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Analysis of Service Quality on Customer Satisfaction and Loyalty at Pertamina Gas Stations (A Study at SPBU 34-15405 Ciputat)

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Abstract. This study examines the influence of service quality on customer satisfaction and customer loyalty at a Pertamina gas station (34-15405) in Ciputat. Using a quantitative approach, data were collected from 30 respondents through a structured questionnaire and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). All measurement indicators demonstrated strong validity and reliability, with outer loadings above 0.70 and satisfactory values of Cronbach's Alpha, Composite Reliability, and Average Variance Extracted. The structural model shows that service quality has a significant positive effect on customer satisfaction ($\beta = 0.804$; $p < 0.001$) and customer loyalty ($\beta = 0.686$; $p < 0.001$). The model explains 64.6% of the variance in customer satisfaction and 47.0% in customer loyalty. These findings indicate that consistent operational performance, transaction accuracy, clarity of information, and staff responsiveness are key drivers of customer satisfaction, which subsequently contributes to loyalty formation. However, customer loyalty still appears to be influenced by external factors such as location convenience and competing promotions. The study concludes that enhancing service quality remains crucial for strengthening customer satisfaction and establishing sustainable customer loyalty in the fuel retail service sector.

Keywords: Service Quality, Customer Satisfaction, Customer Loyalty, Pertamina Gas Station.

INTRODUCTION

In an era of increasingly intense business competition, both public and private service sectors are required to continuously improve service quality in order to retain customers and expand market share. In the context of energy services such as gas stations (SPBU), service quality becomes a crucial element because it is directly related to customer experience at the primary point of interaction between consumers and service providers (Riseetyawan & Sularto, 2022). A gas station is not merely a place to purchase fuel; it forms part of the customer journey that demands speed, safety, reliability, and convenience.

Theoretically, service quality is defined as the extent to which the services received by customers meet or exceed their expectations (Hidayat, Rasyid & Pasolo, 2024). Service quality encompasses various dimensions—reliability, responsiveness, assurance, empathy, and tangibles—as widely adopted in the SERVQUAL model (Samosir, 2023). Each dimension plays an essential role in shaping customer perceptions of the professionalism and credibility of a service provider.

In the SPBU industry, prior studies have shown that service quality has a direct and significant influence on customer satisfaction. For example, research conducted in Bekasi found that consistency of service, transaction accuracy, and staff responsiveness significantly contribute to increased customer satisfaction. Similarly, research in Banda Aceh revealed that perceived retail service quality directly affects customer loyalty, with customer satisfaction acting as a mediator that strengthens the relationship between service quality and loyalty. These findings

reinforce the notion that customer satisfaction—which occurs when perceived service performance meets or exceeds expectations (Dudziak, Stoma & Zajac, 2022)—is a critical factor in shaping long-term loyalty. Customer loyalty itself is understood as the tendency of customers to continue using the same service and recommend it to others (Hidayat et al., 2024).

Although numerous studies have examined service quality in the SPBU sector, research focusing on specific locations with differing customer characteristics remains important. Each gas station has its own service context, influenced by location, customer profile, supporting facilities, and patterns of customer visits. In this regard, the study at SPBU 34-15405 Ciputat is significant because its customer base is dominated by frequent users of private vehicles with relatively high visit frequencies. A mini survey of 30 customers at this SPBU shows that most respondents have been long-term customers, prefer higher-quality fuel such as Pertamax, and possess high expectations for service performance, both in terms of speed, safety, and facility comfort.

Therefore, this study aims to analyze the influence of service quality on customer satisfaction and loyalty at Pertamina gas stations, with a focused examination of SPBU 34-15405 Ciputat. This study provides three main contributions. First, it summarizes and analyzes recent research findings on the relationship between service quality, satisfaction, and loyalty in the SPBU sector. Second, it incorporates a mini survey of customers at the Ciputat station to provide empirical insights into their perceptions of the services received. Third, it formulates managerial recommendations that can be directly implemented by the management of SPBU 34-15405 Ciputat to improve service quality and strengthen customer loyalty.

Thus, this study offers both theoretical contributions through the integration of literature and survey findings, as well as practical insights for SPBU managers to support continuous improvement in service performance.

LITERATURE REVIEW

Service Quality

Service quality in retail and service contexts is commonly built upon the SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, and empathy—which remain relevant in contemporary studies as they effectively capture customer perceptions of both service processes and physical evidence. In the context of retail service environments such as gas stations, the Retail Service Quality Scale (RSQS) is also widely applied, consisting of five dimensions: physical aspects, reliability, personal interaction, problem solving, and policy. RSQS places greater emphasis on front-end retail experience, including complaint handling and operational policy.

Operational indicators frequently used to measure service quality in modern retail and gas station settings include:

- Tangibles/Physical aspects: cleanliness of pump areas and toilets, neatness of staff uniforms, clarity of signage and pricing, and completeness of supporting facilities.
- Reliability: accuracy of fuel dispensing and transactions, availability of fuel types, and consistency of operating hours.
- Responsiveness/Personal interaction: queue speed, staff attentiveness, and ease of requesting additional assistance (e.g., basic tire pressure checks).
- Assurance/Policy: sense of safety during transactions, staff competence, transparency of pricing and promotional policies, and guarantees for complaint-handling processes.
- Empathy/Problem solving: friendliness, attention to customers' specific needs, and the effectiveness of on-site complaint resolution.

Research on gas stations in Indonesia consistently shows that higher service quality improves customer evaluations, making these measures highly relevant to the Pertamina SPBU context.

Customer Satisfaction

Customer satisfaction is defined as an affective–cognitive evaluation occurring when service performance meets or exceeds expectations. The construct is widely recognized as a key mediator between service quality and post-purchase behavior. In the context of retail fuel services,

commonly used indicators of satisfaction include satisfaction with core processes (speed and accuracy of fuel dispensing), interactions with staff, the condition of facilities, perceived value for price, and overall satisfaction with the latest visit.

Studies at SPBU COCO Medan, for instance, found that service quality has a significant effect on customer satisfaction, which in turn is closely linked to loyalty—affirming the central role of satisfaction within the service quality–loyalty framework.

Customer Loyalty

Customer loyalty is understood as a deep commitment to repurchase and to recommend a brand or service provider, reflected through repeat behaviors and resistance to switching. In contemporary consumer behavior research, common indicators of loyalty include repurchase intention, willingness to recommend (word-of-mouth/advocacy), preference to make the service a primary choice, and willingness to stay despite the availability of alternatives.

Empirical evidence across categories reinforces that high levels of satisfaction enhance the intention to repurchase and the likelihood of providing recommendations, thereby strengthening long-term loyalty.

Relationships Among Constructs (Service Quality → Satisfaction → Loyalty)

A synthesis of recent studies on retail services and SPBU operations in Indonesia demonstrates a consistent causal pathway: superior service quality increases customer satisfaction, and satisfaction subsequently drives loyalty through repeat purchase intentions and recommendations. Models based on SERVQUAL and RSQS provide a robust foundation for evaluating service quality in gas stations, which can then be empirically tested for their relationships with satisfaction and loyalty among local customer populations.

RESEARCH METHODS

This study employs a quantitative approach using a survey method to analyze the influence of Service Quality on Customer Satisfaction and Customer Loyalty at the Pertamina gas station in Ciputat. This approach was chosen because it enables the researcher to obtain empirical insights into the relationships among variables through numerical measurement and statistical analysis. Data were collected using a structured questionnaire containing variable indicators derived from service quality theory as well as conceptual models of customer satisfaction and loyalty.

The research sample consisted of 30 respondents selected using a non-probability sampling method with a purposive sampling technique. Respondents were individuals who had previously refueled at the Pertamina Ciputat gas station and were willing to complete the questionnaire. This sample size is considered adequate for analysis using Partial Least Squares (PLS), particularly in exploratory research involving reflective constructs and models of moderate complexity.

The research instrument comprises three variables: Service Quality, Customer Satisfaction, and Customer Loyalty. Each variable was measured using several indicators assessed with a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Prior to conducting structural analysis, the instrument's validity and reliability were tested using outer loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE).

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). This model was selected due to its ability to handle relatively small sample sizes and its flexibility regarding non-normal data distributions. The analysis was carried out in two stages: (1) evaluation of the measurement model to ensure indicator validity and reliability, and (2) evaluation of the structural model to examine the relationships among variables through path coefficients, R-square values, t-statistics, and p-values. Hypothesis testing was performed using the bootstrapping technique to obtain the significance levels of the structural relationships.

Through this methodological approach, the study aims to provide empirical evidence regarding the role of service quality in enhancing customer satisfaction and customer loyalty at the Pertamina Ciputat gas station, with an adequate level of rigor that aligns with quantitative SEM-based research standards.

RESULTS AND DISCUSSION

The results of the analysis using Partial Least Squares (PLS) on data collected from 30 consumers of the Pertamina Ciputat gas station indicate that the overall research instrument demonstrates excellent measurement quality. All indicators for the variables Service Quality, Customer Satisfaction, and Customer Loyalty showed outer loading values above 0.70, indicating strong convergent validity. In addition, all constructs exhibited Cronbach's Alpha and Composite Reliability values exceeding 0.70, along with AVE values above 0.50, confirming that the instrument is reliable and consistently measures the intended variables. The details are presented below:

Variabel	Cronbach's Alpha	CR	AVE
Service Quality	0,954	0,959	0,626
Customer Satisfaction	0,896	0,928	0,764
Customer Loyalty	0,928	0,949	0,822

These results indicate that the research instrument is reliable and consistent in measuring the constructs under study.

Evaluation of the structural model further shows that service quality plays a significant role in shaping customer perceptions. The R-square value for Customer Satisfaction, amounting to 0.646, indicates that 64.6% of the variation in satisfaction can be explained by the service quality provided by the gas station. Meanwhile, the R-square value for Customer Loyalty, at 0.470, demonstrates that service quality contributes substantially to explaining loyalty, although other variables may still influence customer loyalty.

Hypothesis testing reveals that Service Quality has a positive and significant effect on Customer Satisfaction, with a path coefficient of 0.804 and a t-value of 10,890 ($p < 0.001$). This finding confirms that aspects of service quality—such as clarity of price information, accuracy of fuel dispensing, transaction safety, and staff responsiveness—are critical determinants of customer satisfaction. When core service processes and operational performance are delivered consistently and reliably, customers tend to feel more satisfied with their experience.

Furthermore, service quality is also shown to have a positive and significant effect on Customer Loyalty, with a path coefficient of 0.686 and a t-value of 7,628 ($p < 0.001$). This indicates that customers who receive high-quality service from the gas station are more likely to exhibit loyal behaviors, such as making repeat visits and recommending the station to others. However, the lower R-square value for loyalty suggests that customer loyalty may also be influenced by external factors, such as the station's location, route preferences, fuel prices, or promotions offered by competing gas stations. As a result, the loyalty observed here can be characterized as "conditional loyalty."

Overall, these findings reinforce conceptual models within service marketing that position service quality as a primary determinant of customer satisfaction, which subsequently contributes to loyalty. Thus, improving service quality not only has a direct impact on customer satisfaction but also serves as a foundational strategy for building long-term customer loyalty within the context of SPBU service operations.

CONCLUSION AND RECOMMENDATION

Conclusion

Based on the analysis using Partial Least Squares (PLS) on data collected from 30 consumers of the Pertamina Ciputat gas station, this study concludes that service quality plays a highly significant role in shaping both customer satisfaction and customer loyalty. All construct indicators were found to be valid and reliable, demonstrating that the research instrument consistently and accurately measures the intended variables.

The structural model shows that Service Quality has a positive and significant effect on

Customer Satisfaction, with a path coefficient of 0.804 and a high level of statistical significance. This finding highlights that service elements such as clear price information, transaction safety, accuracy of fuel dispensing, and staff responsiveness directly contribute to increasing customer satisfaction at the gas station. When core service delivery and operational processes are performed consistently and reliably, customers tend to express higher levels of satisfaction.

Furthermore, Service Quality also has a positive and significant impact on Customer Loyalty, with a path coefficient of 0.686. This indicates that high-quality service not only enhances satisfaction but also encourages customers to continue using the gas station and to recommend it to others. However, the lower R-square value for loyalty suggests that customer loyalty may also be influenced by external factors such as location, travel route habits, and promotional offers from competing gas stations. Thus, the loyalty observed in this study reflects a form of "conditional loyalty."

Overall, this study reinforces theoretical models in service marketing that position service quality as a fundamental driver of both satisfaction and loyalty. In the context of the Pertamina Ciputat gas station, high service quality has delivered a significant impact, although further improvements are still needed to strengthen customer loyalty in a more sustainable manner.

Recommendation

Based on the findings, several practical recommendations can be offered as strategies to enhance service performance and increase customer loyalty:

- Enhance service efficiency and reduce waiting time.
The gas station is advised to increase staff deployment during peak hours and organize queue flows more systematically. Clearer queue markings and regular monitoring of customer traffic can help accelerate services and reduce potential congestion.
- Improve and maintain supporting facilities.
Facilities such as toilets and prayer rooms are critical components of the customer experience. Regular cleaning, better lighting, and additional comfort amenities are necessary to ensure a pleasant environment for customers.
- Strengthen the quality of customer complaint handling.
The gas station can provide dedicated channels for complaints, such as digital forms, suggestion books, or customer service contact numbers. Establishing clear response-time standards and training staff to handle complaints professionally will help resolve issues more efficiently and increase customer satisfaction.
- Encourage proactive and customer-oriented service.
Staff are expected to deliver more human-centered service, such as offering additional assistance or providing guidance when needed. Friendly and proactive interactions can greatly enhance customer experience and contribute to higher loyalty.
- Develop attractive and consistent loyalty programs.
Given that customer loyalty remains sensitive to promotions and location, the gas station should develop loyalty programs based on points, vouchers, or repeat-purchase incentives. Integration with platforms such as the MyPertamina app can also provide exclusive offers and strengthen customer engagement.
- Optimize communication of service information to customers.
The gas station should improve clarity of information related to fuel pricing, operational standards, and service certifications through information boards or digital signage. Such transparency helps build customer trust and reinforces the perceived quality of the service.

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