The Effect if Motivation on Environmental Management Behavior in Fishers on the Mamuju River Based in West Sulawesi Province

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ABSTRACT---- *Sanitation management on the river banks is still one of the difficult problems to be handled by the government. This is due to the lack of community participation in maintaining environmental sanitation around riverbanks. This lack of awareness makes sanitation around riverbanks look slum. Given these problems, the researchers conducted a study that aims to see the influence of intrinsic motivation and extrinsic motivation partially on environmental management behavior. Furthermore, to see the influence of intrinsic motivation and extrinsic motivation simultaneously on environmental management behavior on the banks of the Mamuju river. This study uses descriptive analysis with inferential quantitative data analysis techniques. The location of this research is in Mamuju District. The population of this research is people who live around the banks of the Mamuju river. The sampling technique used purposive sampling so that 120 samples were obtained who lived around the banks of the Mamuju river. The results of this study indicate that the motivation and behavior of community environmental management are still in the low category. Furthermore, both intrinsic and extrinsic motivation partially have no effect on environmental management behavior. Furthermore, simultaneously intrinsic and extrinsic motivation also has no significant effect on environmental management behavior on riverbanks.*

Keywords--- Sanitation, Motivation, Behavior
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1. INTRODUCTION

The government's handling of environmentally sound sanitation is still facing many obstacles [1]. The number of existing facilities is not proportional to population growth. In addition, people in many areas still practice unhealthy lifestyle behaviors, such as defecating in any place, washing in rivers where the water is dirty, and littering.

The environment in the modern world includes water, air, and land. It consists of the social and economic conditions in which we live. The key word in human health lies in the environment [2]. A person's health can be seen from the presence of adverse environmental factors such as water, soil and air pollution, slum housing conditions, the presence of vectors and reservoirs that can give rise to insects that can threaten human health. Often, humans have to accept the consequences of environmental pollution. They are caused by urbanization, industrialization and development activities [3].

Around 22% of Indonesia's urban population (approximately 29 million people) is estimated to live in slum areas with low access to minimum services. More than 50% of the poor live in slum areas. In 2015, the Government of Indonesia identified around 38,000 ha of slum areas based on the Decree of the Minister of Public Works and Public Housing, based on slum areas being a congested environment and lack of access infrastructure and irregular buildings. These slum areas are spread over more than 3,500 sub-districts. They are generally characterized by substandard housing, inadequate access to urban infrastructure and services (water, sanitation, roads), poor environmental health, vulnerability to natural disasters, and in larger cities, overcrowded houses [4].

Regarding the inadequacy of infrastructure and services, residents in slum areas seem to pay disproportionately more than urban residents in other areas. While most households in slum areas in Indonesia have secure tenure over land, some slums are informal settlements located on illegally occupied land; however, current urban policies and planning do not address this issue [5].

The riverbank area is very important because it has a huge diversity of natural resources, including fishing and port activities [6]. But on the other hand, the problem of the declining level of welfare of the local community and the lower quality of the environment and natural resources are the main problems in the Mamuju riverbank area, especially the downstream. Given this, community empowerment is one thing that needs to be done to preserve the environment and river functions in general.

Changes in water quality conditions in river flow impact discharge from existing land uses [7]. Changes in land-use patterns on riverbanks into settlements and increased industrial activity will impact the hydrological conditions in a watershed. In addition, various human activities in meeting their daily needs from industrial activities, households will produce waste that contributes to the decline in river water quality [8]. There are still many Indonesians who defecate in open places such as in rivers and on the beach, which of course causes poor water quality, especially in water sources that should be a source of livelihood for residents, with a high population level. Still, low environmental awareness further exacerbates the condition. The.

Based on the results of the initial survey conducted by researchers, it was found that the quality of the environment inhabited by fishing communities on the downstream side of the Mamuju river, seen from the indicators: (1) disposing of river waste is still carried out by some fishing communities on the downstream side of the Mamuju river, (2) dumping feces in any place (from boats) still occur in fishing communities along the downstream Mamuju river because not all have permanent restrooms, (3) household water needs do not yet have a clean water purification model that is safe for human health. These three indicators indicate that the fishing communities' knowledge, attitudes, and behavior on the downstream side of the Mamuju river in maintaining the environment are still low.

The problems of fishing communities, especially on the downstream side of the Mamuju River, are generally employment problems, increased poverty, social insecurity due to rising unemployment rates, low health and education services, piles of household waste. There are still people who practice defecation in the open. Rivers have the potential to cause the spread of disease. Therefore, the behavior of providing healthy latrines, knowledge about healthy restrooms, and motivation to provide wholesome family latrines are also expected to be owned by fishing communities on the downstream side of the Mamuju river after attending environmental sanitation counseling.

The significant increase in population and changes in people's consumption patterns indirectly increase waste volume, type and characteristics, and even more diversity. The waste problem that arises is essentially a national problem that needs to be handled comprehensively and integrated. Waste management is economical, healthy for the community, safe for the environment, and can change people's behavior.

The behavior of environmental management by the community dramatically affects the quality of the environment. However, the behavior is formed by a person's motivation or desire to act. In general, motivation can be divided into two aspects that intrinsic and extrinsic motivation. Intrinsic motivation is the desire to work caused by driving factors within the individual. The behavior occurs without being influenced by environmental factors. In contrast, extrinsic motivation is the desire to act due to external or ecological driving factors [9]. Therefore, researchers want to see how much intrinsic and extrinsic motivation influence environmental management behavior around riverbanks in Mamuju District, Mamuju Regency, North Sulawesi.

2. METHOD

This research uses descriptive analysis and quantitative inferential analysis. This research is located in Binanga Village, Mamuju District, Mamuju Regency, West Sulawesi Province. The selection of this research location was based on the observation that Binanga Village is a village directly adjacent to the Mamuju river, which has the densest and slum housing. The population of this research is all fishermen who live around the banks of the Mamuju River. The sample collection technique used purposive sampling with a total of 120 samples. The variables in this study consisted of the independent variable, namely motivation and the dependent variable, namely the behavior of environmental management on the river banks.

3. RESULT

3.1. Descriptive Analysis

3.1.1. The intrinsic motivation of the community in carrying out environmental management on the banks of the Mamuju river.

The data analysis shows the min value is 1.92, the mas value is 2.90, the mean is 2.23, and the standard deviation is 0.17. The following are the results of the intrinsic motivation analysis.
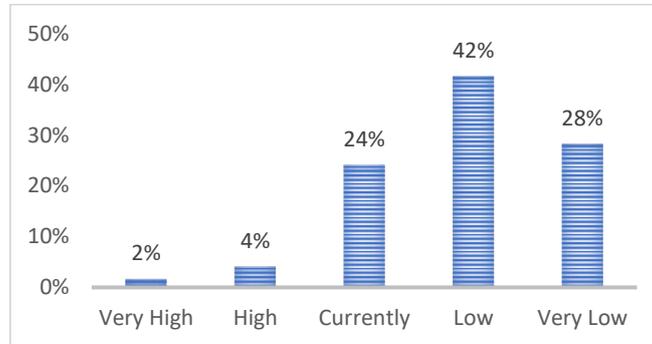

Figure 1. Intrinsic Motivation towards Mamuju Riverbank Environmental Management

Based on Figure 1, it can be seen that the intrinsic motivation of the people living on the banks of the Mamuju river is in a low category. This illustrates that the community does not have the desire or awareness of the importance of environmental management around riverbanks.

3.1.2. The extrinsic motivation of the community in carrying out environmental management on the banks of the Mamuju river

The data analysis shows a min value of 1.90, a max value of 4.00, a mean of 2.52 and a standard deviation of 0.37. The following are the results of the analysis of extrinsic motivation.
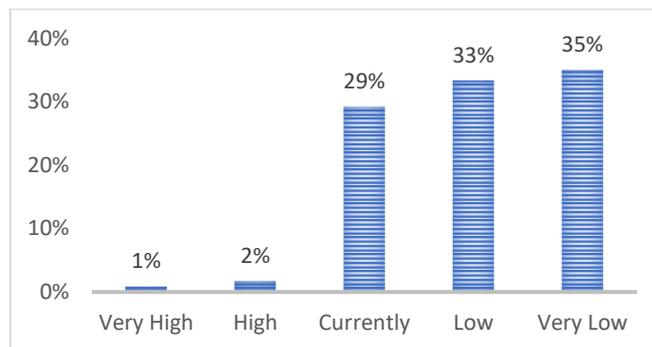

Figure 2. Extrinsic Motivation for Environmental Management of the Mamuju River Basin

Based on Figure 2, it can be seen that the extrinsic motivation of the community is in the deficient category with a value of 35%. This indicates that the community has no interest or intention to participate in any environmental hygiene programs implemented by government agencies.

3.1.3. The behavior of maintaining the cleanliness of community housing in carrying out environmental management on the banks of the Mamuju river

The data analysis shows a min value of 1.78, a max value of 2.41, a mean of 2.08 and a standard deviation of 0.11. The

following are the results of the analysis of the behavior of the housing maintenance community.
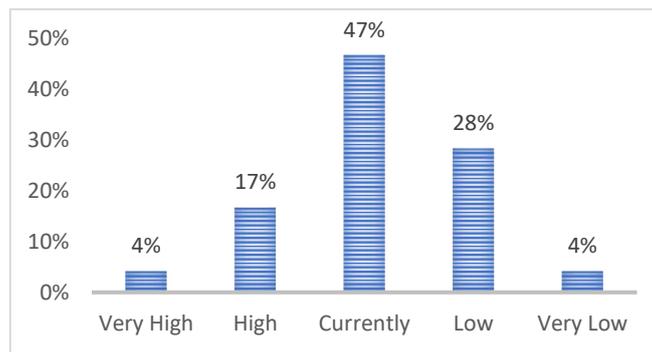

Figure 3. The behavior of Housing Hygiene Maintenance on Mamuju River Bank Environmental Management

Based on Figure 3 above, it can be seen that maintaining the cleanliness of public housing is in the moderate category. This indicates that some people have the awareness to participate in maintaining the cleanliness of the housing environment.

3.1.4. The behavior of community waste management in carrying out environmental management on the banks of the Mamuju river

The data analysis shows a min value of 1.90, a max value of 2.37, a mean of 2.10 and a standard deviation of 0.08. The following are the results of the analysis of the behavior of the housing maintenance community.
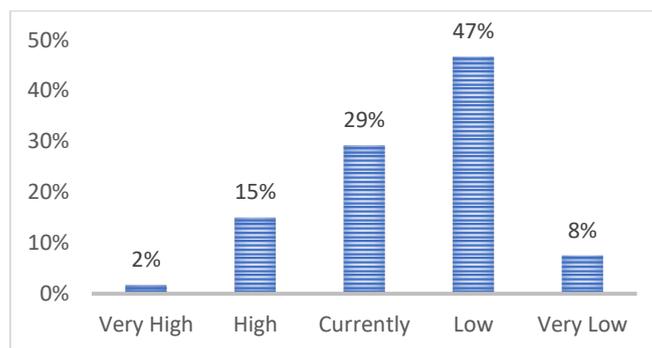

Figure 4. Waste Management Behavior towards Mamuju River Bank Environmental Management

Based on Figure 4 above, it can be seen that community behavior in waste management is in a low category. This illustrates that the community does not desire to sort organic and inorganic waste.

3.1.5. Community clean water management behavior in managing the environment on the banks of the Mamuju river

The data analysis shows a min value of 1.66, a max value of 2.60, a mean of 2.10 and a standard deviation of 0.13. The following are the results of the analysis of the behavior of the housing maintenance community.
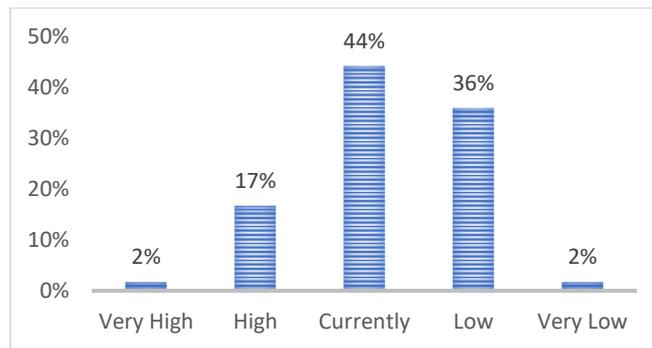
Figure 5. Clean Water Management Behavior towards Mamuju River Bank Environmental Management

Based on Figure 5 above, it can be seen that the behavior of clean water management is in the moderate category with a value of 44%. This illustrates that some communities do not yet have good sanitation.

3.2. Partial t-Test Regression Analysis

This partial t-test wants to see the influence of the independent variable partially on the dependent variable.

Table 1. The Influence of Intrinsic Motivation on Environmental Hygiene Behavior

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.001	1	.001	.063	.802[b]
1	Residual	1.497	118	.013		
	Total	1.498	119			

a. Dependent Variable: Environmental Hygiene Behavior
b. Predictors: (Constant), Intrinsic Motivation

The analysis results above show that the sig value is $0.802 > 0.05$. Intrinsic motivation does not have a significant effect on environmental hygiene behavior.

Table 2. The Effect of Extrinsic Motivation on Environmental Hygiene Behavior

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.010	1	.010	.805	.371[b]
1	Residual	1.488	118	.013		
	Total	1.498	119			

a. Dependent Variable: Environmental Hygiene Behavior
b. Predictors: (Constant), Extrinsic Motivation

The results of the analysis above show that the sig value is $0.371 > 0.05$, so extrinsic motivation does not have a significant effect on environmental hygiene behavior.

Table 3. The Influence of Intrinsic Motivation on Waste Management Behavior

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.001	1	.001	.123	.726[b]
1	Residual	.795	118	.007		
	Total	.796	119			

a. Dependent Variable: Waste Management Behavior
b. Predictors: (Constant), Intrinsic Motivation

The above analysis results show that the sig value is 0.726 > 0.05, so intrinsic motivation does not significantly affect waste management behavior.

Table 4. The Effect of Extrinsic Motivation on Waste Management Behavior

ANOVAᵃ

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.014	1	.014	2.152	.145ᵇ
1	Residual	.782	118	.007		
	Total	.796	119			

a. Dependent Variable: Waste Management Behavior
b. Predictors: (Constant), Extrinsic Motivation

The results of the analysis above show that the sig value is 0.145 > 0.05, so extrinsic motivation does not have a significant effect on waste management behavior.

Table 5. The Influence of Intrinsic Motivation on Clean Water Management Behavior

ANOVAᵃ

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.002	1	.002	.105	.746ᵇ
1	Residual	2.182	118	.018		
	Total	2.184	119			

a. Dependent Variable: Clean Water Management Behavior
b. Predictors: (Constant), Intrinsic Motivation

The results of the analysis above show that the sig value is 0.746 > 0.05, so intrinsic motivation does not have a significant effect on clean water management behavior.

Table 6. The Effect of Extrinsic Motivation on Clean Water Management Behavior

ANOVAᵃ

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.000	1	.000	.000	.999ᵇ
1	Residual	2.184	118	.019		
	Total	2.184	119			

a. Dependent Variable: Clean Water Management Behavior
b. Predictors: (Constant), Extrinsic Motivation

The results of the analysis above show that the sig value is 0.999 > 0.05, so extrinsic motivation does not have a significant effect on clean water management behavior.

3.3. Simultaneous f Test Analysis

This simultaneous f test wants to see the effect of the independent variable simultaneously on the dependent variable.

Table 7. The Influence of Intrinsic and Extrinsic Motivation on Environmental Hygiene Behavior

ANOVAᵃ

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.011	2	.005	.428	.653ᵇ
1	Residual	1.487	117	.013		
	Total	1.498	119			

a. Dependent Variable: Housing Hygiene Behavior
b. Predictors: (Constant), Extrinsic Motivation, Intrinsic Motivation

The above analysis results indicate that the sig value is 0.653 > 0.05, so the intrinsic and extrinsic motivation together do not significantly affect environmental hygiene behavior. This indicates that the community is aware of the cleanliness of the housing, but the community considers the cleanliness of the housing to be carried out only during cooperation.

Table 8. The Influence of Intrinsic and Extrinsic Motivation on Waste Management Behavior

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.015	2	.008	1.139	.324[b]
1	Residual	.781	117	.007		
	Total	.796	119			

a. Dependent Variable: Waste Management Behavior
b. Predictors: (Constant), Extrinsic Motivation, Intrinsic Motivation

The results of the analysis above show that the sig value of 0.324 > 0.05, then the intrinsic motivation and extrinsic motivation together do not have a significant effect on waste management behavior. This illustrates that the community feels that the government is responsible for managing waste around the banks of the Mamuju river.

Table 9. The Influence of Intrinsic and Extrinsic Motivation on Clean Water Management Behavior

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	.002	2	.001	.052	.949[b]
1	Residual	2.182	117	.019		
	Total	2.184	119			

a. Dependent Variable: Clean Water Management Behavior
b. Predictors: (Constant), Extrinsic Motivation, Intrinsic Motivation

The analysis results above show that the sig value is 0.949 > 0.05. The intrinsic motivation and extrinsic motivation together do not significantly affect the behavior of clean water. This indicates that the community considers the water around the riverbanks to be suitable for use so that the community does not take the initiative to carry out proper clean water management.

4. DISCUSSION

The low behavior of the community in carrying out environmental management is one of the main factors in ecological damage on the riverbanks. The damage that occurs has many negative impacts on people's lives. The lack of public awareness to protect the environment along the river can be seen from the lack of self-motivation to protect the environment and not being involved in any government programs. The community considers that the cleanliness of riverbanks is still the government's responsibility. Therefore, it is necessary to provide counseling and community empowerment about the importance of maintaining and preserving the environment on the river banks. With the extension program and community empowerment, it is hoped that it will increase the community's knowledge, motivation, and awareness in managing the environment, especially sanitation around the Mamuju riverbank. This is in line with [10], which states that knowledge greatly contributes to community behavior or habits in solving environmental problems, especially riverbanks.

Managing the sanitation environment around the riverbanks is a shared responsibility of both the government and the surrounding community. Environmental sanitation hygiene greatly affects the health and survival of the community. Poor sanitation from an environmental perspective affects the sustainability of the existing environment. The common knowledge and understanding of the community about the importance of environmentally sound sanitation, unhealthy settlements can be seen from the behavior of people who are less concerned about their environment. This is indicated by the presence of some people who practice unhealthy lifestyles, such as using rivers as a means of clean water for their daily needs and the habit of disposing of the household waste directly into rivers and around residential locations that have the potential to cause disease outbreaks.

5. CONCLUSION

Based on the results of the study, it was found that:

1. The internal motivation of the people living around the riverbanks is in a low category, while the external motivation is in the deficient category.

2. Hygiene maintenance behavior and clean water management behavior are in the medium category, and waste management behavior on the banks of the Mamuju river is in a low category.

3. Internal and external motivation partially does not affect the behavior of maintaining cleanliness, waste management and clean water management around the banks of the Mamuju river.

4. Simultaneous internal and external motivations do not affect the behavior of maintaining cleanliness, waste management and clean water management around the banks of the Mamuju river.

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