



The Role of Customer Engagement in Mediating The Effect of Service Quality on Customer Loyalty

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Abstract: Competition drives courier service companies to work harder to serve the quality of their services. However, customer involvement is necessary to enhance customer loyalty. This study investigates the mediating role of customer engagement in the relationship between service quality and customer loyalty in Paxel's courier services. The objective of this study enhances the impact of service quality on loyalty. Data were collected through questionnaires from a sample of 190 Paxel users with respondents meeting the criteria of having a minimum education of high school and having used Paxel's services at least twice. The findings indicate that service quality significantly affects loyalty both directly and through customer engagement, emphasizing the critical role of engagement. The study concludes that improving service quality and actively engaging customers are essential strategies for strengthening loyalty, offering valuable insights for practitioners and researchers in the service industry. Especially in courier service.

Keywords: Service Quality, Customer Loyalty, Customer Engagement, Expedition, Paxel

INTRODUCTION

According to data compiled by Katadata Insight Center, 17.5% of people chose to switch from offline to online shopping as a result of the rise of online shopping trends due to the pandemic. When compared to the initial increase of 11%, in 2021 there was an increase to 25%, which is quite a large increase. This of course motivates courier services to continue to compete for a large number of customers.

Based on data from <https://www.topbrand-award.com/> in 2023 quarter two shows that the top 5 Top Brand Index (TBI) for freight forwarding services is held by J&T (33.30%), JNE (29.10%), TIKI (10.60%), Pos Indonesia (7.30%) and DHL (7.20%). TBI in 2022, JNE (39.30%), J&T (23.10%), TIKI (11.10%), Pos Indonesia (8.50%) and DHL (6.90%). TBI in 2021 was achieved by J&T (33.40%), JNE (28%), TIKI (11.20%), Pos Indonesia (8.50%) and DHL (6%). From this data, competition is fierce in freight forwarding companies.

According to a survey from Katadata, the majority of e-commerce sellers in Indonesia prefer expedition services from J&T Express (58%), followed by JNE (45%), Shopee Xpress (28%), and SiCepat (27%). Paxel, although not yet in the top ranks, continues to innovate to attract more customers with fast and reliable delivery services.

Paxel is a courier service that is more flexible than other courier services because Paxel has an application that can be downloaded via the app store or google play. There are various services that can be used in the Paxel application, namely one-day delivery, instant, to delivery services for large quantities of packages. Using this application is quite easy, all you need to do is download the Paxel application, prepare the sender and recipient data and then select the desired delivery service.

Loyal customers are less sensitive to price changes and motivate potential customers to use a particular provider's services by spreading positive word of mouth (Akbar and Parvez, 2009) in (Akbar & Parvez, 2009). Therefore, loyal consumers are considered an asset to the organization. In the context of e-banking, customer loyalty can be defined as "a consumer's propensity to frequently visit the bank's website, regularly utilize e-banking services and spread positive word of mouth about e-banking services" (Jeong and Lee, 2010; Kaur et al, 2012; Amin, 2016).

To maintain customer loyalty, Paxel Kurir offers same-day delivery services, technology-based applications for ease of use, loyalty programs with points and rewards, responsive customer service, and strategic partnerships with e-commerce platforms. These efforts have helped Paxel maintain and increase customer satisfaction, despite being under the dominance of logistics giants such as J&T Express and JNE.

Kasus et al., (2023) asserts that a company's primary goal should be service quality. These days, every business strives to offer clients a close-knit, amiable, and excellent level of service. This is the rationale for businesses starting up and observing consumer demands and preferences for goods and services. The Paxel corporation hopes that by providing high-quality service, customers would be more inclined to purchase Paxel delivery services in the future. The goal of this is to increase customer loyalty to the Paxel business.

Providing excellent customer service is one method of cultivating client loyalty. Another is to retain and develop profitable customer connections by offering high customer satisfaction ratings, which will enable the company to boost customer loyalty. Individual loyalty to a specific brand is measured by the strength of the correlation between relative attitudes and repeat business (Pertiwi et al., 2022).

Related to the above, the question arises whether the quality of service at the Paxel company can affect customer loyalty mediated by customer engagement or not. Researchers are interested in conducting research on Paxel customers with the title "The role of customer engagement in mediating the effect of service quality on customer loyalty".

Literature review

Service quality and customer loyalty

Companies that are committed to quality and consistently provide quality service will enjoy a competitive advantage so that the company can easily foster customer loyalty and foster customer relationships successfully (Fifin Anggraini 2020) in (Harga et al., 2020) Service quality has a positive influence on customer loyalty. In Kristantyo's research (2021) , it is stated that service quality has a positive and significant effect on customer loyalty. When users have positive feelings towards a service, they will tend to continue using it and recommend it to others to engage in online commerce. From the research that has been done, the hypothesis proposed is:

H1 : Service quality positively affects customer loyalty.

Service quality and customer engagement

Good service quality plays an important role in increasing customer engagement. High service quality includes aspects such as reliability, responsiveness, and empathy, all of which can increase overall customer satisfaction and engagement. According to research by (Tejas R. Shah 2023) in (Shah, 2023) , good service quality has a significant and positive effect on customer engagement. From the research that has been done, the hypothesis proposed is:

H2 : Service quality positively affects customer engagement

Customer engagement and customer loyalty

Customer engagement is defined as the level of active participation and interaction of the customer with the company, which includes aspects such as customer motivation, interaction, and recommendation. This engagement is important because it can increase customer loyalty, which is demonstrated through repeat purchases, retention, and customer referrals.

Customer engagement itself is a relatively new perspective in implementing customer relationship management to build loyalty. Opinions from customers can be used as a benchmark for whether the service provided gives a good impression and has an impact on customer engagement, and whether customer engagement affects loyalty (Ratulangi, 2020). According to research conducted by (Rafael Bravo 2023) in (Bravo & Catal, 2023) , a good loyalty program can increase customer engagement behavior. The results showed that loyalty programs increase customer interaction, which positively affects their engagement behavior. This shows that customer engagement has a positive influence on customer loyalty.

H3: customer engagement positively affects customer loyalty

Service Quality And Customer Loyalty Through Customer Engagement

It is imperative for the organization to uphold the high standard of service in order to foster a positive consumer perception of the business. Because it involves the competences of each internal company to clients, service quality will have a favorable impact on firms' corporate environment. The consumer makes the choice about whether the quality they obtain will satisfy their wants and preferences. When the client receives quality that meets or above their expectations, they experience feelings of pride, happiness, and satisfaction when their expectations are met.

Harimurti & Suryani (2019)found that customer engagement (CE) in an offline setting is significantly impacted by service quality from a functional standpoint. When services are well-received by customers, they will refer them to others. Companies that want to keep and grow customer loyalty must enhance the quality of their services.

H4: customer engagement positively affects service quality and customer loyalty

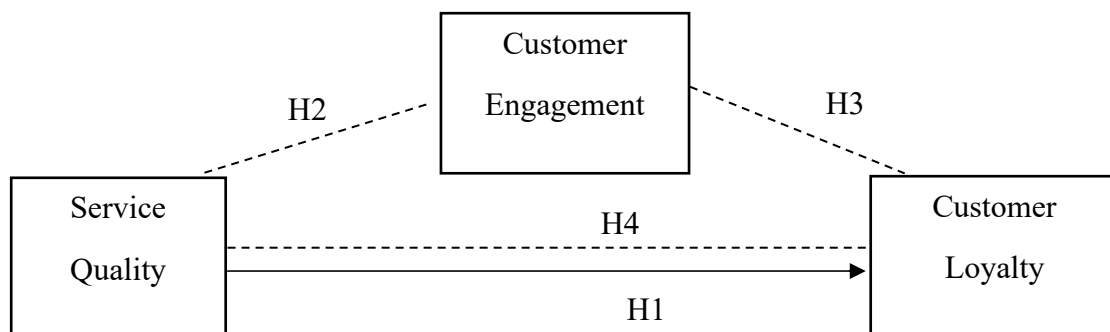


Fig. 1. Research model

METHOD

This type of research is quantitative research by distributing questionnaires via google form. The data was analyzed using Structural Equation Model-Partial Least Square (SEM-PLS 4.0). The population in this study were all customers who had used the delivery services of the Paxel company. The sampling technique used purposive sampling. The criteria for respondents used in this study were (1) at least a high school education and (2) respondents had used Paxel's delivery services. Researchers used 31 indicators to measure three (3) variables. **Total Indicators** = 16 (Service Quality) + 12 (Customer Engagement) + 3 (Loyalty) = 31 indicators. According to Hair (2018), the minimum sample size can be calculated using the rule of thumb: 5-10 times the number of indicators. Using the formula: Sample Size = 5×31 = 155. To obtain a reliable analysis, this study requires 155 respondents. However, data was obtained 190 respondents from the 155 targeted respondents.

Table 2. Indicator list table

Variables	Dimensions	Indicator	Source
Service Quality	Tangible	SQ.1 The delivery men are properly dressed	(Libo-On, 2021)
		SQ.2 The vehicles used by the delivery man are in good condition.	
		SQ.3 Paxel has modern-looking equipment.	
		SQ.4 The application has a good user interface (user friendly).	
		SQ.5 The orders are not damaged when delivered.	
		SQ.6 The delivery is prompt and reliable.	
	Reliability	SQ.7 The delivery's waiting time is short.	
		SQ.8 The delivery man provides their service within the promised time.	
		SQ.9 The delivery man is polite and courteous.	
		SQ.10 I feel safe when making transactions with the delivery man	
		SQ.11 The delivery man is knowledgeable in answering all my concerns.	
	Assurance	SQ.12 The delivery man is trustworthy	
		SQ.13 The delivery man answered my question well enough.	
		SQ.14 The delivery man can be easily contacted.	
		SQ.15 The delivery man gives	

prompt service.
SQ.16 The delivery man has shown willingness to help me

Responsiveness

Customer Engagement	Customer engagement Influential behavior (CIB)	CE.1 I actively discuss this brand on any media CE.2 I love talking about my brand experience	(Parihar & Dawra, 2020)
	Customer engagement referral behavior (CRB)	CE.3 I discuss the benefits that I get from this brand with others CE.4 I am a part of this brand and mention it in my conversations CE.5 I would promote the brand because of the monetary referral benefits provided by the brand CE.6 In addition to the value derived from the product, the monetary referral incentives would also encourage me to refer this brand to my friends and relatives CE.7 I would enjoy referring this brand to my friends and relatives if it would offer the monetary referral incentives. CE.8 Given that I use this brand, I would refer my friends and relatives to this brand if it would offer the monetary referral incentives CE.9 I provide feedback about my experiences with the brand to the firm CE.10 I provide suggestions for improving the performance of the brand CE.11 I provide suggestions/feedbacks about the	

		new product/services of the brand	
		CE.12 I provide feedback/suggestions for developing new products/services for this brand	
	Customer engagement knowledge behavior (CKB)		
Customer Loyalty		CL.1 Next time I need to book, I will book it from this brand	(Parihar & Dawra, 2020)
		CL.2 I intend to keep booking with this brand	
		CL.3 I am committed to this brand	

RESULT AND DISCUSSION

Validity and Reability Test

From the calculation results with the SmartPLS tool, the following results were obtained:

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Table 3. Square Root of AVE and Correlation Between Variabels

Variabels	AVE	Root of AVE
Customer Engagement	0,656	0,809
Customer Loyalty	0,748	0,864
Service Quality	0,640	0,8

Source: Processed Data (SmartPLS 4.0), 2024

It is possible to conclude that this value has good discriminant validity because the square root AVE of all variables has a larger value than the correlation coefficient between constructs and other constructs. Table 3 shows that each variable's validity can be explained by the customer engagement, service quality, and customer loyalty variables because the AVE value is more than 0.50.

Reability Testing

The Cronbach's Alpha coefficient is the reliability test that is most frequently utilized. A Cronbach's Alpha value of at least 0.6 indicates a good reliability test; values below 0.5 indicate low reliability, values between 0.5 and 0.7 indicate medium reliability, values between 0.7 and 0.9 indicate high reliability, and values above 0.9 indicate excellent reliability (Taherdoost, 2018) in (Amalia et al., 2022).

Table 4. Realibility Indicator

Variabels	Composite Realibility	Cronbach's Alpha	Result
Customer Engagement	0,955	0,952	Reliable

Customer Loyalty	0,840	0,832	Reliable
Service Quality	0,963	0,963	Reliable

Source : Processed Data (SmartPLS 4.0), 2024

Validity Testing

The purpose of the validity test is to determine the appropriateness of the study's variables. If a study can produce results that match what is measured, it is considered valid. Stated differently, legitimate research will yield answers to the questions posed by the study. There are two parts to the validity test: factor validity and item validity. When comparing an item's score to its total score, item validity can be observed. The relationship between the factor and the overall factor score is known as factor validity. If more than one factor is present in (Said et al., 2023), this is done (Prastatika, 2020).

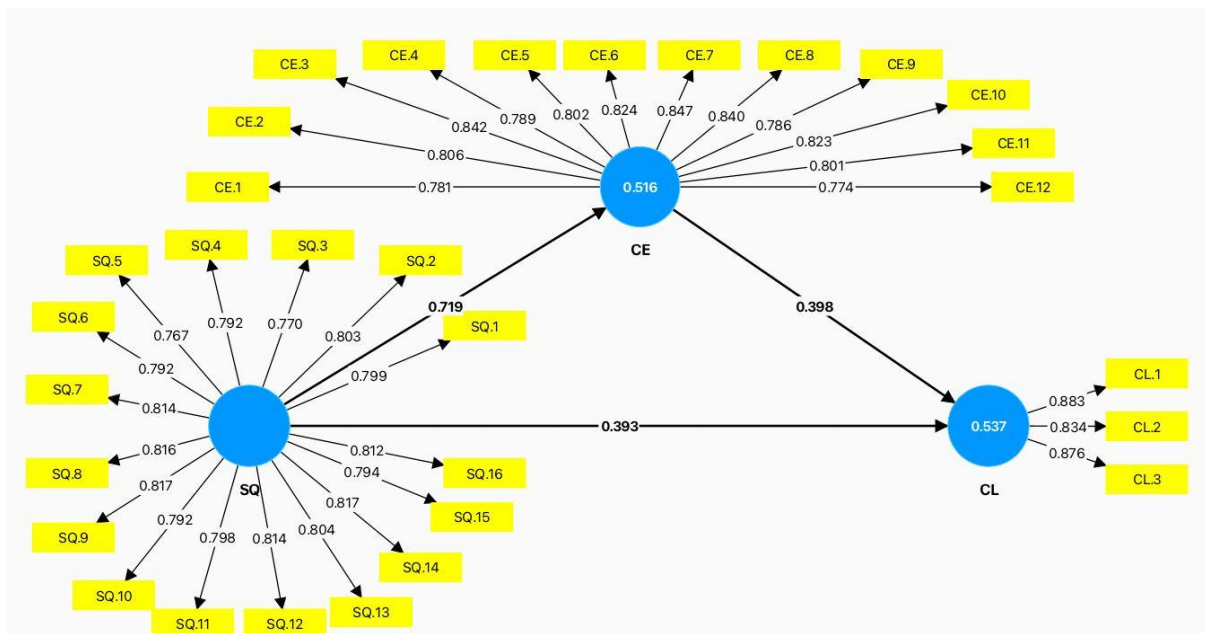


Fig. 2. Framework

The validity test results in the figure above show that the value of each factor has a value of > 0.70, so it can be concluded that it meets the criteria for factor validity.

Discriminant Validity

The validity of the discriminant is indicated by the cross-loading value between the measured construct and the indicator. The correlation between the indicators and the measured construct should be less than the correlation between the indicators and the construct.

	Service Quality	Customer Engagement	Customer Loyalty
CE1	0,505	0,781	0,541
CE 2	0,609	0,806	0,618
CE 3	0,626	0,842	0,619
CE 4	0,519	0,789	0,514
CE 5	0,558	0,802	0,523
CE 6	0,633	0,824	0,581

CE 7	0,694	0,847	0,622
CE 8	0,629	0,840	0,590
CE 9	0,526	0,786	0,475
CE 10	0,574	0,823	0,510
CE 11	0,549	0,801	0,523
CE 12	0,511	0,774	0,445
SQ 1	0,799	0,601	0,512
SQ 2	0,803	0,554	0,502
SQ 3	0,770	0,642	0,597
SQ 4	0,792	0,571	0,540
SQ 5	0,767	0,522	0,482
SQ 6	0,792	0,565	0,471
SQ 7	0,814	0,565	0,532
SQ 8	0,816	0,616	0,610
SQ 9	0,817	0,575	0,537
SQ 10	0,792	0,544	0,580
SQ 11	0,798	0,607	0,556
SQ 12	0,814	0,496	0,498
SQ13	0,804	0,514	0,548
SQ 14	0,817	0,553	0,513
SQ 15	0,794	0,582	0,587
SQ 16	0,812	0,651	0,588
CL 1	0,642	0,580	0,883
CL 2	0,512	0,519	0,834
CL 3	0,598	0,656	0,876

It is clear from the preceding table that the construct has good block-level indication prediction ability. in order for the indicators employed in this research to satisfy the requirements for discriminant validity.

Direct Effect

Table 6 displays the correlation between the factors. T table hypothesis testing is done at a significance level of 5% if T count is more than 1.97. This study employs Smart PLS 4.0 Bootstrapping to test the hypothesis between variables and determine the degree of influence between these variables.

Table 6. Path Coefficient and T-Value

Path	Original Sample (O)	T Statistics	P Values	Result
Customer Engagement→ Customer Loyalty	0,398	4,568	0,000	Significant
Service Quality→ Customer Engagement	0,719	16,465	0,000	Significant

Service Quality→ Customer Loyalty	0,393	4,597	0,000	Significant
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Source : Processed Data (SmartPLS 4.0), 2024

Table 6 shows that statistical findings for Customer Engagement and Customer Loyalty are $4.568 > 1.97$. The correlation coefficient, which measures this, is 0.398. Customer engagement is impacted by service quality, as demonstrated by the findings of $16.465 > 1.97$. According to these findings, service quality (as indicated by a correlation coefficient of 0.719) directly influences customer involvement. Customer loyalty is positively impacted by service quality, with a computed $4.597 > 1.97$ and an initial sample size of 0.393.

Indirect Effect

Table 6. Path Coefficient and T-Value

Path	Original Sample (O)	T Statistics	P Values	Result
Service Quality Customer Engagement→ Customer Loyalty	0,331	4,038	0,000	Significant

Source : Processed Data (SmartPLS 4.0), 2024

Based on this data, we can conclude that:

Service quality contributes positively to customer engagement. Customer engagement serves as a mediator that strengthens the relationship between service quality and customer loyalty. With a fairly high original sample of 0.331, then a T-statistic value of 4.038 and P-values that show significance, we can be sure that improving service quality can increase customer loyalty through increasing their engagement.

CONCLUSION

This study highlights the crucial role of customer engagement in mediating the relationship between service quality and customer loyalty in Paxel’s courier services. The findings reveal that service quality has a direct positive effect on customer loyalty, demonstrating that when customers perceive high-quality service—such as promptness, reliability, and courteousness—they are more likely to remain loyal to the brand.

Moreover, the study emphasizes the importance of customer engagement as a mediating factor. Customers who actively engage with the brand, through sharing feedback or promoting the service to others, tend to show even higher levels of loyalty. This reinforces the idea that beyond providing excellent service, companies must also focus on fostering deeper interactions with their customers to strengthen loyalty.

In summary, the research underscores the dual importance of service quality and customer engagement in driving customer loyalty. By focusing on both, Paxel can improve customer retention and build stronger, long-lasting relationships, which are essential for standing out in the competitive courier services market. This conclusion provides valuable insights for practitioners and sets the foundation for future studies to explore how these factors evolve over time.

Implications

To develop the practical and theoretical implications for our research, we must look at the smallest and largest values in each construct: service quality, customer engagement, and customer loyalty, based on the findings from our SmartPLS analysis.

Service Quality

The highest-rated indicator, "The delivery man is polite and courteous" (SQ9), highlights that customers appreciate the personal qualities of Paxel’s couriers. Paxel should

continue to prioritize the training of its staff in soft skills like politeness and professionalism, as these aspects significantly contribute to customer satisfaction. Another highly-rated indicator, "The delivery man can be easily contacted" (SQ14), suggests that customers value accessibility and clear communication with the delivery personnel. Paxel should invest in maintaining or improving its communication systems to ensure couriers remain reachable, potentially through app enhancements. On the lower end, "The orders are not damaged when delivered" (SQ5) received the lowest score, pointing to concerns over package safety. Paxel should focus on improving its package handling processes to minimize damage during delivery, ensuring a more reliable service. These findings suggest that while customer interaction (politeness, accessibility) strongly influences perceived service quality, operational factors like product safety remain critical to overall service satisfaction.

Customer Engagement

The highest-rated indicator, "I would enjoy referring this brand to my friends and relatives if it would offer the monetary referral incentives" (CE7), reflects that customers are motivated by financial incentives to promote the brand. Paxel should implement or strengthen a referral program offering monetary rewards or discounts to encourage customers to refer the service to others, influence their existing customer base for growth. The lowest-rated indicator, "I provide feedback/suggestions for developing new products/services for this brand" (CE12), shows that customers are less likely to engage by providing constructive feedback. Paxel should create more opportunities for customers to provide feedback, such as regular surveys, suggestion forms, or interactive platforms that make it easier for users to contribute ideas. The data suggests that while engagement through incentivized referrals is effective, there is a gap in active customer involvement in product or service development. Future research could explore the role of customer participation in shaping services and how it impacts long-term engagement.

Customer loyalty

The highest-rated indicator, "Next time I need to book, I will book it from this brand" (CL1), indicating a high level of immediate loyalty among customers. Paxel should capitalize on this by offering loyalty programs, special deals, or rewards to ensure customers continue to choose their service over competitors. The lowest-rated indicator, "I intend to keep booking with this brand" (CL2), indicates uncertainty among some customers about long-term loyalty. Paxel should investigate what factors are causing hesitation, such as pricing, service consistency, or competitor offerings, and address these issues through personalized services, retention strategies, or improved user experiences. The findings suggest a difference between short-term satisfaction and long-term loyalty. This can serve as a basis for future studies to explore what specific factors influence a customer's intention to stay loyal over time, especially in competitive service industries.

Research limitations

While this study provides valuable contributions to understanding the relationship between service quality, customer engagement, and loyalty, several limitations must be acknowledged. Firstly, the research is confined to a specific industry, which may limit the generalizability of the findings across different sectors. The study's sample size, although adequate for the analysis, could be expanded in future research to include a more diverse range of respondents.

Another limitation lies in the cross-sectional design of the study, which captures a snapshot of the variables at a single point in time. Future research could adopt a longitudinal approach to observe how these relationships evolve over time. Additionally, the study primarily relies on self-reported data, which may be subject to biases such as social

desirability or inaccurate recall. To mitigate these limitations, future studies could incorporate a mixed-methods approach, combining quantitative surveys with qualitative interviews or observations to provide a more comprehensive understanding of the dynamics between service quality, customer engagement, and loyalty.

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