valid
	CS2	0.93	Valid
	CS3	0.97	Valid

Customer Loyalty	CL1	1.00	Valid
	CL2	0.98	Valid
	CL3	0.99	Valid
	CL4	1.02	Valid

**Table 2. Validity Test Result**

Variable	Indicator	Regression Weights	Conclusion
Product Quality	PQ1	1.00	Valid
	PQ2	1.25	Valid
	PQ3	1.31	Valid
	PQ4	1.34	Valid
	PQ5	1.13	Valid
Courier Service Quality	CSQ1	1.00	Valid
	CSQ2	1.06	Valid
	CSQ3	0.88	Valid
	CSQ4	0.93	Valid
	CSQ5	0.93	Valid
	CSQ6	0.80	Valid
Customer Satisfaction	CS1	1.00	Valid
	CS2	0.93	Valid
	CS3	0.97	Valid
Customer Loyalty	CL1	1.00	Valid
	CL2	0.98	Valid
	CL3	0.99	Valid
	CL4	1.02	Valid

**Reliability Testing**

In Table 3, it can be seen that the Cronbach's Alpha value of each variable is above 0.6. So, according to research done by (Hair, 2019), it can be concluded that all the variables in this study have met the reliability criteria.

**Table 3. Reliability Test Result**

Variable	Cronbach's Alpha	Conclusion
Product Quality	0.94	Reliable
Courier Service Quality	0.96	Reliable
Customer Satisfaction	0.96	Reliable
Customer Loyalty	0.96	Reliable

**Goodness of Fit**

In this study, the Goodness of Fit test was used as reference whether the model is acceptable. This test was carried out because of the data analysis method used in the (SEM) and AMOS program. According to (Ghozali, 2017) in SEM, there are 12 cut-off value provisions that can be used to measure the overall research model to establish whether the model is running well. The results on Table 4 show that there are more "Good Fit" models than "Not Fit". Hence, it was concluded that this research model was fit and could be continued for the process hypothesis analysis.

**Table 4. Goodness of Fit Result**

Index	Cut off Value	Result	Conclusion
<i>Chi-Square</i>	"the smaller the value, the better"	225.30	
DF	"the bigger the value, the better"	115	

<i>Significance Probability</i>	≥ 0.05	0.00	Not Fit
CMIN/DF	≤ 2.00	1.96	Marginal Fit
GFI	≥ 0.90	0.84	Marginal Fit
AGFI	≥ 0.90	0.76	Marginal Fit
CFI	≥ 0.90	0.96	Good Fit
NNFI/TLI	≥ 0.90	0.95	Good Fit
NFI	≥ 0.90	0.93	Good Fit
RMSEA	≤ 0.08	0.09	Not Fit
RMR	≤ 0.05	0.02	Good Fit
PNFI	> 0.60	0.70	Good Fit

### Hypotheses testing

Hypothesis testing is carried out by looking at the output results of the regression values weights model from the AMOS program. Table 5 explains the model estimation results.

**Table 5. Regression Weights Result**

Hypothesis	Path	Estimate	CR	P	Conclusion
H1	Product Quality → Customer Satisfaction	0.87	6.58	0.00	Supported
H2	Courier Service Quality → Customer Satisfaction	0.36	5.26	0.00	Supported
H3	Product Quality → Customer Loyalty	0.50	4.49	0.00	Supported
H4	Courier Service Quality → Customer Loyalty	0.23	4.61	0.00	Supported
H5	Customer Satisfaction → Customer Loyalty	0.48	5.70	0.00	Supported
H6	Product Quality → Customer Satisfaction → Customer Loyalty	0.41	4.31	0.00	Supported
H7	Courier Service Quality → Customer Satisfaction → Customer Loyalty	0.17	3.87	0.00	Supported

The results support the first hypothesis (H1) explaining that when the product quality is perceived as superior, the customer satisfaction of Alfagift users will increase. This study conceptualizes product quality through durability, reliability, functionality and conformity to specifications. Therefore, if Alfagift aims to enhance customer satisfaction of its users, the

management needs to optimize the quality standard of their products, apply high quality control measures, and maintain good product quality governance. This in turn will increase and support higher satisfaction of Alfagift customers. This finding supports the research conducted by (Mubarok, Subarjo, Raihan, Wiwin, & Bandawaty, 2023).

The results support the second hypothesis (H2) explaining that when the courier service quality is perceived as superior, the customer satisfaction of Alfagift users will increase. This is predicated on the assumption that elevating the knowledge base of delivery service personnel will positively influence customers' perceptions and experiences, thereby contributing to increased satisfaction. The management needs to invest in a well-informed and skilled delivery workforce in order to deliver exceptional service, which in turn fosters customer loyalty and positive word-of-mouth. Consequently, the professional development of delivery personnel can be a strategic approach to improving overall customer satisfaction and business performance. This finding supports the research conducted by (Gonu, Agyei, Richard, & Asare-Larbi, 2023).

The results support the third hypothesis (H3) explaining that when product quality is perceived as superior, the customer loyalty of Alfagift users will increase. This finding underscores the critical role of product quality in fostering customer retention. By consistently delivering high-quality products, the management can cultivate a loyal customer base and gain a competitive edge in the market. This finding further supports the research conducted by (Ogestine, Pakpahan, & Rostina, 2023; Somalua & Siregar, 2022).

The results validate the fourth hypothesis (H4) demonstrating a direct correlation between perceived courier service quality and increased customer loyalty among Alfagift users. This finding emphasizes the pivotal role of efficient and reliable delivery services in fostering customer retention. The management should prioritize continuous improvement in courier service quality as a strategic imperative. By investing in driver training, implementing advanced delivery technology, and optimizing delivery routes, the company can enhance customer satisfaction and loyalty. Furthermore, monitoring and addressing customer feedback related to delivery services will be crucial for maintaining a competitive edge. This finding supports the research conducted by (Gong & Yi, 2018).

The results confirm the fifth hypothesis (H5) that a positive correlation exists between customer satisfaction and customer loyalty among Alfagift users. This finding underscores the importance of prioritizing customer satisfaction as a key driver of long-term customer relationships. The management should implement strategies to consistently exceed customer expectations and foster a loyal customer base. This can be achieved through initiatives such as enhancing customer support services, personalizing customer experiences, and actively addressing customer issues. By prioritizing customer satisfaction, Alfagift can strengthen its brand reputation and drive sustainable growth. This finding supports the research conducted by (Mofokeng, 2021).

The results validate the sixth hypothesis (H6), indicating that perceived product quality positively influences customer loyalty among Alfagift users, with customer satisfaction acting as a mediating factor. This suggests that superior product quality leads to increased customer satisfaction, which in turn drives customer loyalty. Focus on providing exceptional product quality to enhance customer satisfaction should be set as top priority. By consistently meeting or exceeding customer expectations in terms of product performance, durability, and features, Alfagift can create a strong foundation for customer loyalty. Additionally, the management should closely monitor customer satisfaction levels to identify areas for improvement and to



ensure that product quality remains a key competitive advantage. This finding supports the research conducted by (Rua, de Sousa Saldanha, & Amaral, 2020).

The results support the seventh hypothesis (H7), demonstrating that perceived courier service quality positively impacts customer loyalty among Alfacift users, with customer satisfaction acting as a mediating variable. This implies that superior courier service quality leads to increased customer satisfaction, which subsequently drives customer loyalty. Alfacift should strive to create a positive delivery experience that drives customer satisfaction and strengthens customer relationships. Continuously monitoring customer satisfaction levels such as time of delivery and success rate of order delivery will be essential to identify areas for improvement and maintain a high level of service. This finding supports the research conducted by (Supriyanto, Wiyono, & Burhanuddin, 2021).

## **CONCLUSION**

This research aims to explore the influence of product quality and courier service quality on customer loyalty. The study also analyzes the role of customer satisfaction as a mediating variable in the influence of product quality and courier service quality on customer loyalty. The sampling method used is non-probability sampling. Respondents in this study are Alfacift application users who have downloaded and completed at least one order. Based on the results and discussion of this research, it can be found that product quality has a positive and significant effect on customer satisfaction. The findings of this research prove that superior perceived product quality, the higher the customer satisfaction of Alfacift users. Similarly, courier service quality was also found to have a positive and significant effect on customer satisfaction. This finding underscores the importance of effective courier services in creating positive customer experiences and building customer satisfaction. Product quality has a positive and significant effect on customer loyalty. This implies that offering high-quality products is crucial for cultivating a loyal customer base and driving long-term business success. Courier service quality has a significant and positive effect on customer loyalty. This highlights the importance of efficient and reliable delivery services in driving customer loyalty and retention. Furthermore, this study shows that there is a positive and significant effect between customer satisfaction and customer loyalty. Hence, emphasizes the critical role of customer satisfaction in driving long-term customer relationships and fostering loyalty. Product quality has a positive and significant effect on customer loyalty, with customer satisfaction acting as a mediator. This indicates that enhancing product quality can indirectly boost customer loyalty by increasing customer satisfaction. Finally, courier service quality has a positive and significant effect on customer loyalty, with customer satisfaction acting as mediator. This implies that improving courier service quality can indirectly increase customer loyalty by enhancing customer satisfaction.

This research writing process of this study has limitations that can serve as references for future research. These limitations include: firstly, this research was conducted in a cross-sectional method or at a specific point in time, while phenomena will continue to evolve and issues will become more complex over time. Therefore, studies on topics related to this research needs to be conducted and explored again in the future. Secondly, this research is limited to examining customer satisfaction and customer loyalty driven by individual perceived product quality and courier service quality, thereby unable to explore deeper into other predictors or factors capable of explaining the increase in customer satisfaction and loyalty. Thirdly, this study is based on questionnaire responses according to variable indicators

containing statements. These statements may be interpreted differently by each respondent, and the respondent's answers may only represent acceptable responses.

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