

The Impact of Public Service and Waste Management towards Community Satisfaction in the Kampo Alor Village, Dili Timor Leste

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ABSTRACT

The objective of this research is to identify and explore the impact of public service and waste management on community satisfaction in the village of Kampo-Alor, Dili, Timor-Leste. The research method used in this study is the quantitative method. The total population of the research is 3,351 and a sample of 100 people was taken from the total population using an accidental sampling technique. The data collection methods used in this research are observation, questionnaire, and literature review. The data obtained by the researcher will be analyzed using SPSS version 20.0. The results of this research show that the R-Square value is 0.402 or 40.2%, indicating that the variables of public service and waste management can explain community satisfaction to a certain extent. Furthermore, it is found that there is a positive and significant impact of public service on community satisfaction, while waste management does not have an impact on community satisfaction. Additionally, the simultaneous impact of public service and waste management on community satisfaction in the village of Kampo-Alor, Dili, Timor-Leste.

Keywords: public service, waste management, community satisfaction

I. INTRODUCTION

A. Background

The development of a sovereign nation, especially in cities, villages, and communities, ensures that government institutions or organizations have the primary objective of providing satisfaction to the community. This can be achieved through excellent and quality services that meet the needs of the community. The quality of service becomes an important pillar that influences the community's satisfaction in a safe and healthy environment.

The main principle in determining community satisfaction is the quality of service provided and the expectations that are controlled. Service is highly important to the community because when it is good and of high quality, it increases the level of trust from the community towards the government or relevant institutions. Public service interpretation is to provide services that meet the needs of the community and also to achieve organizational goals related to established rules and procedures within the organization. With this, the community can understand and be satisfied with the quality of service provided by the relevant parties in the villages and sub-villages.

Timor-Leste is a small country in Asia that needs to adapt to a safe and healthy environment. Various human activities, such as domestic activities, development, trade, industry, agriculture, fishing, transportation, animal husbandry, and others, have influenced the needs of the community. As a result, waste has become a major problem for the community. The increasing number of activities has led to an increase in waste volume due to the growing population and the lack of awareness and responsibility toward maintaining a healthy environment.

The problem of waste has become a significant issue that affects the community, particularly in the village of Kampo Alor in Dili. Waste, including non-valuable items that cannot be properly disposed of, has become a matter of national concern as it is generated by individuals and poses a risk to human health. Improper waste disposal can result in the spread of harmful microorganisms and bacteria, leading to diseases. When waste is not appropriately disposed of in designated areas and ends up in ditches or roadsides, it causes problems such as pollution, obstruction, and even flooding during the rainy season. Waste typically consists of unused materials discarded by individuals.

Timor-Leste also faces a significant threat from plastic waste, as plastic waste takes a long time to decompose, and when it does not decompose, it cannot make way for natural processes to support the survival of the environment. According to a study by the Asian Development Bank (ADB), Dili City produces 120-150 tons of waste every day. Out of this total, 44% consists of green waste and food waste. At the same time, paper and cardboard make up 18% of the waste, while organic waste accounts for 64%. This means that 46% of the waste consists of non-organic materials such as plastic (18%), hazardous chemicals, scrap metal, electronic waste, glass, batteries, and other solid waste from commercial or industrial activities. Plastic waste comes in various forms such as plastic bottles, plastic bags, plastic packaging, and other types, which not only pose a threat by causing blockages but also physically occupy important ecosystems and pose a threat to food chains and natural ecosystems.

According to the sources, in 2016, the government approved government resolution no.32/2016 regarding the strategic plan for improving waste management in Dili City. From this resolution, the government committed to investing \$20 million in waste management, but as of now, this investment has not been realized. The waste produced in the city consists of 33% organic waste, 18% paper waste, 18% plastic waste, 12% food waste, and other types of waste.

According to Urbana (2018), the community in Dili produces 220 tons of waste every day, with 20 tons or 55% being taken to the Tibar landfill and 45% being dumped in rivers, streets, burned or buried. As stated by Mr. Demétrio de A. De C. (2019), data shows that in Dili, 250 tons of waste are produced daily, but only 45% is collected or picked up, while 50% is left on the streets or dumped in the ocean, and some are burned.

The government is taking maximum attention to address the issue of waste management in the city of Dili. Every day, 180 tons of waste are collected and transported using 54 trucks. Each truck can carry two loads in one day, according to information from Mr. Hermínio Moniz Ribeiro.

Based on the information mentioned above, the researchers conducted direct observations in the field to assess the level of awareness and responsibility of the community in managing waste effectively to prevent various diseases in the community. The community tends to dispose of waste in inappropriate locations. The municipal sanitation service in Dili is unable to collect all the waste in the capital city due to the increasing volume of waste each day.

The provided text discusses an interview conducted with Mrs. Teresinha Exposto, a resident of the Kampo Alor community, to gather her perspective on the state of waste vehicles in Dili. It is noted that numerous vehicles on the streets transport uncovered waste, resulting in the spread of garbage along the road. Consequently, individuals riding motorcycles experience unpleasant odors and dirt on their clothing and land. This issue could be avoided if there were a designated location for waste collection rather than simply dumping it in Tibar. The study aimed to investigate the influence of public service delivery and waste management on community satisfaction at Kampo Alor Village, Dili Timor Leste.

II. LITERATURE REVIEW

A. Public Service

Public service is the provision of services to meet the needs of individuals or society, and organizations or institutions need to provide this service in a dignified and quality manner based on regulations or organizational procedures. The objective of public service is to achieve community satisfaction related to credible issues. According to Hayat (2017), public service should be based on existing regulations that the community relies on. In addition, Mukaron and Laksana (2016) state that public service is about meeting the personal or community needs that are of interest to the organization based on certain criteria. Public service involves activities carried out by relevant providers with considerable effort to meet the community's needs and achieve community satisfaction. It is also carried out by public/government institutions' employees who provide services to all citizens while striving to protect collective interests and take maximum responsibility to provide good results.

According to Kotler & Keller (2018:35), Public service refers to actions or activities provided by one party to another based on specific outcomes. Generally, providing well and quality service also satisfies the community. Issues related to service delivery include the human factor, such as the service provider's attitude and

attractiveness. The principle and concept of service delivery have various types and formats of activities provided to clients or relevant parties to provide satisfaction.

According to Suandi (2019), the key factors that influence satisfaction are as follows; human resources, conscience, organization procedure, ability and knowledge, service equipment, and community experience.

B. Waste Management

Waste, which is the result of everyday activities and natural processes, is a widespread issue faced by many countries throughout different seasons (Suyoto, 2008). Nugroho (2013) defines waste as discarded items that may be considered worthless, yet can still be utilized if proper procedures are followed. Azwar (1999) further explains that waste is unused material predominantly generated by human activities, which can be potentially harmful.

Belo (2019) divides the qualities of waste into two categories, such as: 1. Waste that is created by farming, fishing, and other activities, or that is a combination of animal excrement and leftover food from the environment is known as organic waste 2). Waste that originates from nature but is not replenished, such as mineral and petroleum garbage, or waste created by industrial operations is referred to as non-organic waste. Certain materials are not found in nature, such as plastic and aluminum.

Recycling techniques have helped non-organic trash, like paper, plastic, and bottles, and glass. Reduction: We can utilize fewer materials overall, which will help us make better use of them. b. Reuse: We can gather up the recyclable items. These materials can be put to further use after usage. We will prolong the period it takes for these materials to degrade into garbage by doing this. c. Recycle: Materials that have lost their value can be renewed or used again; paper, for instance, can be used again for different purposes. d. Replacement: Treat the items we use daily with care. Materials that are useful but break easily can be swapped out for materials that last a long time.

C. Community Satisfaction

According to Kotler (2004), community satisfaction is the feeling of contentment or unhappiness that arises from comparing the performance (results) of a product or service with our detailed desires. Consumer satisfaction can also be defined as the attitude or action exhibited by consumers towards the products and services they have received and used. The satisfaction of the community and its people is not only important to determine the success of our governance, but also the community's evaluation of its products and the real form of its service system.

Along with public trust in the institution being mentioned, community happiness with significant public organizations is crucial. Pasolong (2010) asserts that providing high-quality services and implementing sound governance practices can boost social trust (high trust). When members of the community are not content with the services they receive and do not receive good treatment, trust in society is severely undermined. Umar (2001) defines satisfaction as the sentiment experienced by the community when comparing what it wants and what it

receives. Since community assessment of a product is a genuine kind of assessment for a service delivery system, community satisfaction plays a critical role in determining a government's performance.

III. CONCEPTUAL FRAMEWORK

According to Umar Sekaran (1992), as cited by Sugiyono (2012), the framework of thinking refers to a conceptual model that explains the relationship between various factors identified as important problems. A well-developed framework should theoretically explain the relationship between the independent and dependent variables in a study. It should also justify the inclusion of the moderator and intervening variables. These relationships are then formulated in the form of a research paradigm. Therefore, each research paradigm should be based on a framework of thought (Sugiyono, 2012). In this study, the conceptual framework for examining the impact of public Service Quality and waste management on community satisfaction can be summarized as follows:

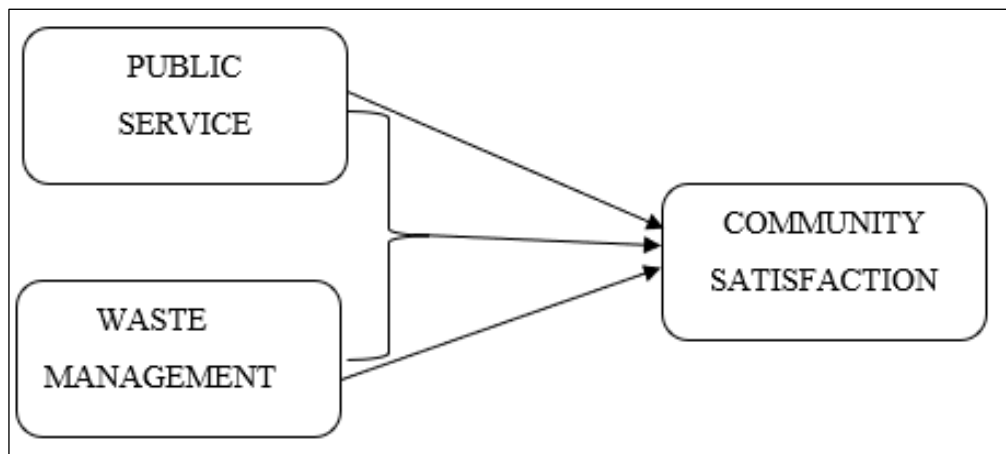


Figure 1. Conceptual Framework

IV. RESEARCH METHOD

The research method used in this study was a scientific approach to gather data with specific objectives. It was based on variables determined by the researcher, making it a quantitative study. The total population in this study was 3,531, with a sample size of 100 people using the accidental sampling method. The data collection technique uses questionnaires. The data analysis method used multiple regression analysis.

V. RESULTS

A. Multiple Regression Analyses

Table 1. Multiple Regression Analysis

Variable	B	B	T count	Sig
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Constanta	10.814		12.010	0.000
Public Service (X1)	0.298	0.614	7.750	0.000
Waste Management (X2)	0.050	0.094	1.192	0.236
R	= 0.634	F count	= 32.575	
R Square	= 0.402	Sig F	= 0.000	
Adjusted R Square = 0.389				

Based on the table above, the formula for multiple regression analysis is as follows: $Y = a + bX_1 + bX_2 + \dots + bX_n$. According to this formula, the result of the multiple regression equations is $Y = 10.814 + 0.298X_1 + 0.050X_2$. The constant value and total of 10.814, along with its significant variables of public service delivery and waste management with a value of zero, indicates that the community satisfaction value is significantly influenced by a total of 10.814.

The regression coefficient value for the public service variable is positive at 0.298. This result means that when public service increases by 1, the community satisfaction value also increases by 0.298. The regression coefficient value for the waste management variable is positive at 0.050. This result means that when waste management increases by 1, the community satisfaction value also increases by 0.050.

B. Hypothesis Test

The table above shows the values of the t-test for the variables of public service (X1) and waste management (X2) on community satisfaction in the village of Kampo-Alor, Timor-Leste. The t-test value for public service is 7.750 with a significance value of 0.000, indicating a significant impact on community satisfaction. On the other hand, the t-test value for waste management is 1.192 with a significance value of 0.236, indicating no significant impact on community satisfaction. Additionally, the F-test value is 32.575 with a significance value of 0.000, indicating a significant simultaneous impact of public service and waste management on community satisfaction in Kampo-Alor, Timor-Leste.

The R-Square coefficient of determination value of 0.402 indicates that 40.2% of community satisfaction can be explained by the independent variables of public service and waste management. In other words, these variables contribute to 40.2% of the overall satisfaction. Additionally, the results suggest that the community in Kampo-Alor is not satisfied with the current model of public service and waste management implemented by the sanitation personnel in the area. Furthermore, the remaining 59.8% of community satisfaction is influenced by other variables that were not included in the study.

VI. CONCLUSION

A. Discussions

Based on the analysis of the data from this research, it can be summarized that:

1. Public service, as described by indicators of physical evidence, trust, adaptation, guarantee, and empathy, has a positive and significant impact on community satisfaction in the village of Kampo Alor, Timor-Leste.
2. Waste management, as described by indicators of reuse, reduce, recycle, and replace, does not have a significant impact on community satisfaction in the village of Kampo Alor, Timor-Leste.
3. Public service and waste management have a simultaneous impact on community satisfaction in the village of Kampo Alor, Timor-Leste.

B. Suggestions

Based on the results of this study, the researcher suggests the following recommendations for entities and communities:

1. **Municipal Administration of Dili:** It is recommended that the government create organic and non-organic waste bins in the communities to facilitate sanitation services and ensure proper waste disposal. Additionally, provide training or information sessions to communities on how to have basic knowledge of recycling the waste they produce, such as kitchen waste, plastic from stores, and others. Also, the Municipal Administration of Dili should provide training or workshops on how to use the 4R model (reuse, reduce, recycle, and replace) for waste management in the community.
2. **Communities:** To prevent careless garbage disposal on streets, in drainage channels, in public spaces, or in neighborhoods, communities are asked to collaborate with the government. In addition, communities have an ethical obligation to protect the environment in which they reside. Communities that are proficient in managing garbage through the 4R model can also impart information or expertise to other communities.

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