

# Analysis Of The Quality Of Clean Water Services At The Office Of The Regional Drinking Water Company (Pdam) Tirta Bumi Wibawa, Sukabumi City

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## ABSTRACT

This study analyzes the clean water service quality at PDAM Tirta Bumi Wibawa, Sukabumi City. As a regional-owned company, PDAM is responsible for providing clean water, yet the 2024 Community Satisfaction Index scored only 71.77 ("less good"). Issues include dirty or non-flowing water, unclear tariff increases, and poor complaint handling. Using a descriptive qualitative method with observations, interviews, and documentation, the study applies Tjiptono's (2017) service quality theory—focusing on reliability, responsiveness, and empathy. Findings show suboptimal service: unreliable water distribution, slow complaint responses, and lack of customer care. The study recommends improving tariff transparency, responsiveness, and customer-oriented communication.

**Keywords:** Service Quality, Clean Water, PDAM, Reliability, Responsiveness, Empathy

## 1. INTRODUCTION

Water is a vital element for all forms of life on Earth. The survival of humans, animals, and plants is heavily dependent on the availability of clean water. Without water, life would not be possible. It plays a crucial role in numerous daily activities such as drinking, cooking, bathing, and sanitation, as well as industrial processes and ecosystem stability. Hence, access to clean water is a fundamental human need that must be ensured through effective public services.

In Indonesia, clean water services are generally managed by regional government-owned enterprises known as Perusahaan Daerah Air Minum (PDAM). These public service agencies are responsible for ensuring the availability and distribution of clean water to the community. According to Government Regulation No. 54 of 2017 on Regional-Owned Enterprises (BUMD), PDAMs are mandated to adhere to standards of public service delivery that prioritize transparency, accountability, and responsiveness. However, in recent years, the performance of PDAM Tirta Bumi Wibawa in Sukabumi City has been under scrutiny due to increasing public dissatisfaction. Numerous complaints have been raised by customers regarding the quality of water service, including murky water, frequent disruptions in water supply, unresponsiveness to complaints, and rising water tariffs without corresponding improvements in service quality. These issues highlight the need for a comprehensive evaluation of the service performance of the local PDAM.

According to public service theories, especially the service quality model proposed by Tjiptono (2017), high-quality public services should demonstrate reliability, responsiveness, and empathy towards customer needs. A service provider's ability to consistently fulfill promises, respond quickly and effectively to customer concerns, and offer personalized care greatly affects public satisfaction and trust.

Given the essential nature of water and the strategic role of PDAM in ensuring community welfare, this research aims to analyze the quality of clean water service delivery by PDAM Tirta Bumi Wibawa in Sukabumi City. The study uses a qualitative descriptive approach, focusing on identifying strengths and weaknesses in service dimensions and offering recommendations for improvement. By doing so, the research seeks to contribute both to the theoretical development of public administration and to practical efforts to enhance public service delivery in the clean water sector.

## 2. METHODS

To achieve the research objectives and examine the quality of clean water services at the Regional Drinking Water Company (PDAM) Tirta Bumi Wibawa in Sukabumi City, this study employs a qualitative descriptive research method. This approach aims to provide a detailed depiction of the research focus through written narratives rather than numerical data.

As stated by Neergaard et al. (2009), descriptive qualitative research focuses on understanding and describing phenomena from the perspective of those experiencing them. This method is especially useful for answering "what" is happening in a specific context. Creswell (2013) also notes that qualitative descriptive research seeks to gain in-depth insights into a topic through rich data analysis, emphasizing the real context of behavior and characteristics without the dominance of theoretical frameworks.

This method is considered appropriate for exploring the quality of public service delivery in the context of PDAM, particularly in describing problems, perceptions, and experiences of stakeholders regarding water service quality in Sukabumi City.

## 3. RESULTS AND DISCUSSIONS

### A. Legal Framework of PDAM

The Regional Drinking Water Company (PDAM) is a public service entity managed by the local government, functioning not only as a clean water provider but also as a strategic instrument for regional economic development. PDAM operations are grounded in Law No. 5 of 1962 concerning Regional Companies, emphasizing public utility and local revenue generation. Furthermore, the Ministry of Health Decree No. 907/Menkes/SK/VII/2002 stipulates quality standards for drinking water, including physical, chemical, microbiological, and radioactive parameters. In Sukabumi City, Regional Regulation No. 5 of 2019 further details PDAM Tirta Bumi Wibawa's organizational structure, governance, and responsibilities. These regulations ensure PDAM's role in delivering efficient, transparent, and sustainable public services.

### **Critical Analysis: Effectiveness and Challenges of Digital Services in PDAM**

While regulatory frameworks such as Law No. 5 of 1962 and Sukabumi's Regional Regulation No. 5 of 2019 provide a strong foundation for PDAM's role in delivering public services, the integration of digital services introduces both opportunities and challenges. On the one hand, digitalization can significantly enhance operational efficiency, transparency, and customer engagement. For instance, online billing systems, digital complaint submissions, and real-time water usage tracking contribute to faster service delivery and better accountability. These tools align well with the legal mandate for transparent and efficient public service.

However, the effectiveness of these digital initiatives depends heavily on several factors. One key challenge is digital literacy among customers, particularly in less connected or lower-income communities. Additionally, inadequate infrastructure or outdated internal systems within PDAM may hinder seamless digital service implementation. There are also concerns about data security and system reliability, especially if cyber threats are not properly managed.

Moreover, without strong monitoring mechanisms and responsive digital customer service, the intended transparency and accessibility of digital platforms may not be fully realized. Thus, while digital transformation holds great potential to fulfill PDAM's public utility obligations more effectively, it must be supported by inclusive access, robust IT infrastructure, skilled human resources, and a customer-centered digital strategy to overcome current service limitations.

#### **B. Analysis of Clean Water Service Quality**

Using Tjiptono's (2017) service quality theory—which includes tangibles, reliability, responsiveness, assurance, and empathy—the analysis identified key strengths and weaknesses in PDAM Tirta Bumi Wibawa's service delivery.

##### *1. Tangibles (Physical Evidence)*

PDAM has demonstrated good physical readiness in delivering services. The office is clean, well-organized, disability-friendly, and equipped with facilities such as a waiting area, service counters, operational vehicles, and computers—all maintained regularly. These support facilities reflect PDAM's commitment to providing a comfortable and professional service environment.

##### *2. Reliability*

PDAM consistently performs routine maintenance on pipelines, pumps, and reservoirs to ensure uninterrupted water distribution. These efforts are supported by SOPs aligned with national regulations and regular quality checks in cooperation with the local health lab (LABKESDA). However, some customers still experience disruptions, including inconsistent flow or poor water quality in certain areas.

##### *3. Responsiveness*

PDAM has implemented a 24-hour WhatsApp complaint service to enhance responsiveness. This innovation has made it easier for customers to report issues at any time.

However, feedback from customers indicates that response times are not consistent across all service areas, which affects customer trust.

#### 4. Assurance

Frontline staff at PDAM are generally polite and understand the service process. Staff competence is continuously developed through training in collaboration with PERPAMSI and the Ministry of Public Works and Housing. These efforts are intended to build customer confidence and ensure a high standard of service delivery.

#### 5. Empathy

PDAM demonstrates empathy by engaging in dialogue with customers through public forums and DPRD sessions, as well as offering direct explanations during service interruptions. Nonetheless, empathetic service is not yet consistently experienced by all customers, which suggests a need for further improvement in equitable service delivery.

Overall, PDAM Tirta Bumi Wibawa has made significant progress in improving clean water service delivery. However, recurring issues such as inconsistent water quality, delayed complaint responses, and unequal infrastructure coverage must be addressed. Continuous improvement in both technical and human resource aspects is essential to meet public expectations and achieve optimal service delivery.

### DISCUSSION OF THE PERSPECTIVE DIMENSION

In analyzing the quality of clean water services at PDAM Tirta Bumi Wibawa Kota Sukabumi, it is important to examine the issue through the perspective of public administration and service quality theory as proposed by Tjiptono (2017). This perspective highlights the fundamental relationship between public service institutions and the citizens they serve. Specifically, it emphasizes the responsibility of public organizations to fulfill basic public needs—such as clean water access—with reliability, responsiveness, and empathy.

From the public administration perspective, PDAM functions as a regional-owned enterprise (BUMD) with a dual mission: to provide equitable public services and support regional economic development. The fulfillment of this dual role requires transparent governance, efficient resource management, and active citizen engagement. However, the study's findings indicate a gap between the ideal framework and the actual experience of customers.

The reliability dimension, from this perspective, represents PDAM's obligation to consistently deliver promised services. Failures in water distribution, frequent disruptions, and unclear complaint resolution processes suggest weaknesses in institutional performance and planning. From a governance viewpoint, such issues reflect the need for stronger internal accountability mechanisms and infrastructure investment.

The responsiveness dimension reflects PDAM's agility in addressing public complaints and service interruptions. While digital initiatives like the 24-hour WhatsApp service demonstrate an effort toward modernization, inconsistent response times and unresolved cases highlight a deficiency in execution. This misalignment indicates that the perspective of service delivery has not fully adopted customer-centric principles emphasized in public administration, particularly responsiveness and participatory communication.

The empathy dimension underscores the importance of human-centered service delivery. Public service organizations must not only provide functional services but also show a commitment to understanding the needs and contexts of their users. The complaints regarding poor communication and lack of follow-up suggest that PDAM's customer service is not sufficiently inclusive or attentive to diverse user experiences. From a theoretical standpoint, this points to a lack of adaptive governance and insufficient feedback integration.

In conclusion, from the perspective dimension, the performance of PDAM Tirta Bumi Wibawa still falls short of the expectations and principles of public service delivery. To bridge the gap between theory and practice, PDAM must enhance its responsiveness, invest in infrastructure and technology, and foster a more empathetic organizational culture. Aligning public service delivery with community expectations is key to strengthening public trust and achieving sustainable service improvement.

## DISCUSSIONS OF THE POSITION DIMENSION

The Position Dimension in this research refers to the institutional and functional role of PDAM Tirta Bumi Wibawa Kota Sukabumi as a public service entity within the local governance framework. From this perspective, the analysis explores PDAM's status as a Regional Government-Owned Enterprise (BUMD) and its strategic positioning in fulfilling essential public needs, especially the provision of clean water.

PDAM's position is central to regional development and public health. As outlined in Government Regulation No. 54 of 2017 on BUMD and Sukabumi Regional Regulation No. 5 of 2019, PDAM is mandated not only to ensure the distribution of potable water but also to operate under principles of accountability, transparency, and service orientation. This positions PDAM not merely as a water supplier but as a key public institution responsible for sustainable development and community welfare.

Despite this crucial role, the research findings indicate a misalignment between PDAM's formal position and its actual performance in service delivery. Complaints regarding water outages, unresponsive complaint handling, and unclear billing practices reflect gaps in institutional effectiveness. These issues weaken the perceived authority and legitimacy of PDAM in the eyes of the public, suggesting that its strategic position is not fully optimized.

From an administrative point of view, PDAM should leverage its position to implement more citizen-oriented approaches, integrate digital service systems, and strengthen communication mechanisms. The lack of consistent responsiveness and unequal service quality across different customer zones weakens PDAM's position as a trusted and reliable service provider.

Furthermore, PDAM's position must also be examined in terms of public perception. Trust and legitimacy are built not only through legal mandates but also through consistent, transparent, and responsive service experiences. If PDAM fails to embody these expectations, its institutional position may be questioned, which could lead to public dissatisfaction and reduced compliance with water usage and payment systems.

In conclusion, the Position Dimension reveals that while PDAM Tirta Bumi Wibawa holds a strong legal and institutional mandate, its operational reality still needs reinforcement to align with its strategic role. Improvements in service reliability, responsiveness, and transparency are essential to strengthening PDAM's position as a vital public institution serving the needs and rights of the community.

## DISCUSSION OF THE PATTERN DIMENSION

The Pattern Dimension in this research refers to the recurring behavioral and operational tendencies within the public service delivery of PDAM Tirta Bumi Wibawa Kota Sukabumi. This includes the habitual interactions between the institution and its customers, the flow of service procedures, the consistency in handling complaints, and the overall management style applied in daily operations.

From the findings, it is evident that certain service patterns have emerged, both positive and problematic. For example, a positive pattern can be seen in PDAM's use of technology—such as the 24-hour WhatsApp complaint service—which has become a new norm in how the company communicates with its customers. Additionally, periodic infrastructure maintenance and the existence of Standard Operating Procedures (SOPs) show a pattern of procedural effort to uphold water service reliability.

However, negative patterns are more dominant in shaping customer dissatisfaction. These include repeated instances of:

- Inconsistent water distribution in certain areas,
- Slow and unclear responses to customer complaints,
- Lack of follow-up on service disruptions, and
- Recurring billing inaccuracies.

Such patterns suggest systemic inefficiencies rather than isolated incidents. From an administrative perspective, this indicates a lack of adaptive policy mechanisms, weak performance monitoring, and poor feedback loops. When service disruptions, poor-quality water, and non-transparent billing recur without clear corrective actions, they form a harmful organizational culture that undermines public trust.

Additionally, the pattern of top-down communication—where information primarily flows from the institution to the public, without sufficient customer feedback integration—has led to a service model that is less responsive to actual user needs. This gap between procedural design and real-world responsiveness is a critical issue in public service

reform, as it reflects an imbalance between bureaucratic efficiency and citizen-centric service delivery.

In conclusion, the Pattern Dimension highlights that PDAM Tirta Bumi Wibawa needs to break away from detrimental service routines and establish new operational patterns that are consistent, responsive, and aligned with customer expectations. Institutionalizing a culture of continuous improvement, supported by data-driven decision-making and active citizen participation, is essential for transforming service patterns and improving clean water delivery in the region.

#### 4. CONCLUSION

The use of 24-hour WhatsApp service is a positive step toward iBased on the results of the research and analysis conducted on the clean water service quality at PDAM Tirta Bumi Wibawa Kota Sukabumi, several conclusions can be drawn:

##### 1. Overall Service Quality

The quality of clean water service provided by PDAM Tirta Bumi Wibawa is still considered suboptimal. While there are positive aspects such as the availability of physical facilities, a clean office environment, and regular maintenance, these have not been consistently felt by all customers. Some areas still experience water outages and poor water quality, indicating uneven service distribution.

##### 2. Reliability Dimension

PDAM has implemented SOPs and conducts regular infrastructure maintenance. However, complaints about water outages and inconsistent flow remain common. This shows that the reliability of service—defined as the ability to deliver consistent and accurate service—is still lacking in some areas.

##### 3. Responsiveness Dimension

Improving responsiveness. However, the feedback from several customers points to delayed responses or unresolved complaints. This indicates the need to enhance the speed and quality of problem resolution.

##### 4. Empathy Dimension

Although PDAM has made efforts to communicate with customers through socialization programs and direct visits, many customers still feel their complaints are ignored or inadequately addressed. The empathetic aspect of service—understanding and responding to customers' concerns—needs significant improvement.

##### 5. Supporting and Inhibiting Factors

The supporting factors include modern facilities, digital service channels, and periodic evaluations. Inhibiting factors include limited human resources, technical constraints in water distribution, inconsistent customer service, and a lack of transparency regarding billing systems.

In conclusion, while PDAM Tirta Bumi Wibawa has made important strides toward improving clean water services, further efforts are needed in infrastructure improvement, customer service responsiveness, and transparent communication to increase public satisfaction and service quality.

### **Practical Implications for PDAM**

PDAM Tirta Bumi Wibawa should invest in expanding digital infrastructure and training staff to manage customer service tools more effectively. Enhancing response time through real-time digital platforms like WhatsApp and integrating customer data systems could improve service delivery. Furthermore, clear communication about billing, more equitable water distribution, and a robust complaint management mechanism are crucial to building public trust and satisfaction.

### **Theoretical Implications for Public Administration and Digital Service Studies**

This case highlights the importance of aligning digital service initiatives with principles of responsiveness and citizen-centered governance. From a public administration perspective, it underscores the need for a hybrid approach that combines digital innovation with human empathy and accountability. For digital service studies, the findings reveal that digital platforms alone do not guarantee improved public service unless they are supported by institutional capacity, transparency mechanisms, and inclusive access strategies.

### **REFERENCES**

- Caiden, G. E. (1984). *Public Administration*. London: Routledge.
- Chandler, R. C., & Plano, J. C. (1988). *The Public Administration Dictionary*. Santa Barbara, CA: ABC-CLIO.
- Fetni, F., Baso, Y. S., & Septiana, N. (2023). Analysis of Service Quality in Clean Water Supply at PDAM Tirta Simbune, East Kolaka Regency. *Journal of Public Services*, 12(2), 45–58.
- Gulo, F., et al. (2022). Service Quality and Customer Satisfaction in Public Utilities. *Journal of Business and Public Administration*, 9(1), 22–29.
- Marselia, A., et al. (2017). Role of PDAM in Water Resource Management. *Journal of Environmental Policy*, 5(3), 101–110.
- Miles, M. B., & Huberman, A. M. (1992). *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverly Hills, CA: Sage.
- Miles, M. B., & Huberman, A. M. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Neergaard, M. A., et al. (2009). Qualitative Descriptive Research in Health Care. *BMC Research Notes*, 2, 52. <https://doi.org/10.1186/1756-0500-2-52>

- Rinaldi, M. (2012). Measurement of Public Satisfaction through Service Quality Index. *Public Services Review*, 6(1), 33–41.
- Riyadin, A. (2019). Delivering Service Excellence: A Customer-Oriented Approach. *Journal of Management and Service Quality*, 4(2), 10–19.
- Sauki, R., & Nuraeni, E. (2023). Public Service Quality Analysis at PDAM Tirta Bumi Wibawa Sukabumi. *Journal of Public Administration Studies*, 11(3), 55–70.
- Suhaila, N., Kadir, A., & Matondang, D. (2022). Service Quality Evaluation at PDAM Tirtanadi Branch Tuasan. *Journal of Government and Society*, 10(4), 78–91.
- Gulo, M., Zai, K. S., & Lase, N. K. (2022). The effect of service quality on customer satisfaction at CV. Golden Mart, Gunungsitoli City. *EMBA Journal*, 10(4), 1290-1298.
- Anderson, W. A., & Parker, F. B. (1964). *Society: Its Organization and Operation*. New Jersey: D. D. Van Nostrand Company, Inc.
- Monintja, C., Tulus, F. M. G., & Plangiten, N. (2023). Implementation of public services at the Tourism Office in Manado City. *Journal of Public Administration*, 4(048).[https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/10548319/3e5315e0-292e-4b0f-a0d6-15c575ac5fb4/jm\\_jap-jurnal-christo-monintja.pdf](https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/10548319/3e5315e0-292e-4b0f-a0d6-15c575ac5fb4/jm_jap-jurnal-christo-monintja.pdf)