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RESEARCH ARTICLE

LEVEL OF CONCESSIONAIRES' SATISFACTION WITH THE SERVICE DELIVERY OF WATER SUPPLY PROVIDERS (WSPS) IN LAGUNA

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ABSTRACT

This study explores the level of concessionaires' satisfaction with the service delivery of Water Supply Providers (WSPs) in Laguna in terms of water quality and supply, inspection, maintenance, leak repair, billing service, communication, and front-line services. The study employed a quantitative research method. Weighted mean was the statistical treatment applied. The participants of the study were 400 concessionaires, selected based on stratified random sampling. Findings show that the concessionaires are generally satisfied with the service delivery of Water Supply Providers (WSPs) in Laguna in terms of water quality and supply, inspection, maintenance and leak repair, billing service, communication, and front-line services. The recommendation includes the following: WSPs with lower satisfaction ratings should take steps to improve their service delivery, WSPs should take into consideration the feedback and complaints of their concessionaires to identify areas of improvement, WSPs should benchmark with high-performing WSPs in terms of concessionaire satisfaction to learn from their best practices, WSPs should continuously monitor and improve their service delivery and WSPs should aim to provide excellent service that meets the highest standards possible to achieve the highest level of concessionaire overall satisfaction.

KEYWORDS

Water Supply Providers, concessionaires, service delivery, level of satisfaction

1. INTRODUCTION

The provision of a clean and reliable water supply is an indispensable component of societal well-being and economic development. In the pursuit of enhancing water accessibility and addressing the complexities of water management, many regions worldwide have engaged in various public-private partnerships, often involving Water Supply Providers (WSPs). These collaborations have sought to optimize water service delivery, capitalizing on both public-sector expertise and private-sector efficiency. Amidst these endeavors, a critical factor that warrants meticulous examination is the satisfaction level of the concessionaires, i.e., the end-users of water services.

The province of Laguna, located in the southern Luzon region of the Philippines, serves as an intriguing case study in this context. With its diverse landscape and growing population, Laguna faces unique challenges in balancing water supply demands against environmental sustainability and resource limitations. Consequently, understanding the level of concessionaires' satisfaction with the service delivery of WSPs in this dynamic setting assumes paramount importance.

This study aims to delve into the multifaceted facets of the satisfaction levels exhibited by concessionaires concerning the services provided by WSPs in the province of Laguna. The study seeks to explore the nuanced interplay between water quality and supply, inspection, maintenance, leak repair, billing service, communication, and frontline services offered by WSPs to discern their impact on the satisfaction levels of the end-users.

The primary objectives of this research are to determine the overall level of satisfaction among concessionaires with the service delivery of Water Supply Providers (WSPs) operating in Laguna in terms of water quality and supply, inspection, maintenance, and leak repair services, billing service, communication, and frontline services and to provide meaningful insights to policymakers and water management authorities, thereby facilitating data-driven decision-making and policy formulation aimed at improving water service delivery in Laguna.

This study will contribute significantly to the extant literature by shedding light on the complex interactions between water service providers and their end-users in a unique and challenging regional context. The findings will enable a better understanding of the drivers of concessionaires' satisfaction and the barriers that hinder optimal service delivery, thereby empowering stakeholders to devise targeted strategies for enhanced water management and equitable access to this essential resource.

This study aims to provide a comprehensive assessment of the level of concessionaires' satisfaction with the service delivery of Water Supply Providers in Laguna, drawing attention to the multifaceted dimensions of water service quality and the resultant implications on societal welfare and sustainable development. By elucidating these critical aspects, the study endeavors to foster informed dialogues and foster transformative changes in water governance and management, benefiting both the local population and broader water management practices.

2. LITERATURE REVIEW

This section presents the related literature and studies that helped the researcher gain insights into the investigation. A systematic literature review "aims to transparently report not only the constructing parameters but also the resulting temporal, geographical, conceptual and thematic trends in the retrieved literature" (Soaita et al., 2020). It summarizes and describes previous literature and studies that provide the researcher with

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relevant concepts, theories, and principles that support the present investigation and the formulation of the title, assumptions, and hypotheses of the study.

Most public water utilities in developing countries are faced with several challenges in improving service quality delivery. These challenges are linked to infrastructural, financial, environmental and health, social-political, and managerial (OJO, 2011; Gowela et al., 2017; Kumar, 2023)

The study of customer satisfaction is of prime importance in encouraging performance improvement of any service provider. This is true even in the case of government-owned organizations such as those that provide essential services such as water supply. Water is a basic need and human right of people. People need water for various domestic purposes like drinking, cooking, sanitation, and irrigation (Lyimo and Gindo, 2022).

Consumers' satisfaction with water and service quality is not always in line with monitored water and service quality compliance. Reducing the difference between perceptions and realities requires understanding how perceptions are formed and the factors that affect them (Denantes, et al., 2021). The study suggests that consumers' satisfaction with water and service quality may not always align with the monitored compliance metrics.

Understanding customers' satisfaction can provide companies with information to streamline their operations and focus improvement programs on achieving cost efficiency to ultimately achieve better performance (Ilieska, 2016). More studies have also focused on assessing the level of customer satisfaction with service delivery to provide reliable information to policymakers (Jayaramu et al., 2014; Zeraebruk et al., 2014; Gowela et al., 2017).

To develop an effective quality management system, WSPs need to consider the factors that influence consumer perceptions of water and service quality. These factors can include factors such as reliability, responsiveness, billing processes, communication, accessibility, and customer service. Consumer perceptions are shaped by various elements, including their past experiences, expectations, word-of-mouth, and comparison with alternative service providers. Product quality is the ability of an item to provide results or performance that is appropriate and even exceeds what the customer wants (Kotler and Keller 2016, Ali et al., 2022). Perceived product quality was also found to have a significant positive relationship with customer satisfaction in the automobile manufacturing sector based on the results of structural equation modeling in the study of Lu, (Blankson, and Prybutok, 2017).

By incorporating consumers' satisfaction as input to the quality management system, WSPs can gain valuable insights into the areas that need improvement to align consumer perceptions with the measured compliance standards. This can be achieved through various methods, including customer feedback surveys, complaint-handling mechanisms, focus groups, and regular communication channels.

Customer satisfaction is a critical element of business strategy that affects post-purchase behavior (Churchill Jr. and Surprenant, 1982; Gomez, et al., 2004; Olsen et al., 2014). There are several ways to study customer satisfaction, including the disconfirmation of expectations and the behavioral approach (Grigoroudis and Siskos, 2010; Oliver, 2010).

Customer satisfaction is the level where the perceived performance of the product is per buyers' expectations (Kotler and Armstrong, 2013; Ali, 2022). When the product's performance falls short of customers' expectations, it leads to disappointment, whereas if the product's performance meets or exceeds customers' expectations, it results in satisfaction. Based on the interpretation of customer satisfaction, it can be understood as the level at which the perceived performance of a product aligns with the expectations of the buyers.

Customer satisfaction is the level of feeling where people state the results of a comparison of the performance of a product or service received and expected (Hamdani et al. 2011; Ali, 2022). The level of customers' satisfaction or dissatisfaction with a product or service at the end of the sales process can significantly influence the subsequent behavior of customers towards these products and services.

Customer focus is the first quality management principle aimed to drive the organization to increased customer value, increased customer satisfaction, improved customer loyalty, enhanced repeat business, the enhanced reputation of the organization, expanded customer base, increased revenue, and market share while competent, empowered and engaged people at all levels throughout the organization are essential to enhance the organization's capability to create and deliver value (ISO 9000:2015, Milovanovic, et al.,2023)

The theoretical framework accounted for in this research is Richard Oliver's Expectation Confirmation Theory (ECT). The Expectation Confirmation Theory (ECT), by Oliver, is a psychological theory that explains how individuals form and revise their expectations about a product or service based on their prior experiences. According to the theory, satisfaction or dissatisfaction with a product or service is determined by the confirmation or disconfirmation of those expectations (Oliver, 1997).

The theory begins with the assumption that individuals hold certain initial expectations about a product or service before they experience it. These expectations are formed based on various factors such as prior knowledge, advertising, word-of-mouth, and personal beliefs. After individuals have used or experienced the product or service, they compare their experience with their initial expectations. If the experience matches or exceeds their expectations, it leads to confirmation. On the other hand, if the experience falls short of their expectations, it leads to disconfirmation. Once individuals perceive confirmation or disconfirmation, they engage in a cognitive evaluation process. If the experience confirms their expectations, they will be satisfied. If the experience significantly exceeds their expectations, it may lead to delight or positive surprise. Conversely, if the experience falls short of their expectations, it may result in dissatisfaction or negative surprise.

The level of satisfaction or dissatisfaction resulting from the confirmation or disconfirmation of expectations influences individuals' post-consumption behavior. Satisfied individuals are more likely to exhibit positive behaviors such as repeat purchases, positive word-of-mouth, and loyalty. Dissatisfied individuals, on the other hand, may engage in negative behaviors such as complaining, switching to competitors, or spreading negative word-of-mouth. Expectation Confirmation Theory suggests that individuals evaluate their satisfaction or dissatisfaction based on the alignment between their initial expectations and their actual experiences.

The study of customer satisfaction is of prime importance in encouraging performance improvement of any service provider. This is true in the case of government-owned organizations such as those that provide essential services such as water supply. Access to improved service levels of sanitation and water supply is vital for human health and necessary for people's convenience and dignity. It is generally expected that a higher level of service quality is expected to lead to customer satisfaction and eventually to better customer loyalty and higher profits (Chen and Hu, 2018, Lyimo and Gindo, 2022).

Further, the ECT focuses on how customers' initial expectations and subsequent experiences influence their satisfaction or dissatisfaction with a service. In the context of water service providers, the ECT can help understand customers' expectations regarding water quality, reliability, responsiveness, billing processes, and overall service performance. By conducting customer surveys, feedback analysis, and satisfaction assessments, water service providers can gauge the extent to which their service meets or exceeds customer expectations. The ECT provides a framework to assess whether the service is confirming customers' initial expectations or falling short, leading to disconfirmation.

This study explores the level of concessionaires' satisfaction with the service delivery of Water Supply Providers (WSPs) in Laguna in terms of water quality and supply, inspection, maintenance, leak repair, billing service, communication, and front-line services.

3. METHODS

A descriptive research design was adopted by the study to describe the characteristics of the sample and the area of interest, discover new meaning, describe the aspects of the situation as it naturally occurs, and discover relationships among selected variables, thus, providing the answers to questions according to ongoing events of the present accurately and systematically. Descriptive research describes the population or phenomenon's characteristics that are being studied or the behavior of the subject without influencing it in any way (Sharma, 2019).

The study was conducted in service areas of the select water service providers (WSPs) within Laguna Province. An alphanumeric coding system was used for this study, WSP1 up to WSP11, which represents the various water service providers operating within the Province of Laguna to preserve the anonymity and confidentiality of the WSP participants. WSP stands for water service provider, and the immediately succeeding number denotes the area of operation of the WSP. The service coverage of

a WSP is either a municipality or city. In some cases, the WSPs' area of jurisdiction covers not only one municipality or city but can expand to other contiguous areas. The water service provider1 (WSP1) of a service area is a local water district classified as a government corporation formed by the local government for the operation and maintenance of the water supply and wastewater management system, which has been issued a certificate of conformance by the Local Water Utilities Administration (LWUA). On the other hand, LWUA is a government agency that provides financial, technical, and institutional support to local water districts across the country.

Table 1: Stratified Sampling

Water Service Providers (WSPs)	Population Size	Sample Size
WSP1	7,038	11
WSP2	17,241	27
WSP3	71,136	109
WSP4	43,982	67
WSP5	1,725	3
WSP6	9,385	14
WSP7	2,476	4
WSP8	46,339	71
WSP9	36,197	56
WSP10	19,259	30
WSP11	9,149	14
Total	261,263	400

The respondents of the study were the concessionaires of the eleven (11) WSPs in the Province of Laguna, chosen by stratified or proportionate sampling design meeting the criteria set by the researcher, based on their availability and willingness to participate in the study as shown in Table 1.

The study utilized the sampling method to obtain a subset from the entire population to be able to make inferences about the population of the study. Sampling involves selecting a subset of the population of interest, allowing the collection of data faster instead of the attempt to reach every member of the population (Turner, 2020). Using Slovin's Random Sampling Formula, the study obtained a sample size of four hundred (400) respondents out of the two hundred thousand sixty-one thousand two hundred sixty-three (261,263) population with a confidence level of ninety-five percent (95%).

The survey method was used utilizing a survey questionnaire as the primary data-gathering instrument. A Likert scale questionnaire was adopted aimed at achieving the objectives of the study. The research instrument was used in collecting data from the respondents, aimed at measuring their opinions that will address the problems of the study. The survey questionnaire for the concessionaires was taken and composed of a combination of closed and open-ended questions from (IQWD, 2022). It contained queries about the respondents' level of satisfaction with the service delivery of the WSP and was divided into three parts. The first part was the profile of the concessionaires or respondents participating in the survey. The second part was the level of satisfaction with service the delivery of WSP as perceived by the concessionaires in terms of water quality and supply, inspection, maintenance and leak repair, billing service, communication, and frontline services. The third part of the questionnaire was an open-ended question for other comments and suggestions from the respondents. A five (5) -point Likert scale ranging from 1- very dissatisfied to 5- very satisfied was used for the survey questionnaire. The five-point Likert scale, mean, weighted mean, and adjectival rating are presented in Table 2. The weighted mean will be interpreted according to the boundary of numerals.

Table 2: Likert Scale for Concessionaires' Level of Satisfaction

Mean	Weight	Adjectival Rating
1	1.00 – 1.80	Very Dissatisfied (VD)
2	1.81 – 2.60	Dissatisfied (D)
3	2.61 – 3.40	Neither Satisfied nor Dissatisfied (N)
4	3.41 – 4.20	Satisfied (S)
5	4.21 – 5.00	Very Satisfied (VS)

For the data gathering, a letter was sent to the WSP managers for the conduct of the study from the respondents within the service area. The letters and questionnaires to the respondents were distributed and retrieved personally, online, and by email.

The identity of the respondents was kept anonymous or confidential, in which the researcher gave assurance to protect respondents' names including the avoidance of self-identifying information and statements. The researcher ensured that the anonymity and confidentiality of the respondents were preserved by not revealing their identities and names in the collection of data, analysis, and reporting of the findings of the study. Confidentiality and anonymity protect the respondents from potential harm. The confidentiality of the participants makes the identity of the participants confidential and will not be revealed in the report in any way (Arifin, 2018). The observance of the anonymity of participants makes the identity of the respondents unknown to the researcher. Anonymity requires that the researcher not know who the participants are (Gajjar, 2013).

4. The Data Analysis

Table 3 provides information on the level of satisfaction of Concessionaires on WSPs service delivery by eleven (11) Water Service Providers (WSPs) in terms of water quality and supply. The evaluation is based on concessionaires' perceptions and covers four aspec service delivery: 24-hour water supply, water supply pressure, clarity of water supply, and odor of water supply. The table also provides a composite mean score for each aspect of service delivery.

Table 3: Level of Satisfaction of Concessionaires in terms of Water Quality and Supply

Water Service Providers	Water Quality and Supply									
	24 hours water supply		Water supply pressure		Clarity of water supply		Odor of water supply		Overall Effectiveness	
	WM	AR	WM	AR	WM	AR	WM	AR	WM	AR
WSP1	4.27	VS	3.73	S	4.00	S	4.27	VS	**4.07**	**S**
WSP2	3.93	S	3.47	S	3.67	S	3.87	S	**3.74**	**S**
WSP3	4.31	VS	3.97	S	4.14	S	4.07	S	**4.12**	**S**
WSP4	4.31	VS	3.94	S	4.18	S	4.10	S	**4.13**	**S**
WSP5	3.00	N	3.67	S	3.33	S	3.33	N	**3.33**	**N**
WSP6	3.79	S	3.86	S	3.14	N	3.29	N	**3.52**	**S**
WSP7	4.50	VS	3.50	S	3.75	S	4.25	VS	**4.00**	**S**
WSP8	4.00	S	3.70	S	3.86	S	3.86	S	**3.86**	**S**
WSP9	3.13	N	2.71	N	3.56	S	3.53	S	**3.23**	**N**
WSP10	3.79	S	3.79	VS	3.79	S	3.79	S	**3.79**	**S**
WSP11	4.57	VS	4.36	VS	4.57	VS	4.93	VS	**4.61**	**VS**
COMPOSITE MEAN	**3.96**	**S**	**3.70**	**S**	**3.82**	**S**	**3.94**	**S**	**3.85**	**S**

The results show that the concessionaires have varying levels of satisfaction with service delivery. The WSPs with high overall satisfaction is WSP11, with a weighted mean of 4.61 and a "very satisfied" rating, while the WSPs with a low rating of "neither satisfied nor dissatisfied" are WSP5 and WSP9, with a weighted means of 3.33 and 3.23, respectively. The findings show the satisfaction of concessionaires in the development and implementation of strategies and actions that ensure the provision of 24-hour, pressure, clarity, and odor of water supply.

A low level of concessionaires' satisfaction with the service delivery of WSPs 5 and 9 indicates inadequate infrastructure, inability to develop proper maintenance of leaks and damages, and inefficient operations for the water service delivery. It is recommended that WSPs 5 and 9 should improve their overall satisfaction by improving their performance in all aspects of water quality and supply delivery. It may be useful to investigate why WSPs 5 and 9 got a low rating. The WSPs with the highest scores may serve as examples for other WSPs to follow to improve their service delivery.

The comments and suggestions provided by concessionaires during the survey highlight various issues related to water supply, including low water pressure, dirty water, foul odor, and intermittent water supply, among others. Based on the results of the survey, it is recommended that WSPs take action to address the issues raised by concessionaires. For instance, WSPs can install storage reservoirs and booster stations to increase water pressure and ensure a steady supply of water. WSPs should also improve water treatment processes to ensure better water quality, including reducing the chlorine taste and foul odor in the water supply. Additionally, WSPs should establish a communication mechanism with their concessionaires to promptly address concerns and provide updates on water supply issues. By addressing these concerns, WSPs can improve their level of effectiveness in delivering water supply and quality thereby increasing customer satisfaction.

Provision of good water quality is vital for water service providers requiring the implementation of appropriate measures to achieve the goal, which can be facilitated through the conduct of regular quality treatment and testing on various parameters including pH, residual chlorine, turbidity, and total coliforms (Chen et al., 2019). Critical to ensuring the provision of good water quality is putting in place proper water supply systems' maintenance and infrastructure thus preventing water contamination and maintenance of water quality, thereby achieving a higher level of satisfaction in service delivery (Gine-Garriga and Perez-Foguet, 2017; Serrat, 2020).

Table 4 arrays the level of concessionaires' satisfaction with the service rendered by WSPs in terms of inspection, maintenance, and leak repair requests.

Table 4: Level of Concessionaires' Satisfaction in Terms of Inspection, Maintenance and Leak Repair Request

Water Service Providers	Weighted Mean	Adjectival Rating
WSP1	2.91	Neither Satisfied or Dissatisfied
WSP2	3.00	Neither Satisfied or Dissatisfied
WSP3	3.82	Satisfied
WSP4	3.78	Satisfied
WSP5	3.33	Neither Satisfied or Dissatisfied
WSP6	2.77	Neither Satisfied or Dissatisfied
WSP7	3.50	Satisfied
WSP8	3.06	Neither Satisfied or Dissatisfied
WSP9	3.15	Neither Satisfied or Dissatisfied
WSP10	3.79	Satisfied
WSP11	4.60	Very Satisfied
COMPOSITE MEAN	**3.43**	**Satisfied**

Among the WSPs, WSP11 has the highest weighted mean of 4.60, which indicates that their concessionaires are "very satisfied" with their service. WSP3 and WSP4 have weighted means of 3.82 and 3.78, respectively, indicating that their concessionaires are "satisfied" with their service. WSP1, WSP2, WSP5, WSP6, WSP8, WSP9, and WSP10 have weighted means that fall under the "neither satisfied nor dissatisfied" rating with weighted mean ranging from 2.77 to 3.79 which suggests that there is room for improvement in these areas.

The composite mean for all the WSPs is 3.43, which falls under the "satisfied" adjectival rating. The finding connotes that the WSPs should focus on improving their inspection, maintenance, and leak repair services to increase concessionaires' satisfaction. WSPs with a low rating should analyze the feedback from the survey and identify areas where they need to improve their service quality. To improve their service quality, WSPs may consider investing in better equipment and tools for inspection and maintenance work. WSPs may also train their staff on customer service skills and develop more efficient processes for responding to leak repair requests. WSPs should strive to improve their effectiveness in providing inspection and preventive maintenance services, particularly leak inspections. This will help reduce the need for costly repairs and improve the overall reliability of the WSPs' water distribution systems. WSPs should also increase their efforts to promote awareness and accessibility of their services to concessionaires.

Concessionaires' satisfaction can be achieved in water service delivery through the conduct of inspection, maintenance, and repair, ensuring the proper functioning of water delivery systems and the provision of consumers with an uninterrupted and reliable supply of clean water (EPA, 2017). Regular inspection can be conducted in the water delivery system aimed at identifying potential problems that can cause water supply disruptions, which can be facilitated through the development of a well-established schedule for inspections, and making sure that the essential maintenance and repairs are promptly completed (IWA, 2019). Prompt repair of leaks in the water delivery system is vital in providing consumers with access to clean water, thus, the a need for the provision of a system for the detection of leaks and responding for quick repair (AWWA, 2017; WHO, 2011). An effective maintenance plan is required to be in place to address maintenance issues as they arise, ensuring the sustainability of water service delivery and the success of the water service provider (ASCE, 2011).

Response time to attend to inspection, maintenance, and leak repairs is a vital component to achieving the satisfaction of water service delivery by water service providers which water supply system requires regular inspection for identifying and addressing problems, and response time is dependent on the frequency of inspections, thus, ensure that the water operating system is operating effectively and efficiently (IWA, 2016). Regular maintenance can include the tasks of replacement of equipment, lubricating, and cleaning which can vary based on urgency level and type of equipment (Soto et al., 2017). Response time to reports of leaks should be prompt and requires prioritizing of repairs based on leak severity, which can lead to property damage or damage to infrastructure (WHO, 2011). An effective schedule is needed for inspections, leak repairs, and maintenance which need to be communicated to customers regarding response times (Deal and Sabatini, 2020).

Table 5 exhibits the perceived satisfaction of water service providers (WSPs) in terms of billing services based on the survey responses of concessionaires. The table shows two measures, the order and speed of receiving water bills and the correct reading of water consumption.

The result discloses that WSPs vary in their perceived effectiveness in billing services. WSPs 1,3,7 and 11, received an overall rating of "very satisfied" with a weighted mean ranging from 4.25 to 4.79, indicating a high level of satisfaction among its concessionaires. WSPs 2, 4, 5, 6, 8, 9, and 10 on the other hand, received a "satisfied" rating with a weighted mean ranging from 3.5 to 4.12.

The "very satisfied" rating of four (4) WSPs and "satisfied" rating of seven (7) WSPs of concessionaires in the billing service rendered by WSPs connotes a positive indicator of the water service provider's efficiency, transparency, customer service, financial management, data accuracy, and commitment to meeting regulatory standards. These factors collectively contribute to a satisfactory customer experience and the overall success of the water service provider in delivering reliable and transparent water billing services.

Table 6 conveys the results of a survey conducted among concessionaires on the level of satisfaction with service delivery by water service providers

(WSPs) in terms of communication. The survey focused on how WSPs address complaints and or queries through their hotline services and other communication channels, how they give notices and other activities, and how they enable payment using online payment platforms.

WSP 11 received the highest overall weighted mean of 4.32 rated as "very satisfied" while WSPs 3, 4, 7, and 10 have a rating of "satisfied" with a weighted mean ranging from 3.42 to 3.92. Subsequently, WSPs 1, 2, 5, 6, 8, and 9 have a low weighted mean ranging from 2.58 to 3.32 with a rating of "neither satisfied nor dissatisfied" indicating areas where they need to improve their communication strategies. The composite mean for all WSPs is 3.44, which falls under the "satisfied" rating. The result divulges deficiencies in the WSP's customer service, communication practices, and responsiveness. To improve customer satisfaction, the water service provider should focus on enhancing communication channels, promptly addressing complaints and queries, ensuring clarity in notices, streamlining online payment processes, and adopting a customer-centric approach to address the needs and concerns of their concessionaires effectively. By addressing these areas, the WSP can build trust, strengthen relationships with customers, and improve the overall service experience.

Table 5: Level of Satisfaction on Service Delivery by WSPs in Terms of Billing Service

Water Service Providers	Order and speed in receiving water bill		Correct reading of water consumption		Overall Mean	
	WM	AR	WM	AR	WM	AR
WSP1	4.27	VS	4.27	VS	**4.27**	**VS**
WSP2	4.07	S	4.17	S	**4.12**	**S**
WSP3	4.48	VS	4.71	VS	**4.60**	**VS**
WSP4	3.99	S	4.19	S	**4.09**	**S**
WSP5	3.67	S	3.33	N	**3.50**	**S**
WSP6	3.79	S	3.57	S	**3.68**	**S**
WSP7	4.00	S	4.50	VS	**4.25**	**VS**
WSP8	3.96	S	3.90	S	**3.93**	**S**
WSP9	3.15	N	3.89	S	**3.52**	**S**
WSP10	3.79	S	3.79	S	**3.79**	**S**
WSP11	4.71	VS	4.86	VS	**4.79**	**VS**
COMPOSITE MEAN	**3.99**	**S**	**4.11**	**S**	**4.05**	**S**

Table 6: Level of Satisfaction on Delivery by WSPs in Terms of Communication

Water Service Providers	Addressing complaints/ queries through the WPS's Hotline Services		Addressing complaints/queries through the WPS's e-mail, text message, Facebook account and other social media accounts		Giving notices and other activities of the WSP		Payment using online payment platforms		Overall Mean	
	WM	AR	WM	AR	WM	AR	WM	AR	WM	AR
WSP1	3.36	N	2.55	DS	3.45	S	3.91	S	**3.32**	**N**
WSP2	2.93	N	1.97	DS	3.77	S	3.60	S	**3.07**	**N**
WSP3	3.76	S	3.22	N	4.08	S	4.63	VS	**3.92**	**S**
WSP4	3.66	N	3.55	S	3.64	S	4.25	VS	**3.78**	**S**
WSP5	2.33	DS	2.33	DS	2.33	DS	3.33	N	**2.58**	**N**
WSP6	2.91	N	2.73	N	3.07	N	4.14	S	**3.21**	**N**
WSP7	3.50	S	3.67	S	2.75	N	3.75	S	**3.42**	**S**
WSP8	3.17	N	3.05	S	3.19	N	3.74	S	**3.29**	**N**
WSP9	2.65	N	2.53	DS	3.28	N	3.96	S	**3.11**	**N**
WSP10	3.79	S	3.79	S	3.79	S	3.79	S	**3.79**	**S**
WSP11	4.25	VS	4.11	S	4.29	VS	4.64	VS	**4.32**	**VS**
COMPOSITE MEAN	**3.30**	**N**	**3.05**	**N**	**3.42**	**S**	**3.98**	**S**	**3.44**	**S**

The survey also revealed several suggestions and comments from concessionaires on how WSPs can improve their communication strategies. These include assigning customer service staff who will attend to all hotline calls 24/7, responding promptly to complaints and queries through email and social media accounts, providing early announcements and updates during water service interruptions, and assigning dedicated staff to handle social media accounts.

The findings point out that effective communication is essential in providing quality water service delivery, and there are areas where WSPs need to improve their communication strategies. Based on the suggestions and comments from concessionaires, WSPs should prioritize prompt and efficient responses to complaints and queries, provide early announcements and updates during water service interruptions, and assign dedicated staff or outsource companies to handle communication channels such as social media accounts. By doing so, WSPs can enhance their level of effectiveness in communication and improve the overall satisfaction of their concessionaires.

Table 7 provides the results of a survey conducted among concessionaires to determine their perception of the level of satisfaction with service delivery by WSPs in terms of frontline services. The survey assesses three aspects of service delivery, namely fast payment/transaction, professional and polite attitude of employees, and well-ventilated, clean, and comfortable facilities.

The results show that the composite mean rating for fast payment/transaction is 4.11, for a professional and polite attitude of employees, is 4.01, and for facilities is 3.75, all with a rating of "satisfied". In summary, the level of satisfaction with the service delivery of WSPs in terms of frontline services has an overall rating of "satisfied" with a weighted mean of 3.96. WSPs 3 and 11 have the highest weighted mean rating of 4.32 and 4.88 respectively, both with a rating of "very satisfied", while WSP6 has the lowest rating of neither satisfied nor dissatisfied with a weighted mean of 3.51. The findings reflect the water service provider's commitment to customer service excellence and operational efficiency. By prioritizing customer needs, investing in employee training, and maintaining a customer-centric culture, the WSP can enhance customer satisfaction, foster customer loyalty, and solidify its position as a reliable and customer-friendly water service provider within the community.

The survey also revealed that some concessionaires experienced rude customer service personnel, which indicates a need for WSPs to improve their customer service training. Additionally, some concessionaires suggested that WSP offices should be made more presentable to enhance the image and branding of the WSPs.

Based on the results of the survey and the feedback from concessionaires, it is recommended that WSPs prioritize customer service training for their personnel, specifically on how to deal with irate customers. Moreover, WSPs should consider investing in improving the physical appearance of their offices to create a positive impression and enhance their branding. By doing so, WSPs can improve their level of effectiveness in delivering frontline services, which is crucial in maintaining customer satisfaction and loyalty.

Table 8 summarizes the overall level of concessionaires' satisfaction with the service rendered by the water service providers (WSPs) in terms of water quality and supply, maintenance and leak repair, billing service, communication, and frontline services.

The result shows that WSP 11 has the highest rating of very satisfied with a weighted mean of 4.64 while WSPs 1, 2, 3, 4, 7, 8, and 10 have a "satisfied" rating with a weighted mean ranging from 3.50 to 4.16 for the overall level of concessionaire satisfaction. On the other hand, WSPs 5, 6, and 9 have the lowest rating of "neither satisfied nor dissatisfied" with a weighted mean ranging from 3.34 to 3.40.

Table 7: Level of Satisfaction on Service Delivery by WSPs in Terms of Frontline Services

Water Service Providers	Fast payment/transaction in the office		Professional and polite attitude of employees		Facilities are well ventilated, clean and comfortable		Overall Mean	
	WM	**AR**	**WM**	**AR**	**WM**	**AR**	**WM**	**AR**
WSP1	4.09	S	4.09	S	3.00	N	**3.73**	S
WSP2	3.73	S	3.93	S	3.03	N	**3.56**	S
WSP3	4.23	VS	4.28	VS	4.46	VS	**4.32**	VS
WSP4	3.97	S	3.92	S	4.28	VS	**4.06**	S
WSP5	4.33	VS	4.33	VS	3.33	N	**4.00**	S
WSP6	3.71	S	3.36	N	3.46	S	**3.51**	N
WSP7	4.75	VS	4.25	VS	3.00	N	**4.00**	S
WSP8	3.74	S	3.61	S	3.67	S	**3.67**	S
WSP9	3.91	S	3.78	S	4.27	VS	**3.99**	S
WSP10	3.79	S	3.79	S	3.79	S	**3.79**	S
WSP11	4.93	VS	4.79	VS	4.93	VS	**4.88**	VS
COMPOSITE MEAN	**4.11**	**S**	**4.01**	**S**	**3.75**	**S**	**3.96**	**S**

Table 8: Overall Level of Concessionaires' Satisfaction with the Service Rendered by WSPs

WSPs	**Water Quality and Supply**	**Inspection, Maintenance and Leak Repair**	**Billing Service**	**Communication**	**Frontline Services**	**WM**	**AR**
WSP1	4.07	2.91	4.27	3.32	3.73	**3.66**	S
WSP2	3.74	3.00	4.12	3.07	3.56	**3.50**	S
WSP3	4.12	3.82	4.60	3.92	4.32	**4.16**	S
WSP4	4.13	3.78	4.09	3.78	4.06	**3.97**	S
WSP5	3.33	3.33	3.50	2.58	4.00	**3.35**	N
WSP6	3.52	2.77	3.68	3.21	3.51	**3.34**	N
WSP7	4.00	3.50	4.25	3.42	4.00	**3.83**	S
WSP8	3.86	3.06	3.93	3.29	3.67	**3.56**	S
WSP9	3.23	3.15	3.52	3.11	3.99	**3.40**	N
WSP10	3.79	3.79	3.79	3.79	3.79	**3.79**	S
WSP11	4.61	4.60	4.79	4.32	4.88	**4.64**	VS
Composite Mean	**3.85 S**	**3.43 S**	**4.05 S**	**3.44 S**	**3.96 S**	**3.75**	**S**

Among the services rendered by WSPs, billing services have the highest composite mean of 4.05 while inspection, maintenance, and leak repair services have the lowest composite mean of 3.43, both with a rating of "satisfied". The best performing WSP is WSP11 with the highest overall rating of "very satisfied" with a weighted mean of 4.64 while WSPs 5, 6, and 9 have the lowest rating of "neither satisfied nor dissatisfied with a weighted mean ranging from 3.34 to 3.40. The remaining WSPs 1, 2, 3, 4, 7, 8, and10 have a "satisfied" rating with a weighted mean ranging from 3.50 to 4.16.

Findings also impart that WSPs 5, 6, and 9 need to improve their services to reach a "very satisfied" level of satisfaction from the concessionaires. WSPs 1, 2, 3, 4, 7, 8, and 10 can maintain their current level of service or further improve to achieve a "very satisfied" level of satisfaction. WSPs should benchmark against WSP11, which recorded the highest rating for the level of satisfaction and weighted mean, to learn from their best practices and improve their services. WSPs should aim to provide excellent service to increase concessionaires' satisfaction and maintain their trust and loyalty.

5. Conclusion and Recommendation

The concessionaires have varying levels of satisfaction with the service delivery of WSPs in terms of water quality and supply, inspection, maintenance and leak repair, billing, communication, and frontline services. While the overall satisfaction level of concessionaires on the service rendered by WSPs is "satisfied", there is still room for improvement. WSPs should focus on identifying areas for improvement and taking steps to enhance their service quality to increase customer satisfaction.

However, WSPs with lower satisfaction ratings should take steps to improve their service delivery and should take into consideration the feedback and complaints of their concessionaires to identify areas of improvement. Moreover, WSPs should benchmark with high-performing WSPs in terms of concessionaire satisfaction to learn from their best practices and continuously monitor and improve their service delivery. Lastly, WSPs should aim to provide excellent service that meets the highest standards possible to achieve the highest level of concessionaire overall satisfaction.

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