

Impact of Service Quality on Customer Satisfaction and Loyalty in Indonesia's Water Providers: Literature Review

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Abstract

This literature review explores the influence of service quality on customer satisfaction and loyalty in clean water service providers, with a specific focus on the challenges faced by such providers in Indonesia. Service quality, which includes dimensions such as tangibles, reliability, responsiveness, assurance, and empathy, plays a crucial role in determining customer satisfaction and loyalty. The study analyzes previous research to highlight the impact of these dimensions on customer perceptions and loyalty. It also identifies challenges faced by clean water service providers, including issues such as uneven water distribution, pipe leaks, inaccuracies in water meter readings, and delays in responding to customer complaints. The review emphasizes the importance of improving service quality through employee training, enhancing transparency, and utilizing technology to better serve customers. The findings of this review provide recommendations for clean water service providers to improve service quality, ultimately increasing customer satisfaction and loyalty.

Keyword : *Service Quality, Loyalty, Water Service Providers*

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1. Introduction

Water is one of the essential basic needs for the survival of humans and other living beings. Without sufficient and good-quality water, humans will face difficulties in carrying out daily activities (Zendrato). Therefore, the management and provision of clean water must be carried out properly to ensure it is used effectively and efficiently. The government, through various state-owned enterprises, plays a crucial role in providing and managing clean water for the public. In accordance with the mandate of the 1945 Constitution, Article 33, Paragraph 3, the management of natural resources, including water, must be conducted by the state for the greatest welfare of the people (Pradhyksa).

Clean water that meets health standards, whether in terms of physical, chemical, microbiological, or radioactive aspects, is crucial for reducing the risk of diseases that can be transmitted through water (rawung). Therefore, the quality of water provided by clean water service providers must be maintained to meet the needs of the community optimally. Along with the growth of the population and the development of

infrastructure, the demand for clean water is increasing, making the challenges for clean water service providers more complex.

As a Badan Usaha Milik Daerah (BUMD), clean water service providers have a significant responsibility in supplying, managing, and developing clean water distribution systems that meet health standards (mutaali). In addition, clean water service providers must also contribute to regional development, create job opportunities, and generate profits that can be used for further development. To meet these demands, clean water service providers must continually improve service quality and operational efficiency in order to satisfy customers.

Although clean water service providers have made efforts to improve their services, there are still several customer complaints related to various aspects of the service, such as water pressure, water quality, pipe leaks, and issues with water meters. These complaints indicate the need for further improvements in the water management and distribution systems. Therefore, it is important to conduct a literature review on clean water management, as well as the factors

that influence customer satisfaction in clean water services.

2. Theoretical Framework

Service Quality

Service quality refers to the extent to which a service provider can meet or even exceed customer expectations. Service quality consists of five key elements, namely: Tangibles, Reliability, Responsiveness, Assurance, and Empathy (Zeithaml). These five elements are crucial for creating customer satisfaction and building their loyalty towards the service provider.

Customer Satisfaction

Customer satisfaction is how customers feel about the service they receive, by comparing their expectations with the reality they experience after using the service (Oliver). Customer satisfaction can be measured based on how well the service received meets or even exceeds customer expectations. If customers are satisfied, they are more likely to remain loyal and continue using the service in the future, which is referred to as customer loyalty.

Table 1. Previous Research

Researcher	Title	Result
Intan Rurieta Anggarawati	Pengaruh Kualitas Produk, Kualitas Pelayanan dan Kepuasan Pelanggan Terhadap Loyalitas Pelanggan PDAM Tirta Marta Yogyakarta	the influence of product quality, service quality, and customer satisfaction on customer loyalty at PDAM Tirtamarta Yogyakarta. The results of multiple linear regression analysis show that these three variables have a significant effect on customer loyalty. Product quality, service quality, and customer satisfaction all have a positive impact on loyalty, meaning that the better the product quality, service, and customer satisfaction, the higher the loyalty formed. Overall, these three variables contribute 53.9% to customer loyalty.
Andi Riyanto	Implikasi Kualitas Pelayanan Dalam Meningkatkan Kepuasan Pelanggan Pada PDAM Cibadak Sukabumi	The research results show that the service quality of PDAM Cibadak is significantly related to customer satisfaction. Several aspects, such as the appearance of the staff, the service location, and the friendliness of the staff, received positive evaluations. However, other aspects, such as service speed and the accuracy of billing reports, are still considered inadequate. Overall, although there are areas that need improvement, most customers are satisfied with the service provided. To improve service quality, PDAM needs to address the aspects that are still rated poorly. continuously improve product quality, service, and customer satisfaction to enhance
Ni Nyoman Yuliarmi dan Putu Riyasa	Analisis Faktor-Faktor Yang Mempengaruhi Kepuasan Pelanggan Terhadap Pelayanan PDAM Kota Denpasar	Customer satisfaction with PDAM (Regional Water Supply Company) of Denpasar City varies across several service aspects. The continuity of water supply and the speed of complaint handling received low satisfaction levels, while the meter reading service showed moderate satisfaction, and payment location received high satisfaction. Overall, service quality factors such as reliability, responsiveness, assurance, empathy, and tangibility simultaneously have a significant impact on customer satisfaction. On a partial

Researcher	Title	Result
		basis, the factors of responsiveness, assurance, empathy, and tangibility positively influence customer satisfaction, while reliability does not show a significant effect.
Andi Bau Salman, Andi Jamaluddin, Andi Bakti, Rama	Pengaruh Distribusi Air Bersih Terhadap Kepuasan Pelanggan Di Perusahaan Umum Daerah (Perumda) Air Minum Tirta Danau Tempe Kabupaten Wajo	Perumda Air Minum Tirta Danau Tempe SPAM IKK Tempe is known for its quick and responsive service, offering good management with transparency and openness to customer feedback. This enhances trust in service quality and staff. Community involvement in employee recruitment strengthens the relationship between the company and residents, improving communication regarding water services. Friendly, efficient, and polite staff foster respect from the community. Factors like water quality, affordable pricing, and delivery time impact customer satisfaction. Accessible locations and service offices also contribute to customer comfort. Quick and professional responses from staff, along with modern payment technologies like apps and bank partnerships, further enhance convenience. Adequate operational facilities ensure timely water supply, boosting customer satisfaction.
Achmad Suryana Hidayat, Muhamad Isnaini	Pengaruh Komunikasi Persuasif kualitas pelayanan contact center terhadap Tingkat kepuasan pelanggan (survei pada pelanggan perumdam Tirta Kerta Raharja Kabupaten Tangerang)	A study on the impact of persuasive communication in contact center service quality on customer satisfaction at PERUMDAM Tirta Kerta Raharja, Tangerang Regency, found that service quality is rated as fairly good based on the dimensions of tangible, reliability, responsiveness, assurance, and empathy. Customer satisfaction, particularly from households in Teluk Naga District, is also generally good. However, while 56.4% of customers are satisfied, 43.6% feel that contact center service quality has not significantly affected their satisfaction, due to factors like high costs, doubts, and competition from other services with more attractive prices or promotions. The variables were measured using the dimensions of desire expectation and adequate expectation.
Novida Angraini	Pengaruh kualitas pelayanan air bersih terhadap kepuasan pelanggan pada perusahaan daerah air minum (PDAM) Tirta Benteng Kota Tangerang	Service quality has a positive impact on customer satisfaction at PDAM Tirta Benteng, Tangerang City. Regression analysis shows that a 1-point increase in service quality can raise customer satisfaction by 0.569. The correlation between service quality and customer satisfaction is 0.569, explaining 56.9% of customer satisfaction variation, with 43.1% influenced by other factors. Hypothesis testing (t-test) with a t-value of 7.331 and a t-table of 1.676 indicates a significant effect of service quality on customer satisfaction. These results

		support the service quality theory by Zeithaml and Parasuraman and the customer satisfaction theory by Irawan, though further improvements in service quality are needed for more significant increases in customer satisfaction.
Researcher	Title	Result
Mailana Ulfa Riri Mayliza	Pengaruh kualitas pelayanan dan kepuasan pelanggan terhadap loyalitas pelanggan PDAM Kota Padang	The study shows that the variables of tangible, responsiveness, empathy, and customer satisfaction have a positive and significant impact on customer loyalty at PDAM Kota Padang, while reliability and assurance do not have a significant effect. To improve customer loyalty, PDAM Kota Padang should ensure that customers feel valued and their complaints are addressed effectively. It is recommended that PDAM provide training to employees on appearance, courtesy, friendliness, and service speed to deliver optimal service and enhance customer loyalty.
Researcher	Title	Result
Herri Affandi, Muhammad Zaki, dan Azmeri	Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Pada Perusahaan Daerah Air Minum (PDAM) Tirta Mon Pase Kabupaten Aceh Utara	The most influential service quality factor on customer satisfaction at PDAM Tirta Mon Pase is sincerity. Other factors that also partially affect customer satisfaction include trustworthiness, responsiveness, and sincerity. Simultaneously, all service quality factors—tangible service, trustworthiness, responsiveness, assurance, and sincerity—impact customer satisfaction. The relationship between tangible service, trustworthiness, and assurance with customer satisfaction is strong, while responsiveness and sincerity have a very strong relationship with customer satisfaction.
Researcher	Title	Result
Muhammad Rezha Pahlawan, Abdul Rahman Laba, Erlina Pakki, Hardiyono, dan Nurlia	Pengaruh Kualitas Produk dan Kualitas Pelayanan Terhadap Peningkatan Kepuasan dan Loyalitas Pelanggan Perusahaan Daerah Air Minum (PDAM) Kota Makassar	Based on the responses from customers of PDAM 100 Makassar, it was concluded that product quality has a significant positive effect on customer satisfaction and loyalty, both directly and through customer satisfaction as a mediator. Service quality also positively affects customer satisfaction, although it has no significant direct impact on customer loyalty. However, service quality does have a significant positive effect on loyalty when mediated by customer satisfaction. Customer satisfaction has a significant positive effect on customer loyalty at PDAM Makassar.
Researcher	Title	Result
Rahmatullah	Analisis Mutu Pelayanan Jasa Terhadap Kepuasan Pelanggan Pada Jasa PDAM Tirta Kerta Raharja Kabupaten Tangerang	A study on improving service quality and customer satisfaction at PDAM Tirta Kerta Raharja in Tangerang Regency concluded that the organization aims to fulfill public clean water needs, develop service systems, and generate revenue for regional development. The services provided include new connections, water distribution, name changes, tariff adjustments,

subscription cancellations, bill printing, and complaint handling. The analysis found no significant impact between tangible evidence and customer satisfaction, with a chi-square value (X^2) of 19.310, which is lower than the critical value (X^2_{α} table) of 31.410, indicating that tangible evidence does not affect customer satisfaction at a 5% error risk.

Sumber: Data Diolah Oleh Penulis, 2025

3. Methods

This study uses a literature review approach to analyze the impact of service quality on customer satisfaction and loyalty in clean water service providers, particularly PDAMs in Indonesia. The research is qualitative, analyzing relevant findings from previous studies. The primary data is obtained from articles, scientific journals, and research reports collected from journal databases and university repositories. A thematic analysis is conducted to identify key themes such as service quality, customer satisfaction, loyalty, and challenges faced by service providers. The research focuses on the impact of service quality dimensions on customer satisfaction and loyalty, as well as strategies to improve both. The expected results are to contribute to the development of service quality theory and provide practical recommendations for clean water service providers

4. Result and Discussion

This literature review explores the impact of service quality on customer satisfaction and loyalty in Indonesia's clean water service providers, with a particular focus on PDAMs (Perusahaan Daerah Air Minum). The review highlights several key findings regarding the dimensions of service quality and their effects on customer perceptions, satisfaction, and loyalty.

Dimensions of Service Quality

The service quality framework used in this study is based on five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Each of these dimensions plays a crucial role in shaping customer satisfaction and loyalty.

1. Tangibles

Physical facilities, equipment, and personnel appearance were found to be important factors influencing customer satisfaction. Customers associate clean, well-maintained infrastructure and professional staff with high service quality. However, studies also highlight that while tangible aspects are important, they do not always correlate strongly with customer loyalty, as long as basic service standards are met.

2. Reliability

Consistent and dependable service delivery is one of the most significant factors impacting customer satisfaction. Water service providers that reliably supply water without interruptions, and maintain water quality standards, foster greater customer trust and loyalty. However, many Indonesian PDAMs struggle with inconsistent service, such as water shortages and poor pressure, which negatively impacts customer satisfaction.

3. Responsiveness

The ability of service providers to respond promptly to customer issues, including addressing complaints and solving problems, is critical for maintaining customer satisfaction. A significant number of complaints related to water meter inaccuracies and delayed response times have been noted in previous research. The review identifies that providers must improve their responsiveness to complaints and inquiries to enhance customer trust and loyalty.

4. Assurance

Assurance encompasses the knowledge and courtesy of employees, as well as their ability to instill confidence in customers. The literature suggests that training programs focused on improving the professionalism and customer service skills of employees can lead to an increase in customer satisfaction, particularly in handling customer concerns effectively.

5. Empathy

Providing personalized attention and understanding the specific needs of customers helps build emotional connections and foster loyalty. In Indonesian PDAMs, the absence of a customer-centric approach often leads to dissatisfaction. Empathy, particularly in dealing with customer complaints and ensuring customers feel valued, is a vital area for improvement.

Challenges Faced by Clean Water Service Providers

Several challenges hinder the delivery of high-quality service by clean water providers in Indonesia. In Indonesia, clean water service providers face several challenges that affect service quality, including uneven water distribution, which leads to inconsistent supply

and pressure, and aging infrastructure causing frequent pipe leaks and water wastage. These issues, along with inaccurate water meter readings that result in billing disputes, contribute to customer dissatisfaction. Additionally, delays in handling complaints, particularly regarding service disruptions or quality concerns, further undermine customer trust and loyalty. Addressing these problems is essential for improving service reliability and maintaining customer satisfaction.

Impact on Customer Satisfaction and Loyalty

The relationship between service quality, customer satisfaction, and loyalty is well-documented in the literature. High service quality generally leads to increased customer satisfaction, which in turn enhances customer loyalty. However, the findings also indicate that while satisfaction is a significant predictor of loyalty, factors such as trust, reliability, and perceived value also play an important role. Water service providers must not only focus on providing basic services but also ensure that customers feel valued and confident in the service they receive.

5. Conclusion

The literature review demonstrates that service quality is a critical factor in shaping customer satisfaction and loyalty in Indonesia's clean water providers, particularly PDAMs. Despite efforts to improve service delivery, several challenges remain, including infrastructure issues, inaccurate billing, and slow response times. To address these challenges, clean water providers must invest in staff training, technological innovations, and infrastructure improvements. By improving these areas, PDAMs can enhance service quality, resulting in higher customer satisfaction and greater customer loyalty. The findings of this review provide valuable insights for clean water service providers in Indonesia to optimize their operations and meet customer expectations more effectively.

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