

**EVALUATING SERVICE QUALITY AT PDAM TIRTA
KENCANA SAMARINDA USING THE SERVQUAL MODEL**



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INTERNATIONAL UNDERGRADUATE PROGRAM IN MANAGEMENT

FACULTY OF BUSINESS AND ECONOMICS

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EVALUATING SERVICE QUALITY AT PDAM TIRTA KENCANA SAMARINDA USING THE SERVQUAL MODEL

Internship Final Report

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ADVISORS` APPROVAL

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Bismillahirrahmanirrahim,

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DECLARATION OF AUTHENTICITY

I declare the originality of this thesis, which was made by the author themselves. I do not use anyone else's work, words, expressions, or ideas without acknowledgment. I declare that all of the data, ideas, words, and writing were obtained by the author themselves.

If this statement is false in the future, I am willing to accept any sanction complying with the determined regulation or its consequences.

Yogyakarta, Tuesday, 05, May, 2026



Muhammad Luthfi Azhar

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Yogyakarta, 19 May 2026

Muhammad Luthfi Azhar

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ABSTRACT

This study evaluates the service quality of PDAM Tirta Kencana Samarinda based on customer perceptions using the SERVQUAL model. A qualitative approach was employed through in-depth interviews with five informants comprising internal and external stakeholders, analyzed using thematic analysis across five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The findings indicate that tangibles and reliability represent the most critical areas of weakness, marked by limited infrastructure and inconsistent service completion times. Responsiveness shows an uneven pattern, with strong initial responses but weak follow-up communication. Assurance is supported by existing service recovery policies, though their scope remains limited. Empathy emerges as the strongest dimension, with customers consistently reporting positive staff interactions. Drawing on Expectation–Disconfirmation Theory, Customer Expectation Theory, and Perceived Service Quality frameworks, this study concludes that the gap between customer expectations and actual service performance is the primary driver of dissatisfaction. Practical recommendations are proposed, including infrastructure investment, proactive communication systems, and standardized service recovery policies to improve overall service quality at PDAM Tirta Kencana Samarinda.

Keywords: *Service Quality, SERVQUAL, Customer Expectation, Perceived Service Quality, Public Service, PDAM*

ABSTRACT

Penelitian ini mengevaluasi kualitas layanan PDAM Tirta Kencana Samarinda berdasarkan persepsi pelanggan dengan menggunakan model SERVQUAL. Pendekatan kualitatif diterapkan melalui wawancara mendalam dengan lima informan yang terdiri dari pemangku kepentingan internal dan eksternal, yang dianalisis menggunakan analisis tematik pada lima dimensi: aspek fisik, keandalan, responsivitas, jaminan, dan empati. Temuan menunjukkan bahwa aspek fisik dan keandalan merupakan area kelemahan yang paling kritis, yang ditandai dengan infrastruktur yang terbatas dan waktu penyelesaian layanan yang tidak konsisten. Responsivitas menunjukkan pola yang tidak merata, dengan respons awal yang kuat namun komunikasi tindak lanjut yang lemah. Jaminan didukung oleh kebijakan pemulihan layanan yang ada, meskipun cakupannya masih terbatas. Empati muncul sebagai dimensi terkuat, dengan pelanggan secara konsisten melaporkan interaksi positif dengan staf. Dengan mengacu pada Teori Ekspektasi-Diskonfirmasi, Teori Ekspektasi Pelanggan, dan kerangka kerja Kualitas Layanan yang Dirasakan, penelitian ini menyimpulkan bahwa kesenjangan antara ekspektasi pelanggan dan kinerja layanan aktual merupakan pendorong utama ketidakpuasan. Rekomendasi praktis diajukan, termasuk investasi infrastruktur, sistem komunikasi proaktif, dan kebijakan pemulihan layanan yang terstandarisasi untuk meningkatkan kualitas layanan secara keseluruhan di PDAM Tirta Kencana Samarinda.

Kata kunci: *Kualitas Layanan, SERVQUAL, Harapan Pelanggan, Persepsi Kualitas Layanan, Layanan Publik, PDAM*

CHAPTER I

INTRODUCTION

1.1 Company Profile

Perusahaan Daerah Air Minum (PDAM) are government-owned enterprises that have a strategic mandate to provide, manage, and distribute clean water for public use. As entities operating in the public utility sector, PDAMs not only play a role in meeting the basic needs of the community for potable water, but also contribute to regional socio-economic development. Perusahaan Daerah Air Minum (PDAM) Tirta Kencana Kota Samarinda was established in 1976 as a public service unit owned by the Samarinda City Government in charge of providing clean water to the community. At the beginning of its operation, the PDAM only served a small part of the city area, but along with population growth and increased demand for clean water, service coverage continued to be expanded. The company has gone through various stages of development, including infrastructure modernization, increasing production capacity, and digitizing customer services.

PDAM Tirta Kencana Samarinda is a regionally owned enterprise engaged in public services, specifically in the provision and distribution of clean water to the people of Samarinda City. In addition to providing the main service of connecting clean water to customers' homes, PDAM also offers supporting services such as network maintenance, water meter testing, and customer service related to

administration and technical matters. In its operational context, there are several conditions that affect the effectiveness of services, particularly those related to the length of the service process for both new and existing customers.

As a public service office, PDAM Tirta Kencana Samarinda deeply regrets that service delivery has not always met the expectations of its customers. Delays in new installation processes and the slow handling of customer complaints reflect a gap between the company's service commitments and the actual experience received by the community. The management recognizes this shortcoming and acknowledges the need to take concrete steps toward improving service efficiency — particularly by shortening the length of time required for both new connection installations and the resolution of customer complaints — so that the trust and satisfaction of the people of Samarinda can be better upheld.

The vision of PDAM Kota Samarinda is to become a reliable, professional, and sustainable drinking water provider for the people of Samarinda. This vision is in line with its mission, which focuses on providing high-quality, safe, and affordable drinking water services to the entire society. PDAM is committed to improving operational efficiency and effectiveness through professional and transparent management, as well as encouraging innovation and the use of technology to support the creation of superior services. In addition, PDAM also pays great attention to environmental sustainability in every water production and distribution process. All of these principles are implemented through the development of distribution networks, improvement of water quality,

implementation of technology-based customer services, and strengthening of human resource capacity so that service objectives are always in line with actual results on the on site.

PDAM Tirta Kencana Kota Samarinda is led by a Managing Director who is supported by three directorates, each with complementary tasks and functions. The General Directorate is responsible for the internal management of the company, including internal supervision covering audits and supervision of all operational activities, human resource management through recruitment, training, and employee development, as well as financial management covering bookkeeping, budgeting, and financial reporting. In addition, the General Directorate also handles administrative matters, asset management, and maintenance of office facilities and infrastructure. Furthermore, the Service Directorate focuses on managing customer relations and satisfaction by handling customer information, complaints, and communications. This directorate also ensures customer compliance with water service usage regulations, while developing new business partnerships and opportunities to increase the company's non-tariff revenue. Meanwhile, the Technical Directorate is responsible for all technical aspects of water supply, from the distribution of clean water to customers, the maintenance of pipelines and technical infrastructure, to the management of water treatment plants to ensure that the quality and quantity of water produced meets service standards.

PDAM Tirta Kencana Kota Samarinda is a regional company with approximately 500 employees and headquarters at Jalan PM No. 1, Samarinda City, East Kalimantan. In carrying out its operations, PDAM divides its service area into four main regions to ensure more effective and equitable distribution of clean water. Region I covers the districts of Samarinda Kota, Samarinda Ilir, and Sambutan; Region II covers the districts of Samarinda Ulu and Sungai Kunjang; Region III covers the districts of Samarinda Seberang, Loa Janan Ilir, and Palaran; while Region IV serves the districts of Sungai Pinang and Samarinda Utara, including the Lempake and Bengkuring areas. This division of areas aims to strengthen the service system, ensure the reliability of water supply, and improve operational efficiency throughout the PDAM Tirta Kencana service area.

1.2 Background

Public services are services provided by governments or government-authorized entities to fulfill the collective needs of society, spanning sectors such as water supply, electricity, sanitation, transportation, healthcare, education, and public administration (Osborne, 2018). Regardless of their form, public services are characterized by their orientation toward collective benefit rather than commercial profit, and are expected to be accessible, consistent, and equitable across all segments of the population (Lovelock & Wirtz, 2016). Their scope is broad, encompassing both infrastructure-based services delivered through physical networks and administrative services delivered through institutional processes,

making them fundamental to the quality of life and daily functioning of communities.

At the international level, the quality of public service delivery has been a persistent concern across both developed and developing nations. OECD (2022) notes that even in high-performing systems, challenges remain in ensuring consistent service quality across regions, translating policy commitments into frontline delivery, and meeting evolving citizen expectations under resource constraints. Countries such as the United Kingdom and Singapore have addressed these challenges through systematic reforms including performance measurement frameworks, citizen charters, and digital service transformation (Pareek & Sole, 2022). Nevertheless, research confirms that issues of service delay, limited responsiveness, and gaps between stated standards and actual delivery remain common across a wide range of national contexts, including those with well-developed institutional frameworks.

In the Indonesian context, the quality of public services has historically lagged behind international standards due to a combination of structural and institutional factors. Turner et al. (2022) identify the legacy of a large, centralized bureaucracy and uneven decentralization as primary constraints on service quality improvement across the country. This is reflected empirically in Indonesia's public services perception index, which stood at only 3.79 out of 5 in 2021 despite a decade of reform efforts, and in the country's Corruption Perception Index ranking of 110 out of 180 countries in 2022 (DINA, 2023). Yusriadi and Farida (2019) further document that the most persistent problems in Indonesian public service delivery

include excessive bureaucratic complexity, limited frontline resources, and a consistent pattern of implementation gaps between established service standards and actual field practices—conditions that disproportionately affect regionally managed service providers.

The gap between Indonesian public service performance and international benchmarks is largely attributable to systemic weaknesses that compound one another across levels of governance. Mansoor and Williams (2018) highlight that in developing country contexts, poor inter-agency coordination, inadequate infrastructure investment, and the absence of robust performance monitoring mechanisms are among the most significant structural barriers to consistent service delivery. In Indonesia, these challenges are amplified by the wide variation in human resource capacity across regional government institutions and recruitment processes that have not always been merit-based (Asian Development Bank, 2021). While developed nations have increasingly closed service quality gaps through evidence-based management and digital transformation, Indonesian regional service providers continue to operate under conditions of chronic resource constraint, making sustained quality improvement difficult to achieve without targeted institutional investment.

Among the public services with the longest institutional history in Indonesia is the provision of clean drinking water, delivered through Perusahaan Daerah Air Minum (PDAM)—regional-owned enterprises operating under local government authority since the 1970s. PDAMs are the primary institutional providers of piped water in their respective service areas, and their service scope encompasses new

connection registration and installation, water meter reading and billing, meter calibration and testing, complaint handling, and distribution infrastructure maintenance. In many districts and cities across Indonesia, PDAM is the sole provider of this essential utility, making the consistency and quality of its services directly consequential to the health, comfort, and daily livelihoods of the communities it serves (Santosa, 2020).

Despite their critical mandate, PDAMs across Indonesia have been consistently documented as facing recurring service quality challenges. Sudarwanto et al. (2022) found that many regional water companies operate with inadequate water quality standards, low distribution coverage, and financial losses attributable to operational inefficiencies. At the customer-facing level, studies across multiple PDAM service areas have identified delays in new connection installation, inconsistencies in meter reading accuracy, slow responses to complaints, unstable water pressure, and insufficient communication with customers regarding service timelines as the most frequently reported issues (Dewi & Mursyidah, 2022; Fitriani et al., 2023). These challenges reflect the broader structural weaknesses of Indonesian regional public service organizations and form the contextual backdrop against which the service quality of PDAM Tirta Kencana Samarinda is examined in this study.

The similar problems of public service delivery are also confronted by PDAM Tirta Kencana Samarinda while completing the new installation for new customers and customers who ask for complaints. First, for new customers who visit to register the installation, the main obstacle lies in the length of the water

connection installation process. At the beginning, it takes around four to six days from the customer registration stage to the on-site survey by the technical department. Then, it continues with an additional three to four days from the customer making payment to the installation being carried out by the contractor. Additionally, another factor prolonging the installation process for new customers is the manager approval stage, which can only be conducted after all administrative and technical processes are completed. This stage often becomes a bottleneck as it takes longer than expected, ultimately affecting overall customer satisfaction levels. This lengthy duration causes dissatisfaction among customers who expect fast and efficient service. Meanwhile, for existing customers, common problems arise when there is an unreasonable spike in water bills. In such situations, customers are suggested to conduct a paid meter test, but this process often takes between ten and thirty days after payment is made. This situation often requires customers to return to the PDAM office to inquire about the meter test schedule, which of course causes inconvenience for customers who have already waited a long time.

Workflow Processing Stage

New Water Connection

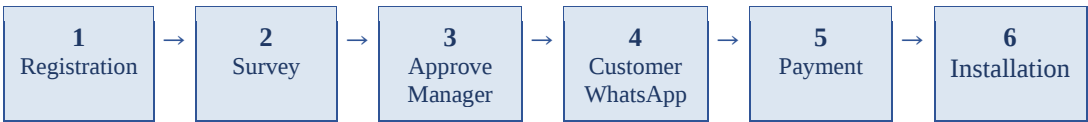


Figure 1.2 Service Workflow – New Water Connection Process

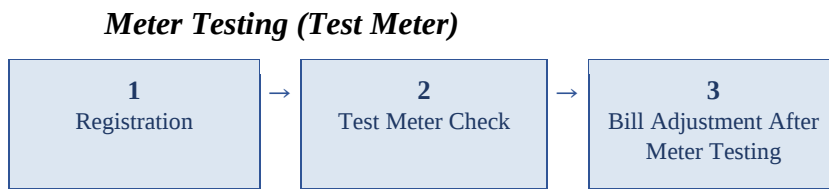


Figure 1.3 Service Workflow – Meter Testing Process

As a public service office, PDAM Tirta Kencana Samarinda bears the fundamental responsibility of delivering clean water services that are not only accessible, but also timely and reliable. It is therefore deeply regrettable that the current service delivery has consistently fallen short of what customers rightfully expect. The prolonged waiting periods experienced by new customers during the connection installation process — often stretching from two weeks to three weeks — as well as the undue delays faced by existing customers seeking meter testing, which in some cases extend up to two to three weeks, represent a significant gap between the company's stated commitments and its actual performance on the ground. Such conditions not only erode public trust but also contradict the core mission of the company to serve the community with efficiency and professionalism. In this regard, the management of PDAM Tirta Kencana Samarinda must urgently reconsider its operational approach and take concrete measures to shorten the length of time required for both new connection installations and the resolution of customer complaints, so that the quality of service rendered truly reflects the standards that the people of Samarinda deserve.

Based on observations during the internship period, it was found that in recent months there has been an increase in the number of customer water meter malfunctions, which has resulted in a surge in water bills. To follow up on this, customers are required to conduct meter testing, and on average, around fifty customers per month request this service. However, high demand often causes delays in meter testing, which can take 20 to 30 days, causing inconvenience to customers waiting for the results. On the other hand, the process of installing new water connections also experiences similar obstacles, with some customers having to wait 20 to 30 days from registration to installation at their homes. The length of service time is due to several lengthy process stages, particularly the on site survey stage, which can take between 7 and 10 days, and the manager approval stage, which often requires an additional 4 to 10 days. This situation poses a major challenge for PDAM in maintaining operational efficiency while also maintaining service quality to ensure customer trust and satisfaction.

This issue is important to study because it is directly related to the effectiveness of PDAM Tirta Kencana Samarinda's service performance. This research is in line with the company's vision, which emphasizes improving operational efficiency and effectiveness in providing clean water services to the community. By improving service quality, PDAM can not only accelerate internal work processes, but also foster trust from both existing and new customers in the company's professionalism. The relevance of this research for PDAM Samarinda is to provide input to management in improving the service system to be more efficient and responsive to customer needs. The output is expected to help the

company improve work processes, expand services, and strengthen PDAM's image as a professional and reliable clean water provider.

Efforts to improve service standards at PDAM Tirta Kencana Samarinda require a systematic analytical foundation, in which the SERVQUAL model can be used as a framework to identify service dimensions that need optimization. Parasuraman, Zeithaml, and Berry (1988) formulated five dimensions of service quality, which include tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman, Zeithaml and Berry, 1988, p. 23). The application of these dimensions in the public water supply sector is highly relevant because technical quality alone is not sufficient to guarantee overall customer satisfaction (Gowela et al., 2017, p. 1).

The tangible dimension is not only related to the availability of physical infrastructure, but also how facilities and service resources are able to reflect the organization's professionalism in the eyes of the public (Setiono and Hidayat, 2022, p. 331). By measuring the gap between public expectations and the service performance received, companies can identify weaknesses in the distribution system more accurately.

Reliability in consistently distributing water is at the core of the reliability dimension, where companies are required to fulfill their service promises accurately and precisely in order to maintain customer trust (Setiono and Hidayat, 2022, p. 331). However, in a dynamic operational context, responsiveness emerges as the most crucial factor. A study by Song et al. (2019) proves that responsiveness

significantly affects customer trust and company image in a positive way (Song et al., 2019, p. 1). This aspect needs to be supported by assurance that builds a sense of security through the competence and credibility of officers, as well as empathy that reflects the organization's attention to the specific needs of each customer (Setiono and Hidayat, 2022, p. 331). Through a responsive and customer-oriented service approach, PDAM not only acts as a clean water provider but also as a public institution that builds trust and long-term relationships with the community.

On the other hand, Expectation–Disconfirmation Theory (EDT) explains that customer satisfaction is determined by the comparison between initial expectations and the actual performance of a service (Schiebler et al., 2025). According to Richard L. Oliver (1980), customers evaluate their experience by assessing whether the service performance meets, exceeds, or falls short of their expectations. This evaluation process results in three possible outcomes: positive disconfirmation (performance exceeds expectations), confirmation (performance matches expectations), and negative disconfirmation (performance falls below expectations). As emphasized by Jing Zhang et al. (2021), the level of customer satisfaction is directly influenced by the extent to which service providers are able to fulfill or surpass these expectations.

Beyond the EDT framework, understanding customer expectations as a standalone concept is equally important in evaluating public service quality. Customer Expectation refers to the beliefs and standards that customers hold regarding a service before they experience it, and can be distinguished into two

levels: desired service, representing what customers ideally hope to receive, and adequate service, reflecting the minimum level they are still willing to accept (Zeithaml, Berry & Parasuraman, 1993). Between these two levels lies a zone of tolerance, within which service performance is considered acceptable even if it does not fully meet the desired standard. In the context of PDAM, understanding where customers' expectations currently sit — whether at the desired or merely adequate level — is essential for determining the direction and priority of service improvements.

Customer expectations are shaped by various factors including prior service experiences, word-of-mouth communication, and the explicit or implicit promises made by the service provider (Kotler & Keller, 2016). This means that expectations are dynamic and can shift over time, making it necessary for service organizations to continuously monitor and manage them. In public utility settings such as PDAM, where customers have no alternative provider, unmet expectations can lead to long-term erosion of institutional trust even when customers remain as users of the service (Denhardt & Denhardt, 2015).

Complementing both EDT and Customer Expectation Theory, the concept of Perceived Service Quality captures the customer's overall judgment of service excellence formed across multiple service interactions. Brady and Cronin (2001) propose that perceived service quality is shaped by three hierarchical components: interaction quality, physical environment quality, and outcome quality — meaning that weaknesses in any single component can lower the customer's overall

evaluation regardless of how well other components perform. Cronin and Taylor (1992) further argue that perceived service quality is best understood as a cumulative assessment built across repeated service encounters rather than a single transaction, making it a particularly relevant lens for evaluating an organization like PDAM whose customers interact with the service system at multiple touchpoints over time.

Broadly speaking, the general objective of the research was to analyze, design, and propose an optimized workflow model for the new connection installation service process at PDAM Tirta Kencana Kota Samarinda. The proposed model is not only intended as a procedural improvement, but also as a strategic initiative to significantly reduce the duration of waiting times. With a faster and more efficient process, it is expected that there will be an increase in perceived service quality, which in turn will increase the level of pleasure and build a positive relationship foundation with potential customers from the point of their first interaction with the company.

1.3 Problem Formulation

The length of the process of installing new water connections is inseparable from various problems that occur at each stage. This process begins with the submission of customer application files, which are then registered in the system. At this stage, obstacles often arise because the files submitted by customers are

incomplete, which causes delays in the subsequent process. After that, a survey is conducted by the on site engineering team. However, the on site team is only able to survey about five houses per day, while the number of application files submitted is much higher. Before the files are approved by the manager, the on site engineering team must also make a sketch of the house location, and this stage often takes time due to the limited number of on site team personnel, which is only two people. In addition, delays also occur at the manager approval stage, especially when the manager is attending activities outside the office or meetings, so that the files cannot immediately move on to the next stage, which is payment by the customer. After payment is made, the final stage is the installation of water pipes by the appointed CV, which usually takes about two to four days. The length and duration of these stages often cause customers to feel dissatisfied and even angry.

Meanwhile, another problem also arises in the meter testing process. Customer complaints related to meter testing can reach 5-10 people per day who then make payments for the process. Based on standard operating procedures (SOP), meter testing should be carried out one to two days after the customer makes payment. However, in reality, some customers have to wait up to two to three weeks without any checks. This causes dissatisfaction and prompts customers to return to the PDAM office to inquire about the inspection schedule, often leading to anger due to what is perceived as slow service that does not comply with established procedures.

Through its mission of improving operational efficiency and effectiveness, PDAM aims to ensure that every service runs quickly, accurately, and is oriented towards customer satisfaction. However, in reality, there are still many water disruptions, weak water pressure in some areas, and suboptimal responses to customer requests. This shows that the implementation in the on site services does not fully reflect the company's vision and mission in providing optimal service to the community.

During my internship, it was clear that there was an imbalance between customer expectations and the reality of service on site, such as the meter testing process and the installation of new connections, which often took weeks instead of the expected 1-2 days. This issue is in line with the findings of Setiono and Hidayat (2022), who emphasize that the dimension of reliability is a crucial factor that significantly affects customer satisfaction. Based on their analysis, the company's inability to provide fast and accurate services according to the promised time will create a wide gap, so that customers' perceptions of the overall quality of service will be poor because the performance they receive is below their expectations.

Research Question

1. How is the service quality in daily operations at PDAM Tirta Kencana Samarinda? (include service at the office and outside office such as installing and testing)
2. What factors hinder service quality in daily operations?

3. How does management PDAM Tirta Kencana Samarinda handle the problems in daily operations to improve service quality?
4. What is the proposed strategy to handle the issue on ServQual?

1.4 Research Objectives

The general objective of the research was to analyze, design, and propose an optimized *workflow* model for the new connection installation service process at PDAM Tirta Kencana Kota Samarinda. The proposed model is not only intended as a procedural improvement, but also as a strategic initiative to significantly reduce the duration of waiting times. With a faster and more efficient process, it is expected that there will be an increase in *perceived service quality*, which in turn will increase the level of pleasure and build a positive relationship foundation with potential customers from the point of their first interaction with the company.

Specific Objectives

- a. Analyze the gap between standard operating procedures and the reality experienced by customers in the on site services.
- b. Evaluate the impact of service delays on customer satisfaction levels.
- c. Provide recommendations or suggestions for PDAM Samarinda to improve efficiency and effectiveness, particularly in terms of service.

1.5 Research Implication

The results of this study are expected to have a positive impact on PDAM Samarinda, particularly in improving the quality of customer service. By understanding the causes of customer dissatisfaction, such as delays in the process of installing new water connections and delays in checking test meters, the company can conduct a more targeted evaluation of its current work systems. Through in-depth understanding, continuous evaluation, and improvements at every stage of service, it is hoped that PDAM will be able to rebuild customer trust and create a positive image as a professional and responsive clean water service provider in the eyes of the community.

In addition to having a positive impact on PDAM Samarinda, this study also contributes to the development of knowledge on the site of public service management. This study reinforces the relevance of the SERVQUAL model in the context of public services, especially as a tool for measuring customer satisfaction levels in the public service sector. The findings of this study also reinforce the evidence that poor service quality in the dimensions of reliability and responsiveness can reduce customer satisfaction levels. This also emphasizes the importance of applying the principles of effectiveness and efficiency in public service management, as stated in the vision and mission of PDAM Samarinda, in order to realize more professional, fast, and customer satisfaction-oriented services.

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical foundation

2.1.1 SERVQUAL (Service Quality)

Service quality is a fundamental concept in this study because it is directly related to how customers assess the performance of the services they receive. Parasuraman, Zeithaml, and Berry (1988) define service quality as the result of a comparison between customer expectations and their perceptions of actual service performance. This view emphasizes that service quality is not objective, but rather is formed from customers' subjective evaluations of their service experiences. In line with this, Ghotbabadi, Feiz, & Baharun (2015), used by organizations to understand customer needs and desires through analysis of customer experience and satisfaction levels with the services provided.

SERVQUAL is a service quality measurement model developed to evaluate service quality from the customer's perspective by comparing customer expectations and their perceptions of the service performance received (Parasuraman, Zeithaml, & Berry, 1988). This model places service quality as the result of the gap between expectations and perceived performance, so that service quality is understood as a subjective concept based on customer evaluation (Parasuraman et al., 1988). In its development, SERVQUAL is seen as a diagnostic tool that not only measures the level of service quality but also helps organizations

identify areas of service that are lacking and need improvement (Parasuraman, Zeithaml, & Berry, 1991). Various literature studies confirm that SERVQUAL has become one of the most widely used approaches due to its ability to provide a systematic and structured analytical framework for assessing service quality in various service sectors (Ghotbabadi, Feiz, & Baharun, 2015).

Tangibles refer to the physical aspects of a service that can be directly observed by customers, including physical facilities, equipment, and the appearance of personnel involved in the service process (Parasuraman, Zeithaml and Berry, 1988). In the context of service organizations, particularly in the public sector, the physical aspects of service play an important role because they represent the initial impression of the institution's professionalism and credibility in the eyes of customers (Setiono and Hidayat, 2022). Various literature studies confirm that customers often use visual cues from the physical environment and service facilities as a starting point in evaluating the quality of the services they receive (Ghotbabadi, Feiz and Baharun, 2015). In addition, analysis of service quality measurement methods shows that the tangibles dimension serves as an initial indicator that shapes customer perceptions before they assess other functional and interactional aspects of service (Ingaldi, 2018).

The dimension of reliability relates to an organization's ability to provide services accurately, consistently, and in accordance with the promises made to customers (Parasuraman, Zeithaml and Berry, 1988). In the context of public services and basic utilities, reliability is a crucial dimension because it is directly related to service continuity and public trust in service provider institutions (Ohwo

and Agusomu 2018). Research in the public service sector shows that unreliability in the fulfillment of basic services is often the main source of customer dissatisfaction, even though the physical aspects and service facilities are adequate (Ohwo and Agusomu 2018). In Indonesia, Setiono and Hidayat (2022) emphasize that reliability is a key indicator of the professionalism of public service organizations in consistently meeting customer expectations.

Responsiveness refers to the willingness and ability of service providers to assist customers and provide services quickly and in a timely manner (Parasuraman, Zeithaml and Berry, 1988). Various studies show that responsiveness plays an important role in shaping perceptions of service quality because customers assess the extent to which organizations are able to respond directly to their complaints, requests, and needs (Ghotbabadi, Feiz and Baharun, 2015). In the context of public services, responsiveness becomes even more important because delays or unpreparedness in service are often perceived as a form of institutional indifference towards the community (Gowela et al., 2017). Empirical research also shows that a high level of responsiveness contributes significantly to increased trust and image of service institutions, especially in situations of crisis and operational pressure (Yusefi et al., 2022).

The assurance dimension relates to the knowledge, competence, and trustworthy attitude of employees in providing a sense of security to customers during the service process (Parasuraman, Zeithaml and Berry, 1988). In service industries, especially the public sector, assurance plays an important role because customers often do not have the technical ability to assess service quality directly

and depend on the credibility of service officers (Jain, 2015). Studies on public services show that the level of public trust in institutions is greatly influenced by the ability of officers to provide clear, accurate, and convincing information (Khatab et al., 2019). Therefore, assurance is a dimension that serves as a buffer for customer trust in the quality and legitimacy of services provided by public organizations (Leninkumar, 2017).

The dimension of empathy describes individual attention and organizational understanding of the specific needs of each customer in the service process (Parasuraman, Zeithaml and Berry, 1988). The literature on service quality emphasizes that empathy is important when organizations are able to provide services that are personal and not merely procedural, especially in the context of public services that deal with diverse communities (Singh et al., 2023). Research in the public service sector shows that a lack of empathy is often perceived as a rigid bureaucratic attitude and contributes to low customer satisfaction (Afriyie et al., 2016). Thus, empathy acts as a dimension that bridges the technical aspects of service with the emotional experience of customers in assessing overall service quality (Ingaldi, 2018).

The SERVQUAL theory was first introduced by Parasuraman, Zeithaml, and Berry through the development of a gap model that defines service quality as the difference between customer expectations and their perceptions of the service performance received (Parasuraman, Zeithaml, & Berry, 1985). This initial model identified five main gaps (five service quality gaps) that explain the sources of

organizational failure in consistently meeting customer expectations (Parasuraman et al., 1985). In its development, Parasuraman, Zeithaml, and Berry formulated ten dimensions of service quality that customers use in evaluating services, including reliability, responsiveness, competence, access, and tangibles (Parasuraman et al., 1985). However, further empirical testing showed overlap between dimensions, prompting a simplification of the model to make it more operational and applicable in various service contexts (Parasuraman, Zeithaml, & Berry, 1988).

In response to criticism of the complexity of the initial model, Parasuraman, Zeithaml, and Berry later refined SERVQUAL into five main dimensions, namely reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988). This simplification made SERVQUAL the most widely used instrument for measuring service quality based on customer perception in the literature on service management and marketing (Parasuraman et al., 1988). The SERVQUAL model was later revised to strengthen construct validity and measurement consistency, without changing its five-dimensional structure (Parasuraman, Zeithaml, & Berry, 1991). The revision confirmed that the gap between customer expectations and perceptions is a key indicator in identifying service quality shortfalls (Parasuraman et al., 1991).

As it has evolved, SERVQUAL is no longer limited to the commercial sector, but has begun to be widely applied in various service industries, including banking, healthcare, education, and public services (Ghotbabadi, Feiz, & Baharun, 2015). A review of the literature shows that SERVQUAL has become the dominant

framework for evaluating service quality due to its ability to map operational weaknesses that are not detected by technical performance measurements alone. In the context of the public sector, SERVQUAL is used to assess the effectiveness of public service organizations by comparing institutional service promises and performance realization on the spot (Gowela et al., 2017). This confirms that SERVQUAL has evolved from a business measurement tool into a strategic instrument for improving accountability, efficiency, and public trust in public sector services (Falcão et al., 2017).

In supporting the analysis of this study, there are several key concepts used as a basis for understanding customer assessments of service quality. This rationale stems from the concept of service quality, which is defined as the level of service excellence perceived by customers through a comparison between their expectations and the actual service performance. This concept not only highlights the end result of the service, but also encompasses the entire interaction process between the service provider and the customer.

To measure this quality more accurately, this study uses the SERVQUAL framework, which maps quality into five main dimensions, namely reliability, responsiveness, assurance, tangibles, and empathy. These five dimensions are then used to identify which aspects most influence customer perceptions of PDAM services.

The relationship between the concepts examined in this study is centered on service quality and its measurement through the SERVQUAL model. Service

quality reflects customers' overall evaluations of the services they receive, which are shaped by their perceptions of how well service delivery meets expected standards across different service dimensions (Pakurár et al., 2019). To systematically capture these perceptions, the SERVQUAL model is used as an analytical framework that identifies gaps between customers' expectations and perceived service performance in each dimension of service quality, including tangibles, reliability, responsiveness, assurance, and empathy.

Within this framework, SERVQUAL functions as a diagnostic tool that links service performance to customers' perceptions of service quality. Each dimension of SERVQUAL represents a specific aspect of service delivery that contributes to the overall evaluation of service quality, where deficiencies in one or more dimensions may negatively influence customer perceptions even if other dimensions perform well (Jonkisz et al., 2022). In the context of public service organizations such as PDAM, this relationship is particularly important because consistent service delivery, timely responses, and reliable operations directly shape public perceptions of service quality.

2.1.2 Expectation Disconfirmation Theory (EDT)

Expectation–Disconfirmation Theory (EDT) is one of the primary theories used to explain customer satisfaction through the comparison between initial expectations and actual service performance (Schiebler et al., 2025). According to Jing Zhang et al. (2021), customers evaluate their consumption experience by

comparing their pre-service expectations with their perceptions of performance after the service is delivered. The outcome of this evaluation determines whether customers feel satisfied or dissatisfied with the service.

The first component of EDT is expectations, which refer to the customer's initial beliefs or standards regarding a service. Oliver (1997) states that expectations are formed based on prior experiences, marketing communications, and information from external sources. Therefore, expectations serve as a benchmark against which service performance is assessed.

The second component is perceived performance, which represents the customer's perception of the actual service performance. According to Oliver (1997), this perception is subjective and influenced by the customer's direct experience during the service process. As a result, different customers may evaluate the same service differently based on their individual experiences.

The third component is disconfirmation, which refers to the result of comparing expectations with actual performance. Oliver (1980) explains that disconfirmation can take three forms: positive disconfirmation when performance exceeds expectations, negative disconfirmation when performance falls below expectations, and confirmation when performance matches expectations. These outcomes directly influence the level of customer satisfaction.

In the context of public services, EDT is relevant for understanding how service users evaluate the quality of services provided (Zhang et al., 2021). Jing

Zhang et al. (2021) emphasizes that customer satisfaction largely depends on the ability of service providers to meet or exceed customer expectations. This makes EDT a useful framework for analyzing customer experiences in service delivery.

Furthermore, EDT is closely related to service quality theory. Research by Jing Zhang et al. (2021) highlights that the gap between expectations and perceived performance is a key determinant of service quality perception. Therefore, Expectation–Disconfirmation Theory provides a strong theoretical foundation for examining the relationship between service quality and customer satisfaction in this study (Schiebler et al., 2025).

2.1.3 Customer Expectation

Customer expectation refers to the beliefs and standards that customers hold regarding a service before they experience it (Wirtz & Lovelock, 2021). These expectations serve as an internal reference point that customers use to evaluate whether the service they receive is satisfactory or not. Zeithaml, Berry & Parasuraman (1993) further distinguish two levels of customer expectation: desired service, which represents what customers hope to receive, and adequate service, which reflects the minimum level of service they are willing to accept. Between these two levels lies a zone of tolerance, within which service performance is considered acceptable even if it does not fully meet the desired standard.

Customer expectations are shaped by various factors, including prior service experiences, word-of-mouth communication, personal needs, and explicit or implicit promises made by the service provider (Kotler & Keller, 2016). This means that expectations are dynamic and can shift over time as customers accumulate more experience with a service. In the context of public services, customer expectations tend to be influenced heavily by perceived fairness, consistency of service delivery, and the responsiveness of service staff (Denhardt & Denhardt, 2015).

Understanding customer expectations is particularly important in service quality management because a service that performs well in absolute terms may still be perceived as inadequate if it falls short of what customers anticipated. Therefore, organizations such as PDAM need to actively manage and align customer expectations with realistic service capabilities, not only to prevent dissatisfaction but also to build long-term trust and loyalty (Wirtz & Lovelock, 2021).

2.1.4 Perceived Service Quality

Perceived service quality refers to the customer's overall judgment or assessment of the superiority or excellence of a service, formed through a comparison between their expectations and their actual service experience (Zeithaml, 1988). Unlike objective quality, which can be measured through technical standards, perceived service quality is inherently subjective and varies

across individual customers based on their personal expectations, values, and prior experiences (Afthanorhan et al., 2018)).

Brady and Cronin (2001) further propose that perceived service quality is a multidimensional construct shaped by three hierarchical components: interaction quality, physical environment quality, and outcome quality. Each component contributes to the customer's overall perception, meaning that a weakness in any single component has the potential to lower the customer's overall evaluation of service quality, regardless of how well other components perform.

In the context of this study, perceived service quality is a central concept because it directly reflects how customers of PDAM Tirta Kencana Samarinda evaluate the services they receive across all dimensions of the SERVQUAL model. Halvorsrud et al. (2016) argue that perceived service quality is best understood as a cumulative assessment formed across multiple service encounters rather than a single interaction. This means that managing perceived service quality requires a holistic and consistent approach that addresses all aspects of the service experience, from physical facilities to staff interactions and service delivery outcomes.

2.2 Framework

The conceptual framework in this qualitative study was developed to help understand the phenomenon of public services in depth, particularly the dynamics of bureaucracy and operational obstacles in the service process of PDAM Tirta Kencana in Samarinda City. In qualitative research, the conceptual framework does not function as a model for testing statistical relationships between variables, but rather as an analytical tool for interpreting the processes, experiences, and meanings that emerge from organizational practices. Aspers and Corte (2019) emphasize that qualitative research is an iterative process that aims to produce a better understanding through the researcher's proximity to the phenomenon being studied, so that the conceptual framework serves as a guide for interpretation, not as a tool for verifying causality. The framework begins with Service Quality at PDAM Tirta Kencana Samarinda as the central research focus, examining how the organization delivers services to its customers amid the complexity of bureaucratic processes and operational constraints that characterize public service organizations.

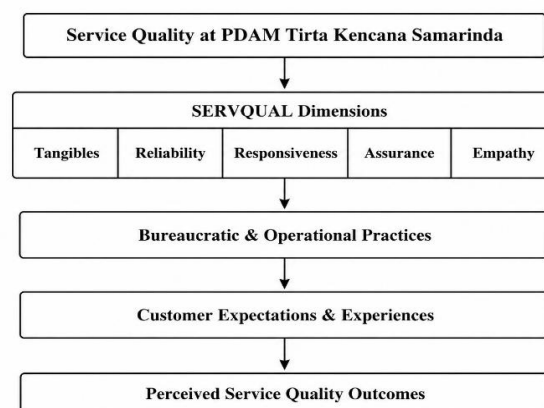


Figure 2.1 Framework

The conceptual approach of this study relies on the use of the SERVQUAL model as a qualitative analysis framework to understand service quality from the perspective of processes and user perceptions. SERVQUAL, which includes the dimensions of tangibles, reliability, responsiveness, assurance, and empathy, is widely used to assess service quality based on user experience (Parasuraman et al., 1988). However, as emphasized by Dahuri et al. (2025), the use of SERVQUAL in the context of public and technical organizations requires conceptual adaptation in order to capture the complexity of services that are not only relational but also structural and operational. In this study, responsiveness serves as the primary analytical lens, understood not merely as the speed of responding to complaints, but as a reflection of the organization's ability to coordinate work units and execute services consistently amid limited operational resources (Ghandour et al., 2024).

The SERVQUAL dimensions are then examined through the lens of Bureaucratic and Operational Practices — including internal procedures, coordination between front-office and field teams, service policies, and complaint handling mechanisms. Dahuri et al. (2025) show that service imperfections often arise due to weak response mechanisms and the absence of data-based monitoring systems, resulting in services that tend to be reactive and inconsistent. This approach is relevant to explain the condition of PDAM, where high service demand is not always matched by operational capacity and procedural flexibility.

To understand the impact of these service practices on public perception, this study integrates Expectation–Disconfirmation Theory as a complementary

conceptual framework, capturing how Customer Expectations and Experiences shape assessments of service quality. This theory explains how the gap between customer expectations and service reality influences overall evaluations of organizational credibility. Zeithaml et al. (1996) assert that failure to meet service expectations not only reduces satisfaction but also impacts long-term assessments of the credibility of public service providers. In the context of PDAM, lengthy bureaucratic processes and multiple layers of approval have the potential to create negative disconfirmation, which then influences public perceptions of the institution's professionalism and reliability.

This conceptual framework also allows for a more holistic analysis by linking service quality to bureaucratic practices and technology utilization. Dahuri et al. (2025) emphasize that the absence of a systematic, data-driven evaluation framework means that service decisions and resource allocation still depend on intuition rather than actual needs in the on site. Similar conditions are reflected in PDAM services, where digital systems are available but have not been optimally integrated into service workflows.

Thus, the conceptual framework in this study serves to explain how the dimensions of SERVQUAL, customer expectations, and bureaucratic practices interact in shaping the Perceived Service Quality Outcomes of PDAM Tirta Kencana — reflecting whether service delivery has successfully met or fallen short of customer expectations. This approach helps researchers understand the complexity of public service phenomena in a contextual manner and provides a

basis for formulating improvement recommendations oriented towards increasing responsiveness, simplifying bureaucratic processes, and optimizing the use of digital systems.

CHAPTER III

METHODOLOGY

3.1 Research Approach

This study employs a qualitative approach aimed at gaining an in-depth understanding of service quality at PDAM Tirta Kencana Samarinda. This approach allows the researcher to explore the experiences, perceptions, and perspectives of informants directly involved in the service process. According to Creswell & Creswell (2018), qualitative research focuses on efforts to understand the meaning of a phenomenon from the participants' perspective, thereby yielding descriptive and contextual data. Through this approach, the researcher can examine in greater detail how the service process unfolds and the various dynamics involved.

The qualitative approach was chosen because this study does not merely focus on the final outcomes of the service but also on the processes occurring within it (Hamilton and Finley, 2019). The issues examined—such as service delays, facility limitations, and communication between staff and customers—are phenomena that cannot be explained solely through quantitative means. Therefore, a deeper understanding is required through the direct experiences of those involved. This approach also enables researchers to identify the underlying causes and obstacles that arise in service operations more comprehensively.

In the context of PDAM Tirta Kencana Samarinda's services, this approach is used to examine how service processes are carried out, from administrative

procedures to technical implementation in the on site services, such as surveys, new connection installations, and meter testing services. Additionally, this approach helps in understanding how service quality is perceived by customers and how staff members fulfill their roles in delivering services. The analysis is conducted based on the SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, and empathy—allowing service quality to be comprehensively assessed from various perspectives (Parasuraman et al., 1988).

Furthermore, the qualitative approach allows researchers to uncover various obstacles encountered in service delivery practices, such as limitations in operational tools, work backlogs, and a lack of follow-up communication with customers. Thus, this study not only describes the current state of service delivery but also provides a deeper understanding of the factors influencing service quality and the potential improvements that can be implemented to enhance overall service performance.

3.2 The Unit of Analysis

In this study, the unit of analysis focuses on the PDAM Tirta Kencana Samarinda in its daily operations. The services analyzed include front-office services, as well as technical on site services, such as the new connection process and meter testing services. These three forms of service were selected because they represent the entire service process of PDAM, ranging from direct interaction with customers to technical implementation on site.

The units of analysis in this study consist of internal and external parties. There are 3 internal respondents. The first respondent is a manager from the operations/service department, who is responsible for monitoring service performance and making decisions regarding service processes on the site. The second respondent is a customer service staff member working in the customer service department at the office, responsible for directly serving customers, providing information, and handling complaints and administrative processes. The third respondent is a staff member from PDAM Samarinda's Regional Service Division 1, tasked with recording data for each service provision.

Meanwhile, the external group consisted of three customers who had previously used PDAM services and encountered difficulties during the service process. Two of these customers were new service subscribers who experienced delays in the installation process. The other customer was a meter testing service user who experienced delays in the water meter inspection process. These customers were selected to obtain a direct understanding of their experiences and perceptions regarding the quality of service provided.

In this study, service quality was also analyzed using the SERVQUAL approach, which consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In the tangibles dimension, the analysis focused on the condition of service facilities and infrastructure, both inside the office—such as the comfort of the waiting room, availability of chairs, air conditioning (AC), cleanliness, and the suitability of work equipment like computers—and outside the

office, such as the availability of water meter testing equipment and the pipeline network.

In the reliability dimension, the analysis focuses on the company's ability to provide services accurately and in accordance with its commitments, particularly regarding the timeliness of new connection services and meter testing. Meanwhile, the responsiveness dimension is analyzed based on the speed and responsiveness of staff in addressing customer needs, questions, and complaints, whether in person at the office or through communication channels.

Furthermore, in the assurance dimension, the analysis focuses on the ability of staff to provide a sense of security and trust to customers, such as the clarity of information provided, the certainty of service processes, and the existence of specific policies such as the waiver of fines under certain conditions. Finally, in the empathy dimension, the analysis emphasizes the attitude and attention of staff toward customers, such as politeness, friendliness, willingness to help, and the ability to understand individual customer needs.

3.3 Data Sources and Data Collection Techniques

The data sources in this study are classified into two main types: primary data and secondary data, which were collected simultaneously to ensure the depth and completeness of the analysis (Creswell & Creswell, 2023). Primary data was obtained directly from primary sources at PDAM Tirta Kencana Samarinda Region

1 through participatory observation and in-depth interviews, while secondary data was obtained from internal administrative records relevant to the service process.

The primary data in this study was obtained through participatory observation conducted during an internship period, specifically from March to June 2025. During this period, the researcher was directly involved as an administrator/frontliner in the customer service department. Through this involvement, the researcher was able to directly observe daily service activities, ranging from the customer registration process, document processing, and file management, to coordination with relevant teams during surveys, new connection installations, and meter testing services. This direct observation enabled the researcher to understand the overall workflow of the service process under real operational conditions and to identify various operational challenges, such as limited supporting facilities, backlog of service requests, and technical constraints during service delivery.

In addition to observation, primary data was also collected through in-depth interviews conducted after the internship period. A total of six respondents were involved, consisting of three internal and three external participants. The internal respondents included a manager in the service/operations division, a customer service officer responsible for handling customers at the office, and a service staff member from PDAM Samarinda Region 1 who was directly involved in service implementation. Meanwhile, the external respondents consisted of three customers, two of whom used new connection services and one who used a meter testing

service, all of whom had experienced service-related issues. The interviews were conducted in various settings, including office environments and informal locations such as cafés, based on mutual agreement to ensure comfort and openness during the discussion. The interview guidelines were developed based on the SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, and empathy—to ensure that data collection covered all aspects of service quality in a structured manner.

To reinforce the findings from the primary data, this study also utilized secondary data sourced from internal company records. The secondary data used consists of subscription connection (Sambungan Langganan/SL) data that chronologically records the service timeline, starting from the registration date, survey implementation, manager approval, customer notification via WhatsApp, to the final installation stage. Each stage is recorded with specific dates, allowing the researcher to track the duration of each process in detail.

The availability of this chronological data enables the identification of delays at specific stages within the service process and helps determine which stages tend to become bottlenecks. By comparing estimated service durations with actual completion times, the researcher is able to objectively evaluate the reliability of the service process. The integration of primary data (interviews and observation) and secondary data (SL records) allows the study to go beyond subjective perceptions and provides a more comprehensive and evidence-based analysis of service quality at PDAM Tirta Kencana Samarinda.

3.2 Validity and Reliability Test

In qualitative research, validity refers to the researcher's efforts to ensure that the data and findings truly reflect the conditions observed on site (Creswell & Creswell, 2018). Therefore, specific techniques are required to ensure that the research results have a high degree of reliability. In this study, data validity was maintained through the application of triangulation and researcher reflection.

3.2.1 Triangulation

Triangulation is conducted by comparing information obtained from various sources to produce mutually reinforcing findings. In this study, the triangulation process was carried out by linking interview results from internal parties—such as managers and service staff—with perspectives from external parties, namely customers. Additionally, the interview data was cross-checked with the results of direct observations made during the researcher's internship.

For example, information provided by internal sources regarding the smoothness of service processes contrasts with actual conditions on the ground, which reveal obstacles such as a shortage of test meters and administrative hurdles. To corroborate these findings, the researcher also utilized subscription connection (SL) data containing service lead times, thereby allowing for a comparison between

informants' statements and actual conditions. Through this approach, the consistency of the research findings can be tested more objectively.

3.2.2 Researcher's Reflection

A researcher's reflection is a self-evaluation process conducted to avoid bias in the research. Given that the researcher was directly involved in operational activities during the internship period, there is a potential for subjectivity in understanding the phenomena that occurred. Therefore, the researcher consciously reviews each finding by comparing the results of observations and interviews, and ensures that the interpretations made are based on data obtained on the site. This reflection process is carried out continuously from data collection through to analysis, ensuring that the research results remain objective and accountable.

Meanwhile, reliability in qualitative research refers to the consistency of the research process—that is, the extent to which the procedures used can produce similar findings when conducted under the same conditions (Rose and Johnson, 2020).

3.3 Data Analysis Techniques

In this study, the data analysis technique used was thematic analysis, a qualitative research approach that focuses on the process of identifying, grouping, and interpreting patterns or themes emerging from the data (Braun & Clarke, 2017).

Thematic analysis allows researchers to understand phenomena in a more structured manner by organizing data into meaningful categories (Nowell et al., 2017). This approach was chosen because it aligns with the research objective of conducting an in-depth exploration of the service quality of PDAM Tirta Kencana Samarinda in its daily operations, including services both in the office and in the on site, such as new connections and meter testing.

The thematic analysis in this study was conducted based on data from in-depth interviews with informants from both internal and external parties. Internal stakeholders included managers, customer service staff, and service staff from PDAM Samarinda's Region 1 who were directly involved in the service process. Meanwhile, external stakeholders consisted of customers who utilized new connection and meter testing services. Through the data obtained, the researcher identified various experiences, perceptions, and challenges that arose during the service process, from both the service provider's and the customer's perspectives.

In addition to interview data, the thematic analysis was also supported by observations made during the internship period, as well as secondary data in the form of subscription connection (SL) records documenting service timelines. All of this data was analyzed through several stages: data familiarization, coding, thematic grouping, and interpretation. During the coding process, the researcher labeled key information related to service quality, such as facility limitations, service delays, and staff responses to customers.

Subsequently, the identified themes were analyzed using the SERVQUAL framework, which consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman, Zeithaml, & Berry, 1998). This framework was used to systematically group and interpret the research findings based on aspects of service quality. Thus, thematic analysis techniques assist researchers in developing a comprehensive understanding of service conditions, inhibiting factors, and efforts made to improve service quality at PDAM Tirta Kencana Samarinda.

CHAPTER IV

RESULT AND DISCUSSION

4.1 Data Description

A total of 5 respondents participated in this study, consisting of both internal and external parties of PDAM Tirta Kencana Samarinda. The internal respondents included one manager and two staff members, including customer service, who are directly involved in the operational and service processes. Meanwhile, the external respondents consisted of two customers who have experienced the services provided, particularly in new connection installation and service complaints.

The respondent in this study involved three internal respondents with different backgrounds. The first respondent was a 45-year-old male Customer Service Manager (MG) with approximately 25 years of work experience, who was interviewed at a café after the researcher accompanied him to a meeting. The second respondent was a 30-year-old female staff member from Regional Service Division 1 (SF) with approximately 12 years of work experience, and the interview was conducted in the Regional Division 1 office of PDAM Samarinda during the lunch break. The third respondent was a 37-year-old female working in the Customer Service Division of Regional Service 1 (CS) with 16 years of work experience, who was interviewed in the office cafeteria during working hours. Internal respondents provide insights into operational procedures, constraints, and service implementation.

In addition to internal respondents, this study also involved external respondents who are customers of PDAM Tirta Kencana Samarinda. The first respondent (Cust 1) was a 25-year-old woman who experienced difficulties in the new connection process, and the interview was conducted at the PDAM Samarinda office during the daytime. The second respondent (Cust 2) was a 27-year-old man who also encountered issues related to the new connection service, and the interview was conducted at a café in Samarinda City during the evening. External respondents reflect their experiences and perceptions regarding the quality of service received.

In Preliminary Findings, based on the results of interviews conducted with internal and external stakeholders, this study identified six key themes related to service quality at PDAM Tirta Kencana Samarinda. These themes include (1) service facilities and technical infrastructure, (2) the physical condition and comfort of service areas, (3) the timeliness and consistency of service, (4) responsiveness and communication, (5) service policies and assurance, and (6) service interactions and staff empathy. These six themes emerged from the grouping of various initial codes reflecting customers' direct experiences as well as internal perspectives on the ongoing service processes, and together serve as the analytical foundation for the discussion of results presented in the following section.

The first theme, service facilities and technical infrastructure, describes the condition of operational support facilities both within the office and in the field. Findings indicate that while in-office facilities are considered adequate, significant limitations persist in technical aspects critical to field operations, including a

shortage of portable meters, insufficient distribution pipe availability, low water pressure, and suboptimal supporting technology such as low-specification computers and slow network connections. Internal staff consistently identify these equipment shortages as primary operational constraints, while customers directly experience their consequences through frequent meter malfunctions and disruptions to their water supply.

The second theme, the physical condition and comfort of the service area, relates to customers' perceptions of the service environment at the PDAM office. In general, customers rated the service area as sufficiently comfortable and clean, with a well-maintained room temperature and a tidy overall environment. However, the ratings given consistently fall within the "adequate" or "just okay" category, indicating that while the physical facilities meet customers' basic functional needs, they have not yet delivered a service experience that exceeds expectations or creates a distinctly positive impression.

The third theme, the timeliness and consistency of service, highlights a recurring discrepancy between the estimated service completion times communicated to customers and the actual on-site performance. Although the organization has established time standards—such as a 10-day target for new connection installations—customers consistently report experiencing delays well beyond these promises. This finding is further confirmed by secondary data from the Subscription Connection (SL) records, which document significant fluctuations

in total service completion times and reveal dynamic bottlenecks concentrated in field-based operational stages such as surveys and installations.

The fourth theme, responsiveness and communication, describes how the organization responds to customer needs throughout the service process. Findings indicate that initial staff responsiveness is generally positive, with complaints acknowledged and coordinated in a timely manner; however, follow-up communication during service execution remains inconsistent and tends to be reactive rather than proactive, as customers are often required to initiate follow-up themselves rather than receiving proactive updates from the organization.

The fifth theme, service policies and assurance, examines the recovery mechanisms implemented by PDAM when service delays occur. Specific policies—such as the prioritization of repeat complainants and the conditional waiver of late fees for meter testing services—function as trust recovery mechanisms that help mitigate customer dissatisfaction. However, their limited scope means not all affected customers benefit equally from these measures, particularly those experiencing delays in new connection installations, which risks creating perceptions of inequity.

The sixth theme, service interaction and staff empathy, indicates that the quality of human interaction is one of the organization's key strengths. Customers consistently report positive experiences with staff at all levels of engagement, describing interactions as friendly, polite, patient, and genuinely helpful throughout the service process. This finding demonstrates that even when technical delays or

operational shortcomings occur, the warmth and attentiveness of staff interactions play a significant role in maintaining customers' overall positive perception of the service they receive.

4.2 Data Analysis

4.2.1 Data Encoding

The interview data in this study were analyzed using a thematic approach through a coding process (Naeem et al., 2023). The coding process involved repeatedly reading the interview transcripts to identify key statements related to the service quality of PDAM Tirta Kencana Samarinda. This stage aimed to systematically capture the main meaning of each respondent's answer. In this study, the coding process was guided by the SERVQUAL framework, which consists of five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. Therefore, the identified data were subsequently categorized into each of these dimensions to ensure the analysis remained focused on evaluating service quality based on the theoretical framework used.

In the tangible dimension, the coding results revealed two main focuses: the condition of service facilities at the office and the availability of operational equipment in the field. The codes that emerged included the comfort and cleanliness of service areas, which were rated as quite good by customers, as well as limitations in supporting facilities such as computers, networks, scanners, the availability of

pipes, water pressure, and test meters. These findings indicate that although the facilities at the office are relatively adequate, there are still constraints regarding the technical infrastructure that supports operational activities in the field.

In the reliability dimension, the coding highlights issues related to timeliness and consistency of service. The dominant codes include discrepancies between estimated times and actual on-site completion, delays in the survey and installation processes, and a backlog of work that affects service duration. These findings indicate that although service time standards have been established, their implementation has not been consistent, particularly for new connection services and meter testing, which are heavily influenced by operational conditions.

In the responsiveness dimension, the coding results reveal two main patterns: rapid initial response and limitations in follow-up service. The codes identified include the speed with which staff respond to customers—whether in person at the office or via communication channels like WhatsApp—as well as a lack of consistency in providing follow-up updates regarding service progress. This indicates that while staff demonstrate good initial responsiveness, there remains a shortcoming in maintaining continuous communication throughout the service process.

In the assurance dimension, the coding highlights the organization's efforts to build a sense of security and customer trust. The identified codes include the clarity of information provided to customers as well as specific policies such as the waiver of late fees or payment relief under certain conditions. These findings

indicate that despite service delays, the organization continues to strive to maintain customer trust through clear communication and supportive policies.

Finally, in the empathy dimension, the coding results show that service interaction is one of the key strengths. The codes that emerged include staff friendliness, a helpful attitude, politeness in communication, and attention to customer needs. Customers generally assess that staff, ranging from security guards to customer service representatives, provide good and helpful service. This indicates that the empathy dimension has functioned quite effectively in creating a positive service experience for customers.

Table 4.1 of Interview Data Coding Results (External & Internal)

Quotes From Sources (External)	Quotes From Sources (Internal)	Initial Code	Category
“ In my neighborhood, the most common problem is that the meters break down. It’s not just me—my neighbors have the same issue. “ <i>Cust 1</i>	“But yesterday, only two of the devices were in use. So this one was just sitting there. That’s why it took a little while to make it portable.” <i>MG</i>	Water Meter Facilities and Equipment	Tangibles
“From what I’ve heard from my neighbors, the water has been out for a while. “ <i>Cust 2</i>	“ All I know is that we have a portable meter, and we only have one of them. We only have one meter,	Water Distribution Infrastructure	Tangibles

	and it has to cover four areas. “ <i>SF</i>		
-	“The main complaint is that the network is slow, it's a bit sluggish. As for other equipment, like the scanner, we actually need one that's faster.” <i>SF</i>	Limitations of Technology Infrastructure	Tangibles
-	“For example, if the computer isn't powerful enough, it can slow down the network. “ <i>CS</i>	Limitations of Technology Infrastructure	Tangibles
“ It's pretty comfortable for me, it's not hot in here. It was really hot outside earlier. As for the cleanliness you asked about earlier, it's just standard—it's clean, that's all. “ <i>Cust 1</i>	-	Comfort and cleanliness of the service area	Tangibles
“ It's more than comfortable and clean, too. So, my rating is just okay for the facilities and amenities here. “ <i>Cust 2</i>	-	Comfort and cleanliness of the service area	Tangibles

“They said they’d check it in 10 days, but it’s been two weeks and they haven’t checked it at all” <i>Cust 1</i>	“If it hasn’t been resolved within one or two days, we’ll get a note about it. That’s exactly what we want to avoid. So it has to be resolved by the third day.” <i>MG</i>	Inconsistencies in service completion times	Reliability
“When I signed up, they said I’d be able to pay my bill in 5–7 days, but by the third day, they still hadn’t come to inspect the property... And I ended up paying about two weeks after I signed up.” <i>Cust 2</i>	“That’s just an estimate, a work estimate. We’re aiming for 10 days—the goal is to have everything installed within that timeframe, with the documentation and survey completed.” <i>SF</i>	Inconsistencies in service completion times	Reliability
“ If you’re really going to be late, you should let them know via WhatsApp, right? They asked for our WhatsApp numbers, after all. “ <i>Cust 1</i>	“So, if you ask me, building trust comes down to good communication—that’s the most important thing.” <i>MG</i>	Communication and follow-up on services	Responsiveness
“I sent a WhatsApp message to follow up, and the staff member came the very next day, even though it was late and not on time.” <i>Cust 2</i>	“I wonder if it’s confirmed. If it’s just that the surveyor is sick, well, surveyors usually only get sick for a day—he’ll still	Communication and follow-up on services	Responsiveness

	be able to go out in the field tomorrow.” <i>SF</i>		
-	“When a customer complains, no matter how well or how quickly we handle it, communication is essential.” <i>MG</i>	Prompt response from staff	Responsiveness
-	“Usually we respond, and then we coordinate with the relevant department—like the meter inspection department—regarding the issue.” <i>SF</i>	Prompt response from staff	Responsiveness
	“But we’ll make sure that customers who report an issue twice are prioritized and receive expedited assistance on-site.” <i>CS</i>	Prompt response from staff	Responsiveness
“The manager just explained it to me earlier—he said the fine will be waived until the meter is tested.” <i>Cust 1</i>	“Then there are other policies, like when a bill suddenly spikes—we don’t know if it’s due to a leak, so we might have to calculate the total first. Then we can set up an	Service Compensation Policy	Assurance

	installment plan; that's an option." <i>SF</i>		
"There's no guarantee or compensation of any kind, and personally, I don't think compensation is necessary either in New Installation. " <i>Cust 2</i>	"Plus, if they end up having to pay a fine, there will be a policy to waive it." <i>CS</i>	Service Compensation Policy	Assurance
"When I came in earlier, the security guard was really nice—he asked what the problem was and then directed me to the complaints department. The staff inside (at the complaints department) were also great; they explained everything clearly to me.....Overall, it was a good experience—the security guard was very helpful, and the staff inside were helpful too." <i>Cust 1</i>	"The key thing is that when someone files a complaint, we need to take action or follow up. When a customer calls, ideally we should visit them that very same day. But if we can't visit them that day, we should at least contact them, explain the situation, apologize that we haven't been able to resolve the issue yet, and assure them that we'll follow up further tomorrow." <i>MG</i>	The staff's friendliness and thoughtfulness	Empathy
"Everyone was great. From the security guards to the staff at registration, everyone was great—they	"What I really want is for customer complaints to be addressed quickly. Doesn't that make more sense?	The staff's friendliness and thoughtfulness	Empathy

explained things clearly and provided excellent service.” <i>Cust 2</i>	Like, if someone reports to the utility company, “Sir, the water pressure is low,” and they respond right away—people would definitely be happy.” <i>SF</i>		
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Source : Primary Data, Interview Results (2026)

4.2.2 Identify the Theme

1. Service Facilities and Technical Infrastructure

In this section, the discussion focuses on the technical facilities and infrastructure that support service delivery, particularly those related to operational activities in the field and administrative support systems. The subjects analyzed in this section include the availability and condition of water meters, portable meters, distribution infrastructure such as pipes and water pressure, as well as supporting technologies such as computers, networks, and scanners. Based on the interview results, several dominant keywords (initial codes) were identified, namely water meter facilities and equipment, water distribution infrastructure, and limitations of technology infrastructure. These findings indicate that technical aspects are one of the primary factors influencing the smooth operation of service delivery processes.

Regarding water meters and field operational equipment, internal stakeholders such as the MG, CS, and SF share the view that equipment shortages

are the primary obstacle in the service process. MG and SF agree that the number of available devices is insufficient, particularly regarding portable meters that must serve multiple regions simultaneously. This is reflected in the statement, “we only have one portable meter and it has to cover four areas,” as well as the situation where the available equipment cannot be fully utilized optimally, “only two of the devices were in use... that’s why it took longer.” CS also emphasized that the delays were not solely due to the system, but rather stemmed from equipment limitations, “we still lack the necessary equipment.” From an external perspective, Cust 1 shares a similar view regarding water meter issues, noting that meter malfunctions are a frequent problem in their neighborhood. Cust 1 stated, “the most common problem is that the meters break down... not just me, but my neighbors too.” This indicates that equipment limitations impact not only internal operations but are also directly felt by customers.

Furthermore, regarding water distribution infrastructure, CS and SF also share the view that the availability of pipes and water pressure are major obstacles in the service process, particularly for new connections. SF stated that “pipes on-site are insufficient... usually due to low water pressure,” while CS added that material shortages make the installation process more complex, “there are no pipes or materials... workers need time to determine the routing.” From the customer’s perspective, Cust 2 also felt the impact of these conditions, such as unstable water flow or temporary outages in their residential area. Although customers are not aware of the technical causes in detail, these experiences demonstrate a direct link between the state of the infrastructure and the quality of service received.

Regarding the technological infrastructure supporting service delivery—such as computers, networks, and scanners—SF and CS share the consistent view that the current technology systems are not yet optimal. SF noted that “the network is slow... it’s a bit sluggish,” while CS added that hardware limitations also affect system performance: “if the computer isn’t powerful enough, it can slow down the network.” Additionally, the need for faster scanners is another obstacle in administrative processes. This indicates that technological limitations not only impact internal work efficiency but also have the potential to slow down the overall service process.

Overall, this theme highlights that technical facilities and infrastructure remain one of the primary barriers to service delivery. Limitations in operational tools, distribution infrastructure, and supporting technology prevent service processes from running optimally. Therefore, improvements in technical facilities are essential to support operational effectiveness and enhance the quality of service provided to customers.

2. Physical Conditions and Comfort of the Service Area

In this section, the discussion focuses on the physical conditions of the service environment at the PDAM office, as directly experienced by customers. The aspects analyzed include the comfort of the waiting area, the cleanliness of the service area, room temperature, and the adequacy of supporting facilities within the

office. Based on the interview results, several keywords (initial codes) were identified, such as “comfort and cleanliness of the service area,” indicating that the physical aspects of service are a key indicator in shaping customers’ initial perceptions of service quality.

Regarding the comfort and cleanliness of the service area, Cust 1 and Cust 2 shared the view that the condition of the facilities inside the office was quite good and capable of providing basic comfort for customers. This is reflected in Cust 1’s statement, “it’s pretty comfortable... it’s not hot in here... it’s clean,” which shows that room temperature and cleanliness are the main factors in assessing comfort. A similar sentiment was expressed by Cust 2, who stated, “comfortable and clean... so my rating is just okay for the facilities,” indicating that the available facilities are adequate, though not yet considered exceptional. These findings suggest that, generally, the physical condition of the service area is not a primary source of customer complaints.

In addition, the comfort experienced by customers is also supported by a well-maintained environment that does not cause discomfort during the service process. Both Cust 1 and Cust 2 emphasized that simple factors such as a cool room and clean conditions are sufficient to provide a good service experience. This indicates that customers’ expectations regarding physical facilities tend to be functional in nature; that is, as long as basic needs such as comfort and cleanliness are met, the service is considered adequate.

However, although not a primary issue, this finding still indicates that the physical condition of the facilities falls into the “adequate” category and has not yet reached an optimal level. Ratings such as “just okay” indicate that there is still room for improvement, especially if the organization wishes to elevate service quality to a higher level. In other words, although current facilities are capable of meeting customers’ basic needs, improving the quality of the service environment remains necessary to create a better service experience.

Overall, this finding indicates that the physical conditions and comfort of the service areas at the PDAM office are already adequate and do not constitute a major obstacle to service delivery. However, improving the quality of facilities should still be considered as part of a broader effort to enhance customer satisfaction.

3. Timeliness and Consistency of Service

In this section, the discussion focuses on the timeliness of service and the consistency between the estimates provided to customers and actual on-site performance. The areas analyzed include service time estimates, the duration of new connection installations and meter testing, as well as the factors causing delays. Based on the interview results, several keywords (initial codes) were identified, such as “inconsistencies in service completion times,” indicating a discrepancy between established time standards and actual on-site implementation.

Internally, MG, SF, and CS believe that actual service time estimates have already been established and are used as a benchmark in the work process. SF explained that there are specific time targets for service completion, such as a 10-day estimate for new connection processes: “We’re aiming for 10 days... everything should be completed within that timeframe.” Additionally, MG also emphasized that any delays will be taken into account in performance evaluations, where there is a tolerance limit for completion time to ensure targets are not exceeded. This indicates that, system-wide, the organization has clear service time standards in place.

However, from the customers’ perspective, Cust 1 and Cust 2 pointed out a discrepancy between the estimates and the actual results on-site. Both Cust 1 and Cust 2 stated that the service they received often took longer than promised. This is evident from Cust 1’s statement, “they said they’d check it in 10 days, but it’s been two weeks and they haven’t checked it,” as well as Cust 2’s remark, “they said 5–7 days, but I ended up paying about two weeks after I signed up.” These findings indicate a gap between the expectations formed through initial information and the customers’ actual experience during the service process.

In addition, the delays that occurred are also related to various operational factors identified in the previous section, such as equipment limitations, field conditions, and a high volume of work. Although from an internal perspective these delays can be understood as part of technical challenges, from the customer’s perspective they are still viewed as inconsistencies in service. This indicates that

the established time standards have not yet been fully implemented consistently in the field.

Overall, this theme demonstrates that although PDAM has clear service time estimates and targets, their implementation remains inconsistent. The discrepancy between estimates and actual results is one of the primary sources of customer dissatisfaction. Therefore, improvements in service time management are necessary so that the processes carried out can better align with established standards and more effectively meet customer expectations.

4. Responsiveness and Communication

In this section, the discussion focuses on how PDAM Tirta Kencana Samarinda responds to customer needs and complaints, both at the initial contact stage and during the ongoing service execution process. The aspects analyzed include the promptness of staff responses at the service counter and through digital channels such as WhatsApp, the internal coordination process between departments following complaint receipt, and the consistency of follow-up communication provided to customers when service delays occur. Based on the interview results, several dominant initial codes were identified, namely prompt initial response from staff, internal coordination and complaint forwarding, and follow-up communication consistency. These findings indicate that responsiveness in service

delivery encompasses not only the speed of first contact but also the quality and continuity of communication throughout the entire service process.

Regarding the promptness of staff response, MG, SF, and CS consistently agreed that a rapid and clear response to every customer complaint is a core principle of service quality. MG emphasized that any incoming complaint must always receive a concrete follow-up action: "when a customer complains... there must be action or follow-up." CS further explained that the standard complaint handling procedure begins with immediate acknowledgment at the counter, followed by forwarding the case to the relevant department, whether the field team or the meter inspection unit, depending on the nature of the issue. This indicates that the organization already has a structured initial response workflow that is understood and applied by all service personnel.

From the customers' perspective, Cust 1 and Cust 2 confirmed that staff responsiveness at the initial contact stage was experienced positively. Cust 1 stated that upon reporting an issue at the counter, staff immediately took action by contacting the field team: "they directly called the field team to ask about my case." Similarly, Cust 2 noted that when following up via WhatsApp, responses from staff arrived quickly: "when I followed up via WhatsApp, the staff responded quickly." These accounts from Cust 1 and Cust 2 indicate that the speed and attentiveness of first-contact responsiveness has been consistently delivered across different service channels.

However, Cust 1 and Cust 2 also pointed out that this initial responsiveness was not consistently sustained throughout the service resolution process. Both Cust 1 and Cust 2 noted that despite receiving prompt initial responses, the actual execution of follow-up actions in the field did not always proceed with the same urgency, resulting in customers continuing to experience delays even after their complaint had been acknowledged. This divergence between initial responsiveness and field execution suggests that while the organization's first-contact response mechanisms are functioning effectively, the handover and monitoring processes between the office and field teams require strengthening to ensure responsiveness is maintained across the full service cycle.

Regarding communication during service delays, MG, SF, and CS acknowledged the importance of keeping customers informed when service timelines are affected by operational challenges. MG stated that customers should always be contacted and given an explanation when problems arise: "we call to let the customer know what the problem is," emphasizing that transparent communication is fundamental to maintaining customer trust. However, in practice, both Cust 1 and Cust 2 described communication as primarily reactive rather than proactive. Cust 1 noted that customers should be notified of delays without having to follow up first: "if it's late, they should inform us via WhatsApp," while Cust 2 indicated that meaningful communication typically only occurred after the customer had initiated contact themselves. This gap between the organization's stated communication values and customers' actual experiences reveals that

proactive communication during service execution remains an area requiring significant operational improvement.

Overall, this theme reveals that responsiveness at PDAM Tirta Kencana Samarinda demonstrates a clear divide between its performance at the initial contact stage and its consistency during subsequent service delivery. While first-contact responsiveness is perceived positively by customers, the follow-up communication process remains inconsistent and dependent on customer-initiated follow-up rather than organizational initiative. This finding indicates that responsiveness as a service quality dimension is currently only partially realized, and that bridging the gap between initial response quality and ongoing communication consistency is essential for improving the overall service experience.

5. Service Policies and Assurance

In this section, the discussion focuses on how the service policies implemented by PDAM Tirta Kencana Samarinda shape customers' sense of security and trust in the organization, particularly in situations where service delays or disruptions have occurred. The aspects analyzed include the policy of prioritizing service for customers who submit repeated complaints, the conditional waiver of late fees for meter testing services, and the extent to which these policies are communicated and applied consistently across different customer cases. Based on the interview results, several dominant initial codes were identified, namely service prioritization policy for repeat complainants, conditional penalty waiver for meter testing delays, and customer perception of policy fairness. These findings indicate

that organizational policies represent an active mechanism through which PDAM seeks to build and maintain customer trust, directly corresponding to the assurance dimension of service quality.

Regarding the service prioritization policy, SF and CS explained that when customers submit repeated complaints regarding the same unresolved issue, their cases are escalated and given priority in the service queue. CS stated that this mechanism is intended to prevent long-standing unresolved complaints from being overlooked within the normal workflow, ensuring that persistent issues receive attention proportionate to their urgency. This policy reflects an organizational awareness that standard processing timelines may not always be sufficient to meet the needs of customers who have already experienced extended delays, and that proactive escalation mechanisms are necessary to maintain service equity.

Regarding the conditional waiver of late fees, SF and CS clarified that this policy applies specifically to the meter testing service, and only in circumstances where delays in the inspection process arise from reasons that are beyond the customer's control. CS confirmed that in such cases, the accumulated late fee is suspended until the meter testing has been completed: "the fine will be waived until the meter is tested." This policy is particularly relevant given the service reliability issues identified in the previous theme, where meter inspection delays were frequently reported as a source of customer concern. By removing the financial penalty associated with delays caused by the organization's own operational constraints, PDAM demonstrates a degree of accountability toward its customers.

From the customers' perspective, Cust 1 confirmed that the existence of the penalty waiver policy provides meaningful peace of mind during a period of service uncertainty. Cust 1 stated that knowing the fine would be waived until the meter was tested alleviated concerns about accumulating charges while waiting: "the fine will be waived until the meter is tested." Meanwhile, Cust 2 took a more measured view, noting that while compensation is not always provided, delays within a reasonable timeframe are still tolerable. Cust 1 and Cust 2 both acknowledged the positive intent behind the policy, though their responses suggest that its impact on overall customer trust depends significantly on individual circumstances and expectations.

However, an important limitation of the current policy structure is its restricted scope. Both the prioritization mechanism and the penalty waiver apply only under specific conditions—the former to customers who have submitted multiple complaints, and the latter exclusively to meter testing services. This means that customers experiencing delays in other service types, such as new connection installations, do not benefit from equivalent protective measures. The selective application of these policies has the potential to generate perceptions of inconsistency or inequity among customers who face comparable service disruptions but fall outside the defined eligibility criteria, which may in turn undermine rather than reinforce the sense of assurance that these policies are intended to provide.

Overall, this theme indicates that the service policies currently in place at PDAM serve a constructive function in managing customer trust during service

failures, and reflect an organizational commitment to maintaining customer satisfaction even when operational performance falls short. However, their limited scope and the absence of proactive communication about their existence and eligibility criteria represent significant gaps in the organization's ability to fully deliver on the assurance dimension of service quality. Ensuring that customers are aware of available protections—and that those protections extend equitably across service types—is essential for these policies to function as effective tools for building and sustaining customer trust on a consistent basis.

6. Service Interaction and Staff Empathy

In this section, the discussion focuses on the direct interaction between staff and customers, particularly regarding the staff's friendliness, politeness, thoughtfulness, and willingness to assist customers throughout the service process. The analysis examines how staff interact with customers from the moment they arrive, the manner in which they provide explanations, and the simple gestures of care that customers perceive. Based on the interview results, several keywords (initial codes) were identified, such as "the staff's friendliness and thoughtfulness," indicating that the aspect of human interaction is one of the strengths of the service.

From the customers' perspective, Cust 1 and Cust 2 consistently felt that the interactions with the staff were excellent. Cust 1 and Cust 2 agreed that from the moment they arrived, they were treated in a friendly and helpful manner. This is

evident from Cust 1's statement, "the security guard was really nice... he asked what the problem was and directed me," as well as their experience inside the office where staff provided clear explanations. Cust 2 also shared a similar experience, "everyone was great... from the security guards to the staff at registration, they explained everything clearly." Furthermore, the form of hospitality experienced by customers was not limited to verbal communication but also included simple actions such as helping direct them to the correct department, explaining the registration forms, and providing service with a polite and unhurried attitude. This indicates that customers felt a sense of attention and care from the staff throughout the service process.

Internally, MG, SF, and CS also emphasized the importance of attitude in providing service. CS stated that friendliness is one of the key principles in serving customers: "First, be friendly and courteous... that will lead to positive feedback from customers." Additionally, MG emphasized that service does not end with problem resolution, but also involves how customers feel cared for throughout the process. This indicates that empathy and service attitude have become integral parts of the organization's work culture. These findings suggest that service interactions are a key strength in PDAM's service quality. A friendly and courteous attitude, along with a willingness to help, provides customers with a positive experience—even when technical issues or service delays arise. In other words, despite some operational shortcomings, the quality of interactions between staff and customers helps maintain a positive perception of the services provided.

Overall, this theme indicates that empathy and service interactions are already functioning very well and have become a key strength in customer service. Therefore, it is important for organizations to maintain and even improve the quality of these interactions as part of their efforts to ensure customer satisfaction and loyalty.

4.2.3 Thematic Analysis

The thematic analysis indicates that the quality of service provided by PDAM Tirta Kencana Samarinda in its daily operations remains inconsistent between in-office and on site services. In-office services generally function well, supported by adequate facilities and positive interactions between staff and customers. However, at the on-site operational level, service quality tends to decline due to limited facilities and infrastructure, as well as technical constraints that affect the service completion process.

Additionally, it was found that the primary issues in service quality are not limited to technical aspects but also involve inconsistencies in service processes. Delays in service completion, discrepancies between estimated and actual processing times, and suboptimal follow-up with customers indicate that the service system is not yet operating in an integrated manner. This suggests that the dimensions of reliability and responsiveness remain weak points in service operations.

In terms of problem-solving, the organization has demonstrated commendable efforts in maintaining customer relations, particularly through the provision of clear information and specific policies such as the waiver of penalties under certain conditions. However, the approach taken remains largely reactive—responding to issues after they arise rather than preventing them from the outset. This indicates that efforts to improve service quality have not yet been fully grounded in comprehensive system improvements.

Overall, it can be concluded that the service quality of PDAM Tirta Kencana Samarinda is influenced by a combination of facility conditions, operational resource constraints, and the effectiveness of internal communication and coordination. The primary strength lies in the empathy and interaction of staff with customers, while the main weaknesses are in on site operations and service consistency. These findings serve as the basis for further discussion in the following section regarding strategies for improving service quality and practical implications that can be implemented.

4.3 Discussion of Results

Based on an analysis of primary data obtained through interviews with internal and external stakeholders, it was found that several dimensions of service quality are priorities for service improvement at PDAM Tirta Kencana Samarinda. The most prominent dimensions identified were tangibles, reliability, and responsiveness, which are directly related to the condition of facilities, the

timeliness of service, and the speed and consistency of staff responses. These three dimensions are prioritized because they were most frequently mentioned in respondents' statements and directly influence the smoothness of service processes, both at the administrative stage and during on-site implementation.

The tangibles dimension is a primary concern because limitations in technical facilities—such as meters, networks, and computers—as well as distribution infrastructure—such as pipes and water pressure—have been shown to hinder service delivery. Meanwhile, the reliability dimension is crucial due to discrepancies between estimated service times and actual on-site performance, which create a sense of uncertainty among customers. On the other hand, the responsiveness dimension also needs to be prioritized because, although the initial response of staff is considered quite good, there are still weaknesses in the consistency of follow-up and communication with customers, particularly regarding service delays.

Nevertheless, other dimensions such as assurance and empathy show relatively better results. Customers tend to assess that staff are friendly, helpful, and able to provide sufficiently clear explanations, even supported by specific policies such as the waiver of fines under certain conditions. This indicates that the service interaction aspect is already functioning quite well, so the primary focus of improvement should be directed toward dimensions of a systemic and operational nature. Therefore, the following discussion will delve deeper into each of these

dimensions to understand the root causes of the issues and their implications for service quality.

4.3.1 Service Facilities and Technical Infrastructure

The research findings indicate that limitations in technical facilities and operational infrastructure are among the primary obstacles in the service delivery process at PDAM Tirta Kencana Samarinda. Technical facility limitations in this context include the restricted availability of portable meters, as well as constraints in supporting technology such as computers, scanners, and network systems used in administrative processes. Meanwhile, operational infrastructure limitations refer to the availability of physical distribution components, particularly water pipes and water pressure conditions in certain service areas. These two aspects are interconnected and play a significant role in determining the effectiveness of both administrative and field service activities.

According to the theory used in this research, namely the SERVQUAL model developed by A. Parasuraman, Valarie Zeithaml, and Leonard Berry, this condition is closely related to the **tangibles** dimension, which emphasizes the importance of adequate equipment, physical facilities, and supporting resources in ensuring optimal service delivery. Limitations such as the limited number of portable meters, which can only serve a limited scope of operations at a time, directly slow down inspection and installation processes in the field.

From the water distribution perspective, the limitation of pipe availability indicates that in several areas the required pipeline infrastructure is not yet fully available. This condition leads to delays in new connection services, as field staff must first identify or prepare suitable pipe routes before installation can be carried out. In addition, inconsistent water pressure in certain locations further complicates the process and affects service outcomes. This aligns with the view of Johnston, Clark, and Shulver (2012) that the capacity of physical infrastructure is a fundamental factor determining whether service processes can be delivered in accordance with established standards.

Limitations in supporting technology—such as low-specification computers, slow network performance, and less efficient scanners—also affect the work efficiency of administrative staff, as noted by SF and CS. These technological constraints extend data processing time and may disrupt the overall service workflow, particularly during administrative stages that are expected to be completed promptly. Lovelock and Wirtz (2016) emphasize that continuous investment in service technology is essential, as outdated systems can become bottlenecks within the service process.

Interestingly, these limitations are not only experienced internally but are also reflected in customer experiences. Cust 1 reported that water meter malfunctions frequently occur and are not limited to individual cases but are also experienced by other residents in the same area. This suggests that the issue may be systemic, particularly in terms of equipment maintenance and reliability.

Fitzsimmons and Fitzsimmons (2014) explain that inadequate preventive maintenance can lead to recurring equipment failures, which ultimately increase operational challenges and reduce service quality.

The gap between existing facility conditions and expected service standards reflects a resource gap within the organization, where available resources are not fully sufficient to meet service demand. This situation is further influenced by the limited usability of certain equipment, resulting in actual service capacity being lower than its potential. Grönroos (2015) highlights that the technical quality of a service is strongly influenced by the organization's ability to provide and manage adequate resources to support service operations.

Overall, the findings in this theme indicate that improvements in facilities and technical infrastructure can be a priority for PDAM in enhancing service quality. This limitation could be addressed through better support in terms of equipment availability, infrastructure development, and technology upgrades. Strengthening these aspects would help reduce operational barriers and support a more efficient and reliable service delivery process in both administrative and field activities.

4.3.2 Physical Conditions and Comforts of the Service Area

The physical condition and comfort of service areas are among the elements that shape customers' first impressions of an organization's service quality. In the

SERVQUAL model, this aspect falls under the tangible dimension, which encompasses the appearance of physical facilities, cleanliness, and the comfort of the environment where services are provided (Parasuraman, Zeithaml & Berry, 1988). Research findings indicate that customers of PDAM Tirta Kencana Samarinda rate the condition of service areas as fairly good, particularly regarding cleanliness and well-maintained room temperature.

Cust 1 and Cust 2 described the physical condition of the service office as "quite comfortable" and "clean," indicating that basic comfort needs have been met, although the experience has not yet reached a fully satisfactory level. This aligns with the concept of Customer Expectation, which distinguishes between desired service — what customers ideally hope to receive — and adequate service — the minimum level they are still willing to accept (Zeithaml, Berry & Parasuraman, 1993). The ratings given by both customers suggest that PDAM's physical environment currently sits within the zone of tolerance, meeting adequate service standards but falling short of desired service levels. This means that while physical facilities are not the primary source of complaints, there is significant room for improvement if the organization aims to provide a truly satisfying experience.

Customers tend to evaluate physical facilities functionally, where the most important factor is whether the space feels comfortable and clean during the service process. This perspective reflects that customers' expectations regarding the tangible aspects of public services are generally not as high as their expectations for private services, yet they remain a factor influencing overall perception. In this

context, Slack, Brandon-Jones, and Johnston (2013) state that the physical environment of a service acts as an initial signal for customers to assess how seriously an organization prioritizes the comfort of its service users.

Although the current physical conditions do not elicit serious complaints, the "just adequate" rating given by Cust 2 suggests that the existing facilities are not yet sufficiently impactful to create a positive and memorable service experience. A positive service experience is built not only through interactions with staff but also through a physical environment designed to make customers feel valued and comfortable while waiting. Bitner (1992) introduced the concept of the servicescape, emphasizing that the design and condition of the physical environment significantly influence customers' perceptions of overall service quality.

Improving the quality of physical facilities should be viewed not merely as fulfilling aesthetic needs, but as part of a strategy to enhance the overall customer experience. A more comfortable waiting area, a clear queuing system, and adequate supporting facilities can create a professional impression that ultimately strengthens customer trust in the organization. Lovelock and Wirtz (2016) explain that a well-designed servicescape can reduce negative perceptions of waiting times and increase customer tolerance when facing obstacles in the service process.

Overall, the physical conditions and comfort of the service areas at PDAM Tirta Kencana Samarinda already meet the minimum standards expected by customers, but still require improvement to truly leave a positive impression. Given

that physical aspects are the first thing customers notice upon arriving at the office, PDAM could realistically improve its service environment through several practical steps, such as providing more comfortable seating, installing a queue management system, and ensuring consistent cleanliness maintenance. These improvements directly address the gap between adequate and desired service levels, helping to shift customer perceptions from mere tolerance toward genuine satisfaction (Wirtz & Lovelock, 2021). Continuous improvements in this area, therefore, need to be incorporated into a planned and sustainable service quality improvement program.

4.3.3 Timeliness and Consistency of Service

Timeliness and consistency of service are at the core of the reliability dimension in the SERVQUAL model, defined as an organization's ability to deliver services accurately and in accordance with what has been promised to customers (Parasuraman, Zeithaml & Berry, 1988). Research findings indicate a significant gap between the estimated service times communicated to customers and the actual completion times they experience in practice. This gap is not merely technical but also directly impacts customers' perceptions of the organization's reliability and integrity.

Internally, the organization already has clear service completion time standards, such as a 10-day target for new connection processes, as mentioned by MG and SF. However, these standards have not been consistently applied in the field, as reflected in complaints from customers who received service far beyond

the provided estimates. Zeithaml, Bitner, and Gremler (2018) explain that an organization's failure to meet service promises, no matter how minor, erodes customer trust more deeply than other technical failures.

To reinforce these findings, secondary data from the Subscription Connection (SL) records of PDAM Region 1 Samarinda was used as concrete supporting evidence. This data records the average completion time for new connections from March to June, with the results presented in the following table.

Table 4.2 Average Time to Complete New Connections (days)

No	Process Stage	March	April	May	June
1	Registration – Survey	4.5	8.4	5.2	4.7
2	Survey – Manager Approval	0.9	0.5	2.3	0.6
3	Approve Manager – Customer WhatsApp	1.1	1.1	2.5	2.4
4	Customer WhatsApp – Installation	6.1	4.0	4.6	1.7
5	Total Time (average)	12.7	15.4	17.7	9.5

Source: Secondary Data from SL PDAM Region 1 Samarinda (March–June 2025)

Based on the data in the table above, the total service completion time fluctuated significantly over the four-month observation period, namely 12.7 days in March, increasing to 15.4 days in April, peaking at 17.7 days in May, then dropping sharply to 9.5 days in June. This considerable fluctuation indicates that the level of service consistency remains highly dependent on operational conditions that vary from month to month. Slack, Brandon-Jones, and Johnston (2013) assert

that high variability in service time is a clear indication of weak control over operational processes, which ultimately leads to uncertainty experienced by customers.

Upon closer examination by stage, it is evident that delays are not evenly distributed across all processes but are concentrated at specific operational points in the field. For example, in April, the Registration–Survey stage was the slowest with an average of 8.4 days, while in March, the greatest delay was actually in the Customer WA–Installation stage, reaching 6.1 days. This shifting pattern of bottlenecks indicates that obstacles in the service process are dynamic and cannot be resolved simply by speeding up a single specific stage.

A comparison between administrative and operational stages also provides a clear picture: administrative stages such as Survey–Manager Approval and Manager Approval–Customer WA generally require significantly less time compared to field stages. This underscores that the primary source of delays lies not in internal administrative processes, but in technical field operations influenced by various factors such as workforce availability, site conditions, and material availability. Fitzsimmons and Fitzsimmons (2014) explain that in public service “,” critical time management points are often found in back-end processes directly linked to physical conditions on-site.

Overall, the findings on this theme indicate that issues regarding the timeliness and consistency of PDAM services are not merely occasional problems but rather recurring and systemic patterns. The necessary improvements are

therefore not only at the technical operational level but also in the system for monitoring and communicating service progress to customers. As a realistic contribution, PDAM could implement internal deadline alerts for each process stage, and provide proactive updates to customers via WhatsApp when delays are anticipated. These steps align with Expectancy Theory, which argues that satisfaction is determined by the gap between customer expectations and actual experience — meaning that managing expectations through timely communication can reduce dissatisfaction even when service takes longer than promised (Van Ryzin, 2015). Without stricter control mechanisms over completion times at every stage, this gap between service promises and on-site reality will continue to be the primary source of customer dissatisfaction.

4.3.4 Responsiveness and Communication

Research findings indicate that the responsiveness of PDAM Tirta Kencana Samarinda's services exhibits an uneven pattern: strong during the initial contact phase, but lacking consistency in follow-up and communication as the service process unfolds. Internally, MG, SF, and CS share the understanding that every customer complaint must be addressed promptly and clearly, with a structured handling process from the initial response through coordination with relevant departments. However, from the customers' perspective, Cust 1 and Cust 2 reported that while staff's initial responses were rated positively, the execution of follow-up actions on the ground often lacked the same sense of urgency, resulting in customers still experiencing delays even after their complaints had been acknowledged.

This condition is directly related to the responsiveness dimension in the SERVQUAL model, which is defined as the service provider's willingness and ability to assist customers and provide services promptly (Parasuraman, Zeithaml, & Berry, 1988). Yusefi et al. (2022), in their study on responsiveness in public service facilities, found that customers' perceptions of responsiveness are shaped not only by the speed of the initial response but also by the organization's sustained attention throughout the complaint-handling process. When a good initial response is not followed by consistent follow-up in the field, customers tend to perceive the overall service as unresponsive—even if the first impression received was positive.

Reactive communication issues were also a significant finding in this theme. Cust 1 stated that customers should receive delay notifications without having to contact the water utility first, while Cust 2 indicated that meaningful communication only occurred after the customer followed up on their own. Amorim et al. (2020), in their study on delivery service attributes, found that proactive delay notifications are one of the factors most valued by customers and contribute significantly to their satisfaction and trust in service providers. This finding confirms that the transition from reactive communication patterns to proactive and standardized communication is a crucial step that must be prioritized in efforts to improve the quality of PDAM services.

The gap between the quality of the initial response and the consistency of follow-up identified in this study also reflects coordination challenges between front-office units and field teams. Van Vaerenbergh et al. (2012) emphasize that

effective recovery communication—that is, clear and timely information provided to customers during the problem-handling process—significantly improves customer satisfaction, the intention to use the service again, and positive word-of-mouth communication. The implication of these findings is that PDAM needs to strengthen internal coordination mechanisms between service staff and field teams, as well as establish a more proactive communication system toward customers. In practical terms, this could be realized by integrating a shared progress update system between front-office and field teams, and setting up an automated WhatsApp notification to inform customers of any delays without requiring them to follow up first. Expectancy Disconfirmation Theory supports this approach, suggesting that proactive communication helps recalibrate customer expectations before dissatisfaction forms (Van Ryzin, 2015). This also reinforces the responsiveness dimension of SERVQUAL (Parasuraman, Zeithaml & Berry, 1988), which emphasizes that responsiveness must be sustained consistently throughout the entire service cycle, not only at the initial contact stage.

4.3.5 Service Policies and Assurance

On the other hand, the service policies implemented by PDAM—such as those mentioned by CS regarding priority handling for customers who report issues repeatedly and the waiver of penalties under certain conditions—serve as service recovery mechanisms that help restore customer satisfaction affected by delays. Pratap and Jayasimha (2022) found that fair and targeted organizational responses

to service failures, including in the form of financial relief, significantly improve recovery satisfaction and maintain customer loyalty. Thus, although inconsistencies in service time still occur, the existence of such policies has proven capable of mitigating their negative impact on overall customer perception.

This policy also reflects the assurance dimension of the SERVQUAL model, namely an organization's ability to instill trust and a sense of security in customers through the knowledge and courtesy of its employees (Parasuraman, Zeithaml, & Berry, 1988). When staff actively communicate leniency policies to customers experiencing difficulties, this reinforces customers' confidence that they will not be unfairly penalized even in the event of service failures. Van Ryzin (2015) emphasizes that in the context of public services, administrative processes perceived by citizens as fair and responsive contribute significantly to their positive evaluation of overall service quality.

However, it should be emphasized that the scope of this policy remains limited—the waiver of penalties applies only to meter testing services and does not yet cover all types of delays experienced by customers. This limitation has the potential to create a perception of unfairness among customers who experience similar delays in other types of services but do not receive equivalent relief, which in turn could undermine the assurance dimension itself. Therefore, the scope of PDAM's service recovery policy needs to be standardized and proactively communicated to all customers. In practical terms, PDAM could expand the penalty waiver policy to cover a broader range of service delay types, and distribute clear information about available relief mechanisms through accessible channels such as

WhatsApp broadcasts or notice boards at the service office. This aligns with Expectancy Disconfirmation Theory, which suggests that when customers receive treatment that meets or exceeds what they anticipate their overall satisfaction and trust in the organization are preserved, contributing tangibly to long-term customer trust (Cheng et al., 2019).

4.3.6 Service Interaction and Staff Empathy

Empathy in the context of public service refers to the staff's ability and willingness to understand customer needs and provide personal attention throughout the service process. The empathy dimension in the SERVQUAL model encompasses staff concern, friendliness, and sincerity in serving each customer as an individual with unique needs (Parasuraman, Zeithaml & Berry, 1988). Research findings indicate that this aspect is one of the key strengths of PDAM Tirta Kencana Samarinda, where customers consistently give positive ratings regarding staff friendliness and responsiveness.

The customer's positive experience begins the moment they arrive at the service office, where security personnel are already friendly and proactively direct them to the correct location. This positive first impression fosters a sense of safety and comfort that extends throughout the entire service process within the office, including interactions with registration staff and counter attendants. According to Grönroos (2015), the quality of human interaction in service is a key component of functional quality, which often leaves a stronger impression on customers' memories than the technical aspects of the service itself. This is directly relevant to

Perceived Service Quality, which Brady and Cronin (2001) argue is shaped not only by service outcomes but also by the quality of interactions experienced throughout the service process.

Staff who provide explanations patiently, without rushing, and using language that is easy to understand serve as a significant added value for customers who may not be familiar with PDAM's administrative procedures. This attitude reflects a service culture that is deeply ingrained within the organization, as acknowledged by MG and CS, who regard friendliness as a behavioral standard that must be upheld. Lovelock and Wirtz (2016) emphasize that a genuine service attitude cannot be imposed from the outside but must grow from organizational values internalized by every member.

Interestingly, this high-quality interaction has proven capable of acting as a buffer when customers face technical obstacles or delays in the service process. Customers who feel treated well and valued tend to be more tolerant of technical inconveniences, as they perceive that staff have done their best to assist them. Caceres and Paparoidamis (2007) found that the quality of interpersonal relationships between service providers and customers acts as a buffer that protects customer satisfaction from the negative impact of occasional technical failures. This buffering effect reflects how perceived service quality is cumulative — a consistently positive interaction quality can sustain favorable overall perceptions even when other dimensions of service fall short (Cronin & Taylor, 1992).

From an internal perspective, MG and CS also emphasize that service does not end when technical issues are resolved, but also encompasses how customers feel treated and valued throughout the entire process. This awareness indicates that the organization understands the importance of customer-centricity — prioritizing customer experiences and feelings in every service interaction. Johnston, Clark, and Shulver (2012) explain that organizations successfully embedding empathy into their work culture gain a competitive advantage that is difficult to replicate, as human qualities cannot be replaced by technology or procedures alone.

Overall, service interactions and staff empathy stand out as the most prominent strengths in the service quality of PDAM Tirta Kencana Samarinda. Although there are still shortcomings in infrastructure and consistency of service delivery, the warm and attentive nature of these interactions serves as a crucial pillar in maintaining customer's perceived service quality at an acceptable level. To sustain and further develop this strength, PDAM could realistically invest in regular empathy-based training for all customer-facing staff, and establish a simple feedback mechanism — such as a post-service satisfaction rating via WhatsApp — to monitor service interaction quality consistently. This aligns with Expectancy Disconfirmation Theory (Glaveli et al., 2021), which suggests that when interpersonal service quality consistently meets or exceeds customer expectations, it creates positive disconfirmation that buffers overall satisfaction even when technical aspects fall short. Moving forward, maintaining and continuously developing this culture of empathy will be the most valuable investment in efforts to improve perceived service quality sustainably.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Based on the overall findings of this study, the quality of service at PDAM Tirta Kencana Samarinda is influenced by a combination of technical, operational, and interpersonal factors that interact throughout the service process. The results demonstrate that service quality cannot be viewed from a single dimension, as each stage of service delivery—from administrative processes to field execution and customer interaction—contributes to the overall customer experience. This indicates that improving service quality requires a comprehensive approach that addresses both system performance and human interaction simultaneously.

From the tangibles dimension, the findings show that limitations in technical facilities and operational infrastructure are among the most critical obstacles affecting service delivery. These limitations include the restricted availability of portable meters, inadequate supporting technology such as computers, scanners, and network systems, as well as insufficient water distribution infrastructure in certain areas. In particular, the lack of pipeline availability in some locations leads to delays in new connection installations, as field staff must first determine or prepare the appropriate routes before proceeding. These conditions highlight the

importance of strengthening infrastructure capacity and ensuring that operational tools are sufficient to meet service demands.

In terms of reliability, the study reveals a significant gap between the estimated service timelines communicated to customers and the actual time required to complete the service. Although the organization has established standard service targets, their implementation in practice remains inconsistent and fluctuates depending on operational conditions. The analysis of secondary data further confirms this issue, showing variations in service completion time across different periods and stages. This inconsistency creates uncertainty for customers and weakens their perception of the organization's ability to deliver services as promised.

Regarding the responsiveness dimension, the findings indicate that staff generally provide prompt and positive initial responses to customer inquiries and complaints. However, this responsiveness is not consistently maintained throughout the entire service process, particularly in follow-up actions in the field. Customers often need to initiate further communication to obtain updates, reflecting a reactive rather than proactive communication approach. This suggests that improving responsiveness requires not only faster initial responses but also more structured and continuous communication mechanisms during service delivery.

The assurance dimension is reflected in the implementation of service policies aimed at maintaining customer trust, such as priority handling for certain cases and penalty waivers under specific conditions. These policies function as

service recovery mechanisms that help mitigate the negative impact of delays and service disruptions. However, the scope of these policies is still limited, particularly as penalty waivers are primarily applied to meter testing services. This limitation indicates the need for more standardized and widely applicable policies to ensure fairness and strengthen customer confidence in the service system.

In contrast, the empathy dimension emerges as one of the strongest aspects of PDAM Tirta Kencana Samarinda's service quality. Customers consistently report positive experiences related to staff friendliness, politeness, and willingness to assist throughout the service process. From the initial interaction with security personnel to the assistance provided by administrative staff, customers feel supported and well-guided. This positive interpersonal interaction plays an important role in maintaining customer satisfaction, even when technical or operational issues are encountered.

Overall, the findings of this study indicate that while interpersonal aspects of service delivery are already well-established, technical and operational challenges remain the primary barriers to achieving optimal service quality. Therefore, efforts to improve service quality should focus on enhancing infrastructure capacity, improving service time consistency, and strengthening communication systems, while maintaining the existing strengths in customer interaction. By addressing these key areas, PDAM Tirta Kencana Samarinda can move toward a more balanced and sustainable service delivery system that better meets customer expectations.

5.2 Recommendation

5.2.1 Practical Recommendations

Based on the findings of this study, several practical recommendations can be proposed for PDAM Tirta Kencana Samarinda, particularly focusing on the priority dimensions identified, namely tangibles, reliability, and responsiveness.

First, it is recommended that the organization prioritize improvements in field operational capacity, especially in relation to technical facilities and infrastructure. This may include the gradual procurement of additional portable meter units, improvement of supporting technology such as computers and network systems, and ensuring the availability of pipeline materials in areas that currently lack infrastructure. Strengthening these aspects is expected to reduce delays in field operations, particularly in new connection and meter testing services.

Second, the organization is encouraged to enhance service reliability by developing a more structured and realistic service time management system. This can be achieved by aligning service time targets with actual field conditions, as well as utilizing the existing SL data to monitor service progress at each stage. Through more consistent monitoring, potential bottlenecks can be identified earlier, allowing for more timely adjustments in operational processes.

Third, in relation to the responsiveness dimension, it is advisable for the organization to improve the consistency of follow-up actions and communication throughout the service process. One approach that can be considered is the

implementation of a more proactive communication system, where customers receive regular updates regarding service progress or delays without needing to initiate contact. This would help reduce uncertainty and improve customer perceptions of service responsiveness.

Fourth, the organization may consider reviewing and gradually expanding the scope of existing service recovery policies, such as penalty waivers and prioritization mechanisms. Currently, certain policies—such as penalty waivers—are applied in specific cases like meter testing services. Expanding and standardizing these policies across different service types, accompanied by clear communication to customers, may contribute to a stronger sense of fairness and trust.

Fifth, it is recommended that the organization continue to maintain and strengthen its existing culture of empathetic service interaction. This can be supported through regular training, internal reinforcement of service values, and the integration of customer-oriented behavior into performance evaluation. Maintaining this strength is important, as positive interpersonal interaction has been shown to play a significant role in sustaining customer satisfaction despite operational constraints.

5.2.2 Managerial Implications

The findings of this study indicate that service quality challenges at PDAM Tirta Kencana Samarinda are largely influenced by systemic and operational factors

rather than solely by individual staff performance. Limitations in technical facilities, infrastructure availability, and process consistency suggest that managerial attention may be more effectively directed toward strengthening resource allocation and operational capacity. Improvements in these areas are expected to have a broader and more sustainable impact on overall service performance compared to focusing only on individual-level interventions.

In addition, the availability of operational service records, particularly through the SL records, provides an opportunity to support more evidence-based decision-making. Management could further utilize these data to monitor service performance across different stages, identify recurring bottlenecks, and evaluate variations in service completion times. A more systematic use of such data may help improve planning accuracy and enable more timely and targeted operational adjustments.

Furthermore, the integration between service operations and customer communication represents an important area for managerial consideration. Aligning service progress with consistent and proactive communication may help reduce customer uncertainty and improve overall service perception. By treating communication as an integral part of the service process rather than a separate activity, management can support the development of a more transparent, reliable, and customer-oriented service system.

5.2.3 Suggestions for Further Research

This study has several limitations that present opportunities for future research. As the study is conducted within a single operational region—PDAM Tirta Kencana Samarinda Region 1—its findings are inherently contextual and should be interpreted with appropriate caution regarding broader generalizability.

Future research is recommended to extend the scope of analysis to multiple PDAM service regions or to regional water utilities in other cities, enabling a more comprehensive comparative assessment of service quality patterns and determinants. A multi-site study would also allow for the examination of whether the bottleneck dynamics and reliability gaps identified here represent sector-wide phenomena or context-specific conditions.

Additionally, future research could employ a quantitative approach—using the SERVQUAL instrument in its standard survey format—to measure the relative magnitude of service quality gaps across dimensions and to statistically test relationships between individual dimensions and overall customer satisfaction. This would complement the qualitative depth of the present study with empirical breadth and generalizability. Further investigation into the long-term effectiveness of service recovery policies, such as the fee waiver mechanisms identified in this study, in sustaining customer loyalty and organizational trust would also constitute a valuable contribution to the public service quality literature.

5.2.4 Academic Based Strategic Recommendation

Based on the academic knowledge gained throughout the study program, three key strategies are recommended to address PDAM's most critical service quality issues. First, a Service Blueprint Redesign — drawing from Operations Management principles — to map and restructure the new connection and meter testing workflows, establishing clearer responsibility boundaries and measurable time standards at each stage to improve service consistency. Second, a **Proactive** Communication System — grounded in Marketing Communication and Digital Marketing — through implementing automated WhatsApp notifications at each service stage, shifting PDAM's communication pattern from reactive to proactive and reducing customer dissatisfaction caused by lack of updates. Third, Capacity and Resource Planning — informed by Strategic Operations Management — through a structured assessment of available resources against actual service demand, prioritizing investment in portable meters, distribution pipes, and technology upgrades as the foundational step upon which all other improvements depend.

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APPENDICES

Appendix 1. Internship Acceptance Letter from PDAM Tirta Kencana Samarinda



PERUMDAM TIRTA KENCANA KOTA SAMARINDA

JALAN TIRTA KENCANA NO. 1 SAMARINDA
☎ 0541 - 2088100 E-mail : smd@perumdamtirtakencana.id

Samarinda, 5 Februari 2025

Nomor : 400.14.5.4/71/II/2025
Lampiran : -
Penhal : Persetujuan Magang

Yth. Universitas Islam Indonesia
DI - Yogyakarta

Dengan hormat,

Menanggapi surat dari Universitas Islam Indonesia Nomor : 12/Kaprodi/10/Prodi.Mnj-IP/II/2025 tanggal 30 Januari 2025 perihal Permohonan Izin Magang, pada prinsipnya **dapat kami setuju** Magang di Perumdam Tirta Kencana Kota Samarinda sebanyak 1 (satu) orang Mahasiswa. Terhitung sejak tanggal 1 Maret 2025 – 1 Juli 2025. Adapun nama Mahasiswa tersebut sebagai berikut:

No	Nama	NIM	Program Studi	Penempatan/Divisi	Periode Magang
1	Muhammad Luthfi Azhar	22311049	Manajemen Program Internasional	Pelayanan WII I Keuangan	1 Maret 2025 - 30 April 2025 1 Mei 2025 - 1 Juli 2025

Demikian disampaikan dan diketahui untuk dipergunakan sebagaimana mestinya.

DIREKTUR UMUM,

YUSFIAN NOOR, S.E.

Tembusan:

1. Manajer Keuangan Perumdam Tirta Kencana Kota Samarinda;
2. Asisten Manajer Diklat Perumdam Tirta Kencana Kota Samarinda;
3. Asisten Manajer Pelayanan WII I Perumdam Tirta Kencana Kota Samarinda

Appendix 2. Internship Certificate



Appendix 3. Interview Questions

a. Questions for the Internal Staff of PDAM Tirta Kencana Samarinda

No.	Questions	Code
1	What facilities does PDAM have to provide services to customers?	TA.1
2	Based on my internship observation, delays often occur in meter testing and new connection installations, where some processes are fast while others are slow. In your opinion, are there any shortcomings in terms of facilities and infrastructure in handling customer issues?	TA.2

3	How does PDAM ensure that every service promised to customers is delivered according to the target or commitment?	RL.1
4	Are there any major constraints that cause delays in service delivery?	RL.2
5	How does PDAM respond to customer services, for example in new connection registrations or customer complaints related to service delays?	RS.1
6	Is the current number of staff sufficient to handle the increasing number of customer requests?	RS.2
7	What is the role of the manager in ensuring that each stage of service is carried out according to procedures and does not lead to customer dissatisfaction?	AS.1
8	How does PDAM maintain customer trust when delays or technical issues occur?	AS.2
9	How does PDAM understand and follow up on customer complaints? Are there specific efforts to provide extra attention to customers affected by service issues?	EM.1
10	In your opinion, how can PDAM improve emotional relationships and customer trust in order to create a positive public image?	EM.2

b. Questions for PDAM Tirta Kencana Samarina Customers (External)

No.	Questions	Code
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1	How would you assess the facilities and infrastructure available when visiting our office?	TA.1
2	Do the facilities in the service area, such as the waiting area and room cleanliness, provide sufficient comfort for you?	TA.2
3	What is your view on the condition of technical equipment used by field staff (such as pipes, water meters, or testing tools)?	TA.3
4	How would you describe your experience regarding the consistency of staff in handling complaints, both via WhatsApp and during face-to-face interactions at the office?	RL.1
5	If your complaint is not resolved in a single report, do staff take the initiative to follow up and provide updates on your issue?	RL.2
6	After follow-up actions are taken, is the problem eventually resolved within the time initially promised?	RL.3
7	To what extent do you perceive the promptness and speed of staff in processing your requests or complaints?	RS.1
8	How long does it take from the time you register (for a new connection) or report an issue (for meter testing) until the process is fully completed?	RS.2
9	If you had to follow up or revisit the office, in your observation, what factors contributed to that situation?	RS.3

10	Did you receive any service guarantee or form of compensation when delays occurred in handling your issue?	AS.1
11	Regarding the delays, were they in line with the information or expectations you had previously? Ideally, what kind of service do you expect from us?	AS.2
12	How would you evaluate the responsiveness of our staff (Customer Service, Security, and Manager) in addressing your concerns or questions?	EM.1
13	How did you feel about the service delays you experienced?	EM.2

Appendix 4. Interview Results

a. Manager bagian pelayanan

No.	Answer	Code
1	In terms of facilities, they are generally considered sufficient. It would not be entirely accurate to say they are lacking, but rather adequate for current operations. Regarding the variation in speed for new connection services, it is not necessarily slow, as the process still follows the established standard operating procedures (SOP). After payment is completed, installation is	TA.2

	typically carried out within a maximum of seven working days. There is also an express option, which applies when the pipeline is already available in front of the house and all required documents are complete. Delays sometimes occur when customer data is incomplete, but improvements have been made, and it is expected that in the coming year, all processes will align more consistently with the SOP. Regarding portable meters, previous constraints were due to the limited number of devices. Ideally, there should be three units for three field staff, but previously only two were operational, leaving one unused. This caused delays, extending completion time from one week to up to ten days or even two weeks. Currently, the equipment has been completed, and operations are expected to run more smoothly. Overall, while there are minor limitations, they are not considered critical and are mostly routine issues, such as equipment wear due to usage. In general, work efficiency is still considered to be running well.	
2	Each year, the organization prepares a budget plan, which is then translated into the Company Work Plan and Budget (RKP). This plan is reviewed annually before implementation. For example, if a department is	RL.1

	allocated a certain budget, it is distributed and monitored over quarterly periods. Every three months, budget absorption is evaluated to ensure alignment with the annual target. By the end of the year, the allocated budget is expected to be fully utilized in accordance with planned programs. While some targets are consistently achieved—such as annual water meter replacements—others, like new customer connections, are more difficult to predict. For instance, in certain areas such as Samarinda Seberang, many residents already rely on alternative water sources like private wells. As a result, they may not be interested in becoming PDAM customers unless their existing water sources become inadequate. This condition makes achieving connection targets in certain regions more challenging.	
3	From an internal perspective, service delays are generally not caused by office processes. If customer data is complete, the process can proceed efficiently. However, one common constraint relates to administrative requirements, particularly property tax (PBB) documents. Although this requirement is mandated by the local government rather than PDAM itself, it often becomes a bottleneck because many	RL.2

	customers have incomplete or overdue tax documentation, which prevents them from proceeding with installation.	
4	In terms of staffing, the overall number of employees is considered sufficient when viewed from a general organizational perspective. However, workforce distribution across different regions creates variations in capacity. Specifically, within the customer relations unit, there are indications of staff shortages due to retirements that have not yet been replaced. While this may not have a major impact, it can still influence performance outcomes slightly, particularly in achieving service targets. Plans are in place to address this gap in the upcoming period.	RS.2
5	Performance monitoring is conducted regularly through monthly reports, which allow management to track progress across different regions. These reports are reviewed on a quarterly basis to identify challenges and evaluate performance over time. By the final quarter, the organization focuses on achieving its annual targets based on insights gathered from earlier evaluations. This structured monitoring system ensures that operational issues can be identified and addressed systematically.	AS.1

6	Technical constraints do occur in practice. For example, equipment failure, staff illness, and weather conditions can all affect service delivery timelines. However, contingency measures are usually in place, such as backup equipment. While such issues may cause delays of one to two days, they are expected to be resolved promptly, as unresolved cases beyond this timeframe will be recorded and evaluated. Therefore, most issues are targeted to be completed by the third day to avoid performance penalties.	AS.2
7	From a broader perspective, service quality is strongly emphasized as part of the organization's vision to become a professional and service-oriented public utility. Building customer trust is considered essential, and it is recognized that a single negative experience can outweigh many positive ones. Therefore, continuous improvement in service delivery is prioritized, particularly through effective communication. When customers submit complaints, it is important not only to take action but also to provide clear communication regarding the handling process. Ideally, issues should be addressed on the same day, but if not possible, customers should at least be informed and reassured that follow-up	EM.2

	actions will be taken. Consistent communication is viewed as the key factor in maintaining customer loyalty and preventing dissatisfaction, especially in an era where negative experiences can quickly spread through social media.	
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b. Customer Service Divisi 1

No.	Answers	Code
1	In terms of facilities, there are still some shortcomings. For example, the computers are not fully adequate, which also affects the network performance and makes it slower. If the computers were better, the operation of the applications would likely run more smoothly. These issues are more related to internal system constraints, while problems in the field are generally influenced by site conditions. In addition, there are queues of customers reporting issues, which also affect service flow. Overall, the facilities are still considered sufficient, although improvements would be beneficial, especially considering that computers sometimes experience sudden errors.	TA.2
2	Currently, there is an express service program. If a pipeline is already available in front of the customer's	RL.1

	house, the installation can be completed within a maximum of four days and can be used immediately afterward. For payments, the process can be initiated on the same day and completed the next day. For the installation process itself, it typically takes around three to four days, provided that all materials are readily available.	
3	One of the main constraints is the lack of materials, particularly pipes. When pipes are not available in the field, staff must calculate and determine alternative routes, which takes additional time. In cases where the pipeline is located far from the customer's house, additional costs may be required, and this needs to be coordinated with the customer. However, not all customers are able to afford these additional costs, although the staff still try to respond and assist them as best as possible.	RL.2
4	There is no specific formal policy, but customers who report issues more than once are usually prioritized for faster handling in the field. In general, customers are served based on the order of their reports, but if a customer returns or reports the issue twice, their case is	RS.1

	given priority. Additionally, if delays result in penalties, there is a policy to waive the fine in certain situations.	
5	In terms of staffing, the current number of personnel is considered sufficient for Region 1, as it is already a densely developed area and does not experience rapid growth. The pipeline network is already quite dense compared to other regions that are still developing, which may require additional staff.	RS.2
6	From a procedural perspective, every service must follow established stages. If any step is not completed properly, the process cannot proceed to approval.	AS.1
7	Staff try to adhere to the promised timelines, and when delays occur, they usually contact customers to inform them about the situation. If all requirements are complete, the process can be relatively fast. However, constraints such as the absence of pipelines or additional costs can cause delays, especially when assistance is needed.	AS.2
8	Issues are often related to field conditions, and it is not always certain whether problems such as increased billing are caused by the meter. Therefore, customers are usually advised to first check for possible leaks or negligence. If a leak is found, it must be repaired first. In	EM.1

	such cases, PDAM may offer installment payment options to help customers manage the financial burden.	
9	In terms of service approach, two key aspects are emphasized. First, staff should be friendly and courteous, as this naturally leads to positive customer responses. Second, commitments made to customers should be fulfilled. For example, if it is promised that an issue will be handled within two to three days, this should be adhered to. For regular meter testing, the target is typically within three days, although for portable meter testing, delays may occur due to limited equipment and high demand. Nevertheless, staff ensure follow-up by coordinating with the relevant departments if the service has not yet been completed.	EM.2

c. Staff Pelayanan Divisi 1

No.	Answers	Code
1	In terms of facilities, the primary ones we rely on are computers. Currently, we have two units available for service operations, which are generally sufficient. However, the most common issue we encounter is the slow network, which tends to be sluggish and affects overall performance. In addition, other equipment such	TA.1

	as scanners still need improvement, especially in terms of speed. Since all documents submitted to the manager must now be scanned, the existing scanner—connected to the printer—often works quite slowly. This condition reduces work efficiency, although overall the available facilities are already adequate but still need improvement in terms of efficiency.	
2	Regarding infrastructure, the main obstacles are not within the office but rather in the field. The most frequent issues involve the lack of pipelines and low water pressure. These have been the main constraints in our area (Region 1) so far. Office facilities and administrative processes are generally complete and run smoothly, and installations can be carried out quickly. However, based on the information I have, there is only one portable meter available, which must serve four regions (Regions 1 to 4). Since the process is still manual and records are directly handled, it is not possible for one person to handle multiple meter checks at once, especially considering the wide distances between customers' locations. The main limitation here is the availability of only one piece of equipment.	TA.2

3	In terms of service time, what we provide is essentially an estimate. For regular services, the target is around 10 days for installation, including completion of administrative processes and surveys. However, there is now an express service option, where the process is targeted to be completed within 6 days—3 days for administration and survey, and another 3 days for installation. The cost remains the same, but all requirements must be complete from the beginning. For regular services, incomplete documents such as property tax (PBB) or family card (KK) can still be submitted later. However, for express services, all requirements must be complete, and the pipeline must already be available in front of the customer's house. This is verified through the KIGIS system, which shows the availability of PDAM pipelines, particularly secondary pipelines.	RL.1
4	Delays are usually caused by several factors, primarily weather conditions, low water pressure, and the absence of pipelines. In some emergency cases, where the distance between the customer's house and the nearest secondary pipeline is far, the process can still be	RL.2

	attempted but requires additional documentation. However, if there is no pipeline or the water pressure is too low, the process cannot proceed further.	
5	In handling complaints, particularly those related to delays such as meter testing, the complaint division first responds and then coordinates with the relevant departments, such as the meter inspection team. There are two types of meter testing: portable and regular. Portable testing typically has an estimated completion time of around 1–2 months. For regular testing, delays are usually handled through coordination, with common issues including difficulties in contacting customers or unclear sketches provided by customers.	RS.1
6	In terms of staffing, the current number of personnel is considered sufficient for our region, as it is not a rapidly developing area like Region 2. In Region 2, for example, development is faster, and they have around three surveyors to handle the workload. In our region, having two surveyors is still considered adequate, and they are capable of managing field survey processes effectively.	RS.2

7	From a managerial perspective, evaluations are conducted regularly. For instance, today there was a meeting led by Mr. Iwan to review the performance of new connection services over the past year. This reflects ongoing performance evaluation. The manager continuously monitors operations and provides guidance or direction for improvement. One innovation introduced is the digitization of documents, where all files are now scanned instead of being physically submitted for signatures. While this makes the process more efficient, the challenge remains that documents still need to be scanned individually, which can be time-consuming.	AS.1
8	Regarding communication, there are situations where customers are not always informed about delays. For example, if a surveyor is sick, it is usually assumed that the delay will not significantly affect the overall timeline, as the process can still continue. However, within the estimated timeframe (e.g., 10 days), communication is not always proactively provided. Most constraints are related to technical or administrative issues.	AS.2

9	In terms of policies, particularly for billing issues such as unusually high charges, PDAM provides options such as meter testing to verify the issue. If the high bill is due to a leak, customers may first be charged in full, but then offered installment payment options. However, installments are usually limited in duration, especially if the case involves meter testing.	EM.1
10	From a personal perspective, there is an expectation that customer complaints should be handled more quickly. Ideally, when a customer reports an issue—such as low water pressure—it would be responded to immediately, as this would increase customer satisfaction. However, in reality, the process cannot be that fast due to existing procedures. Overall, the expectation is that PDAM can improve its responsiveness to customer needs, as building a positive public image is not an easy task.	EM.2

d. Customer Ekternal 1

No.	Answers	Code
1	It's good overall, quite comfortable for me. It's not hot inside, even though it was really hot outside earlier. Regarding cleanliness, it's just standard—clean enough.	TA.2

	Personally, I feel comfortable here; as long as it's not hot, that's already sufficient for me.	
2	For technical facilities like pipes or others, I'm not really sure. But in my area, the most common issue is that the water meter often breaks. It's not just me—my neighbors experience the same problem. So it raises a concern about what is actually happening with the meters provided by PDAM, since they seem to break quite frequently.	TA.3
3	At that time, my water bill suddenly increased drastically. Usually, I only pay around 70 thousand, but it suddenly became over 400 thousand, even though my water usage stayed the same. I also work, so I reported the issue to the complaint service, and that's when I was directed to do a meter test. They explained the issue clearly to me at that time. I've never used WhatsApp for communication because I forgot to ask for their contact, so I had to come back to the office.	RL.1
4	That's actually the problem. It has been two weeks since I registered for the meter test, but no staff has come to my house yet to check or replace the meter. I also didn't	RL.2

	receive any updates or notifications about delays through WhatsApp or anything else. That's why I came again today to ask about the progress, because it hasn't been checked at all. Initially, they said it would take about 10 days, but now it has been two weeks. I don't even know how much longer I need to wait.	
5	Earlier, I was directed again to the complaint section. They explained that there is a long queue for meter testing, which is why my case hasn't been handled yet. The explanation was clear, and the staff member even called the field team directly to ask when my case would be processed. So in terms of responsiveness, the staff here are quite quick, but I'm not sure about the field team.	RS.1
6	It has been about two weeks since I registered, and it still hasn't been checked. I don't know how much longer it will take to be completed.	RS.2
7	As for the reasons, I was told that the number of tools is limited while the number of requests is high. Beyond that, I don't really know the details.	RS.3

8	This is actually the most important part for me. I was worried that if the issue isn't resolved and the meter isn't tested, I might end up not paying the bill and then getting fined. That's what I was concerned about, and my wife felt the same. But earlier, the manager explained that the penalty would be waived until the meter test is completed. That explanation made me feel more at ease.	AS.1
9	I just hope the process can be completed as soon as possible so people can feel calm. It's not just me, but everyone. If the issue is due to limited equipment, then it would be better if more equipment is provided, considering that we, as customers, are also paying for the service.	AS.2
10	The service was good. When I first arrived, the security guard was friendly and asked about my issue, then directed me to the complaint section. The staff inside were also helpful and explained everything clearly, especially regarding the compensation, which made me feel more reassured. Overall, the service was good and very helpful, from the security guard to the staff inside.	EM.1

11	What I felt is that having clear information makes us feel more at ease. If there are delays, it would be better if customers are informed via WhatsApp, since they already asked for our contact numbers. I'm not sure how the system works here, but overall, the staff inside were helpful.	EM.2
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e. Customer Eksternal 2

No.	Answers	Code
1	The facilities are more than sufficient—comfortable and clean. So overall, my assessment of the facilities and infrastructure here is that they are adequate.	TA.1
2	As for field conditions in my residential area, it is considered a new housing complex. The main pipeline has already been installed in the area, and most of my neighbors are already using PDAM services—I just recently applied for a new connection. From what I've heard from neighbors, there have been times when the water supply stopped, but it is understandable since the housing area is still new. Hopefully, the water supply will remain stable and not experience frequent outages like in some other areas.	TA.3

3	The PDAM staff were good when I registered—there were no issues. The security guard directed me to take the registration form, and the customer service staff clearly explained how to fill it out and what documents needed to be submitted. At that time, I also contacted them via WhatsApp, and they did respond.	RL.1
4	I followed up via WhatsApp because my house had not been surveyed yet by the staff. There was no prior update, so I took the initiative to ask why the survey had not been conducted.	RL.2
5	At the time of registration, I was informed that the bill could be processed within 5–7 days. However, by the third day, the survey had not yet been conducted. After I followed up via WhatsApp, the staff came the next day to conduct the survey. Eventually, I made the payment about two weeks after my initial registration.	RL.3
6	At the office, the service was quite fast. However, there was still a delay in the overall process. When I contacted them via WhatsApp, the staff responded quickly and followed up, although I am not sure why the field survey was delayed in the first place.	RS.1

7	The total time from registration until progress was made was approximately less than two weeks.	RS.2
8	As I mentioned earlier, I did not follow up by coming to the office again, but rather through WhatsApp. As for the cause of the delay, I was not given a clear explanation; I was only told that it would be followed up with the relevant department.	RS.3
9	There was no guarantee or compensation provided, and personally, I don't think compensation is necessary. The delay was around five days, which was not too significant for me, even though I was trying to complete the installation before an event at my house.	AS.1
10	In terms of expectations, the service did not fully match the initial information, since I was told it would take 5–7 days. However, it was still within a tolerable range. If the delay had extended beyond one month, that would have been a different situation.	AS.2
11	All the staff were good. From the security guard to the registration staff, everyone was friendly and provided clear explanations. I felt supported throughout the process—the security guard helped, the registration staff	EM.1

	assisted properly, and when I followed up via WhatsApp, the staff came the next day, even though it was slightly delayed compared to the promised timeline.	
11	Overall, I feel grateful that the process did not take too long, approximately around two weeks. Even though I was aiming to complete the installation before an event at my house, it was still acceptable. At least now I have been able to make the payment, and hopefully the installation can be completed soon.	EM.2

Appendix 5. Internship Activity Documentation

