JURNAL ILMU LINGKUNGAN
Volume 22 Issue 3 (2024) : 743-755 *ISSN 1829-8907*

The Determinant Factors of Community Involvement in Becoming a Customer of the Waste Bank in Tamanjaya Village, Tamansari District, Indonesia

Nissa Noor Annashr[1*], Andy Muharry[1], Dadan Yogaswara[1], and Nisa Khoerunisa[2]

[1]Department of Public Health, Siliwangi University; *email: nissa.noor@unsil.ac.id
[2]Department of Political Science, Siliwangi University

ABSTRAK

Kecamatan Tamansari memiliki timbulan sampah terbesar ke-4 di Kota Tasikmalaya pada tahun 2021 yaitu 34,93 ton per hari. Tujuan dari penelitian ini adalah menganalisis faktor determinan dari keterlibatan masyarakat menjadi nasabah Bank Sampah Lestari. Penelitian ini termasuk dalam penelitian observasional analitik dengan desain cross sectional. Populasi dalam penelitian ini adalah seluruh rumah tangga yang tinggal di RW 13 Desa Tamanjaya yang berjumlah 102 orang. Pengambilan sampel menggunakan teknik *total sampling*. Oleh karena itu, jumlah sampel yang terlibat dalam penelitian ini adalah 102 orang. Pengumpulan data dilakukan melalui proses wawancara dengan instrumen kuesioner. Analisis data terdiri dari analisis univariat, analisis bivariat dengan menggunakan uji Chi-Square dan Fisher's Exact dan analisis multivariat dengan menggunakan uji regresi logistik berganda. Hasil penelitian menunjukkan bahwa tingkat pendidikan (p = 0,049; OR = 2,889), pengetahuan (p = 0,0001; OR = 6,333), sikap (p = 0,0001), sosialisasi (p = 0,012; OR = 4,146), dukungan eksternal (p = 0,0001; OR = 14,074) terbukti menjadi faktor penentu keterlibatan masyarakat menjadi nasabah bank sampah. Faktor determinan yang paling berhubungan dengan keterlibatan masyarakat menjadi nasabah Bank Sampah adalah dukungan eksternal (OR = 8,636).

***Kata kunci*:** Faktor Determinan, Keterlibatan Masyarakat, Nasabah, Bank Sampah

ABSTRACT

Tamansari District has the 4th largest waste generation in Tasikmalaya City in 2021, namely 34.93 tons per day. The purpose of this study was to analyze the determinant factor of community involvement in becoming a customer of the Lestari Waste Bank. This research was included in the analytic observational study using a cross sectional design. The population in this study was all households living in RW 13, Tamanjaya Village, totaling 102 people. Sampling using total sampling technique. Therefore, the sample size involved in the study was 102 people. Data collection was carried out through an interview process with a questionnaire instrument. The data analysis consisted of univariate analysis, bivariate analysis using chi-square and fisher's exact tests and multivariate analysis using multiple logistic regression tests. The results showed that education level (p = 0.049; OR = 2.889), knowledge (p = 0.0001; OR = 6.333), attitude (p = 0.0001), socialization (p = 0.012; OR = 4.146), external support (p = 0.0001; OR = 14.074) were proven to be determinant factors for community involvement in becoming customers of the waste bank. The determinant factor most related to community involvement in becoming a customer of the Waste Bank was external support (OR = 8.636).

***Keywords*:** Determinant Factors, Community Involvement, Customer, Waste Bank

***Citation**:* Annashr, N. N., Muharry, A., Yogaswara, D., dan Khoerunisa, N. (2024). The Determinant Factors of Community Involvement in Becoming a Customer of the Waste Bank in Tamanjaya Village, Tamansari District, Indonesia. Jurnal Ilmu Lingkungan, 22(3), 743-755, doi:10.14710/jil.22.3.743-755

1. INTRODUCTION

Waste is still a complicated problem in Indonesia due to the lack of public understanding of the impacts that can be caused by waste and the lack of government funds to strive for proper and qualified waste disposal (Martiyani et al., 2023). Population growth in the world as well as population production and consumption activities have an impact on increasing municipal waste production, so that its collection causes serious social and environmental problems (Carmen-Niño et al., 2023).

Environmental risks due to mass consumption and disposal of waste continue to be largely unconsidered by society (Espinosa-Aquino et al., 2023). The increasing standard of living of people who are not accompanied by a harmony of knowledge about waste also has an impact on the complexity of problems regarding waste in Indonesia (Martiyani et al., 2023). The results of the study conducted by

(Kusumaningrum et al., 2020) showed that urban waste management in Indonesia was proven to be less than optimal compared to municipal waste management in South Korea. The waste management system in Indonesia still faces many challenges, while the waste management system in South Korea still faces many systematic and effective challenges. This can happen because waste management in Indonesia still uses an open disposal system so that the management is not optimal, an increase in population results in an increase in waste generation, and the high negative impact on various sectors due to ineffective management. Meanwhile, waste management in South Korea has implemented sanitary landfills. Another difference is that Indonesia has not implemented sustainable waste segregation, but South Korea has implemented sustainable, structural and effective waste segregation.

Improper disposal can lead to adverse health outcomes, for example through water, soil and air contamination. Poor waste collection leads to environmental and marine pollution and can block water drains. Resulting flooding and other standing waters in waste items favour cholera and vector-borne diseases such as malaria and dengue (WHO, 2023).

Data from the Ministry of Environment in 2022 showed that waste generation in Indonesia reached 18,893,843.32 tons/year. Meanwhile, the waste reduction process has only reached 26.48%. Efforts to handle waste have only reached 51.1%. There was still 22.42% or 4,236,824.28 (tons/year) of unmanaged waste. In 2022, West Java Province had the 4th largest waste generation in Indonesia, 1,122,888.58 tons per year (Kementerian Lingkungan Hidup dan Kehutanan, 2023). Based on its composition, the types of waste in Indonesia consisted of 41.1% food waste, 18.2% plastic, 13% wood/branches/leaves, 11.2%, paper/cardboard and others (Kementerian Lingkungan Hidup dan Kehutanan, 2023). Plastic waste as a type of waste with the second largest percentage produced in our country still causes problems because it cannot be managed properly. Research conducted by (Darus et al., 2020) in October 2019–January 2020 showed that the urban population on Java Island produced around 189,349 tons of plastic waste per month, but only 11.83% was collected. The remaining 88.17% was either directly transported to the TPA (waste processing site) or disposed of into the environment.

Every plastic material has the potential to be recycled, but for many countries, recycling is still a problem. Not all countries have the financial capability to invest in cutting-edge recycling technologies (Park et al., 2021). Plastic must be recyclable to reduce the volume of waste distributed to landfills and prevent plastic waste from accumulating in the ocean (Wang, 2021).

Poor management of plastic waste, for example through the combustion process, can produce gases which will be released into the environment. This has an impact on increasing air pollution and causing the greenhouse effect which can increase global warming/climate change. Substances released into the atmosphere are furans, mercury, dioxins, and polychlorinated biphenyls (Evode et al., 2021). Based on data released by the Intergovernmental Panel on Climate Change (IPCC), it is predicted that climate change will reach a more severe level if left untreated. The emergence of the threat of climate change cannot be separated from the problem of increasing the amount of plastic waste produced. Single-use plastic is one of the main factors causing climate change, because plastic constantly produces emissions from the production process to waste (Indraswara et al., 2021).

The government has made efforts to empower the community to be able to sort and recycle waste through the Waste Bank program. Through the waste bank program, the government encourages community participation to get involved in waste control. The waste bank program that has been implemented by the Indonesian government has been stated in Government Regulation Number 81 of 2012 concerning Waste Management (Alam et al., 2020).

Data released by the Tasikmalaya City Environmental Service showed that in 2022 the total waste generation in Tasikmalaya City is 319.11 tons/day, with waste handling achievements of 73,301.03 tons/year. While the achievement of waste reduction was 19,110.89 tons/year with waste reduction through waste banks and the informal sector of 16.66%. Meanwhile, the target that must be achieved refers to the waste management policy and strategy document until 2025, namely 70% handling and 30% reduction, so that waste handling and reduction is still a problem in the City of Tasikmalaya. Tamansari District as one of the sub-districts in Tasikmalaya City had the 4th highest total waste generation in Tasikmalaya City, namely 34.93 tons per day. The Tasikmalaya City Environmental Service noted that there were 22 active waste banks in 2022 (Dinas Lingkungan Hidup Kota Tasikmalaya, 2022). However, the Lestari Waste Bank located in Tamanjaya Village, Tamansari District, was not an active waste bank based on this data.

According to Lawrence Green stated that health behavior is influenced by 3 main factors, namely predisposing factors, enabling factors and reinforcing factors. Predisposing factors, manifested in knowledge, attitudes, beliefs, beliefs, values, and so on (Soekidjo Notoatmodjo, 2014). The results of previous research showed that people's behavior to participate in utilizing waste banks can be influenced by predisposing factors, namely education level, employment (Fajriah & Nurhamlin, 2021), (Lestari et al., 2018), income, length of stay (Fajriah & Nurhamlin, 2021), knowledge (Lestari et al., 2018)(A. B. P. Saputra et al., 2023),(Fiermanzah et al., 2021), attitude (Lestari et al., 2018), (Yuliana & Wijayanti, 2019a), age, attention, intrinsic motivation, distance (A. B. P. Saputra et al., 2023), lack of public awareness

of waste (T. Saputra et al., 2022), the belief factor to participate in creating change (Prastiyantoro, 2017b), economic motives, social motives to create community, psychological motives for achieving residential achievements and self-satisfaction with the cleanliness of the environment (Tanuwijaya, 2016), willingness to sort out waste (Fiermanzah et al., 2021).

Enabling factors, embodied in the physical environment, are the availability of health facilities, for example hospitals, medical clinics, health centers, medicines, contraceptives, sanitation facilities and others. Research conducted by (T. Saputra et al., 2022) at the Pekanbaru City Waste Bank found low community participation because of socialization provided by the government and the waste bank itself. The results of the study conducted by (Pamilutsih et al., 2020) showed that the procurement of facilities and infrastructure and the acquisition of incentives were significantly related to the level of community participation in the Nurul Hikmah Waste Bank. The results of research conducted by (Yuliana & Wijayanti, 2019a) in West Ungaran District demonstrated that waste sorting facilities and the benefits of waste banks were related to community participation (Yuliana & Wijayanti, 2019a).

Reinforcing factors are manifested in the attitudes and behavior of health workers or officers, figures who become references in shaping people's behavior (Soekidjo Notoatmodjo, 2014). The results of research conducted by (Pamilutsih et al., 2020) in Tuwel Village, Tegal Regency, showed that government support was related to the level of community participation in the waste bank program. The results of research conducted by (Fiermanzah et al., 2021) in the Kapasa Raya Village, Makassar City demonstrated that there was a relationship between family support and community behavior towards the use of waste banks. The purpose of this research was to analyze the determinants of community involvement in becoming a customer of the waste bank in Tamanjaya Village, Tamansari District, Indonesia.

2. METHOD

This research was included in the analytic observational study using a cross sectional design. This research was conducted in RW 13 Tamanjaya Village, Tamansari District which has a Lestari Waste Bank. The research was carried out from June to July 2022. The population in this study was all households living in RW 13, Tamanjaya Village, Tamansari District, totaling 102 people. Sampling using total sampling technique. Therefore, the sample size involved in the study was 102 people. There were 13 independent variables studied, namely, age, education level, occupation, income level, knowledge, attitude, family support, socialization, willingness to sort out, distance, length of stay, internal motivation and external support. Meanwhile, the dependent variable in this study was community involvement in becoming a customer of the Lestari Waste Bank.

The age variable was grouped into 2 categories, namely ≤ 41.37 years and > 41.37 years. The age categorization was based on the mean value of age because the results of the normality test showed that the data was normally distributed. The level of education was divided into 2 categories, namely low education, if the respondent who are either illiterate or graduated from elementary school and junior high school, while the higher education category if the respondent graduated from senior high school and university (PP No. 47 of 2008 concerning Compulsory Education).

The employment status variable was classified into unemployed and employed. Income level variable was divided into 2 categories, namely low income level, if income < regional minimum wage for Tasikmalaya City (UMK) = IDR 2,533,341.02, while high income level, if income ≥ regional minimum wage for Tasikmalaya City = IDR 2,533,341.02. Knowledge level variable was grouped into 3 categories based on (Arikunto, 2013), namely less knowledge, if the answer score was ≤55%, enough knowledge, if the answer score was 56% -75% and good knowledge, if the answer score was 76% -100%.

The attitude variable was divided into 2 categories based on a median value of 9 because the data was not normally distributed. The attitude variable was categorized as 'negative', if the score was < 9, and 'positive' if the score was ≥ 9. The family support variable was divided into 2 categories, namely ‘no’ if not getting family support and ‘yes’ if getting family support. Socialization regarding waste bank was classified as ‘yes’ if the respondent has received socialization, and ‘no’ if the respondent has never received socialization. Variable willingness to sort was divided into 2 categories, namely not willing and willing to sort waste. The distance variable is divided into 2 categories based on a median value of 100 meters because the results of the data normality test showed that the data regarding the distance to houses was not normally distributed. The variable distance from the respondent's house to the waste bank was classified as > 100 meters and ≤ 100 meters. The length of stay variable was grouped into 2 categories based on the median value of 31 years. The length of stay was grouped into < 31 years and ≥ 31 years. The internal motivation variable was divided into 2 groups, namely low internal motivation, if the score was <4 and internal motivation was high, if the score was ≥ 4. The grouping was based on the median value because the data regarding internal motivation was not normally distributed. The external support variable was divided into 2 categories, namely there was “no” if there was no external support and ‘yes’ if there was external support.

Data collection was carried out through an interview process with a questionnaire instrument. The data analysis consisted of univariate analysis,

bivariate analysis using chi-square and fisher's exact tests and multivariate analysis. To carried out a bivariate analysis between the variables of age, education level, occupation, attitude, knowledge, socialization, distance from home to the waste bank, length of stay, internal motivation, external support and participation in the utilization of sustainable waste banks using the chi square test. Meanwhile, to analyzed the bivariate between income levels and willingness to sort with community involvement in becoming a customer of the Lestari Waste Bank using fisher exact test. After conducting bivariate analysis, the next step is performing multivariate analysis using multiple logistic regression tests.

3. RESULTS AND DISCUSSION

3.1. The Results of Univariate Analysis

The results of univariate analysis regarding the independent variables in this study were shown in the following Table 1. Based on table 1, it was known that there were more respondents aged ≤ 41.37 years (53.9%) than respondents aged > 41.37 years (46.1%), most of the respondents were unemployed (79.4%), most of the respondents graduated from elementary school (58.8%), the majority of respondents had level income with low category (96.1%), most of the respondents had a good knowledge about waste banks (65.7%), most of the respondents had positive attitude regarding waste banks (66.7%), all respondents received family support to become involved as customers of the waste bank (100%), the majority of respondents had received socialization regarding waste banks (79.4%), the majority of respondents were willing to sort waste (99.0%), most of the respondents have houses with a distance to the Sustainable Garbage Bank ≤ 100 meters (71.6%), more respondents who have lived in RW 13 Tamanjaya Village for ≥ 31 years (51%), more respondents who have high internal motivation (52%), and more respondents who have external support (54.9%). The results of univariate analysis regarding the Community Involvement in Becoming a Customer of the Waste Bank in Tamanjaya Village variable are shown in Table 2.

Based on Table 2 it was known that only 44 people or 43.1% of respondents have been involved as customers in the Sustainable Garbage Bank program.

3.2. The Results of Bivariate Analysis

The results of the bivariate analysis regarding the independent variables and the dependent variable are shown in Table 3.

In this study, no bivariate analysis was carried out between the variables of family support and community involvement in becoming customers of the waste bank because all respondents received support from their families so that the data was homogeneous. Table 3 showed that there were 5 independent variables which were proven to be determinants of community involvement in becoming customers of the waste bank. The five variables were education level, level of knowledge, attitudes, socialization regarding waste banks and external support.

The results of this study indicated that age was not significantly related to community involvement in becoming a Lestari waste bank. The result of this study was different from the results of study conducted by (A. B. P. Saputra et al., 2023) which resulted in findings that the age factor had a significant positive effect on interest in community participation in the PAS 27 Waste Bank in Kepanjen District. In his study, it was found that productive age was 5 times more likely to had an interest in participating in the waste bank. At that age, people will tend to had a higher probability of sorting household waste. In this study, respondents were not divided into productive and non-productive age groups, but based on the mean age of 41.37 years. Both in the group of respondents aged < 41.37 years and aged ≥ 41.37 years, in both groups there were more respondents who did not participate as customers of the Lestari Waste Bank. Therefore, in this study there was no significant relationship between age and community involvement in becoming customers of the Lestari Waste Bank.

The results of this study indicated that the level of education had a significant relationship with community involvement in becoming customers of the Lestari Waste Bank. The OR value of 2.889 indicated that people who had a low level of education tend to be 2.889 times more likely not to become involved as customers of a waste bank than people who had a high level of education. These findings are supported by the results of research conducted by (Fajriah & Nurhamlin, 2021) in the Tampan District, Riau, which showed that only 22.58% of the community had a category level of participation in the waste bank program in the Tampan District. One of the factors that influence the level of community participation is education (r = 0.278). The results of research conducted by (Lestari et al., 2018) showed that the level of education was significantly related to household participation in waste management at the Batu City Waste Bank. The results of research conducted by (Ratiabriani & Purbadharmaja, 2016) in Denpasar City showed that the level of education had a positive and significant effect on opportunities for community participation in the waste bank program. The results of observations conducted in Denpasar City stated that the people in Denpasar City who participated in the waste bank program had an average level of education that was quite good with the last level of education being completed, namely high school of 37.8%. As in this study it was known that in the group of respondents who participated as customers of the waste bank, most of them had higher education (64.7%), while in the group of respondents who did not participate, most of them had low education (62.1%). Factors that can influence a person's willingness to implement waste management policies include education, the

frequency of a person's involvement in social activities, and income level (Rachman et al., 2021).

According to (S Notoatmodjo, 2012), education is an activity or learning process to develop or improve certain abilities so that educational targets can stand alone. According to Wied Hary (1996) in (S Notoatmodjo, 2012), stated that the level of education also determines whether or not it is easy for someone to absorb and understand the knowledge they have acquired, in general the higher a person's education, the better their knowledge. Individuals who have a lot of knowledge tend to act and behave in accordance with their knowledge, as is the case with health behavior, especially in responding to disease. The essence of educational activities is the teaching and learning process. The result of the teaching and learning process is a set of behavioral changes. Thus, education has a huge influence on a person's behavior. Someone with high education will behave differently from someone with low education (Irwan, 2018).

Table 1. Frequency Distribution of Independent Variables

Variabel		f	%
Age	≤ 41,37 years old	55	53.9
	> 41,37 years old	47	46.1
Total		102	100
Level of education	Illiterate	9	8.8
	Graduated from elementary school	60	58.8
	Graduated from junior high school	16	15.7
	Graduated from senior high school	15	14.7
	Graduated from university	2	2.0
Total		102	100
Employment status	Unemployed	81	79.4
	Employed	21	20.6
Total		102	100
Income level	Low	98	96.1
	High	4	3.9
Total		102	100
Knowledge level	Less knowledge	28	27.5
	Enough knowledge	7	6.9
	Good knowledge	67	65.7
Total		102	100
Attitude	Negative	34	33.3
	Positive	68	66.7
Total		102	100
Family support	No	102	100
	Yes	0	0
Total		102	100
Socialization regarding waste bank	No	21	20.6
	Yes	81	79.4
Total		102	100
Willingness to sort waste	Not willing to sort waste	1	1.0
	Willing to sort waste	101	99.0
Total		102	100
Distance from the house to the Lestari Waste Bank	> 100 meters	29	28.4
	≤ 100 meters	73	71.6
Total		102	100
The length of stay	< 31 years	50	49.0
	≥ 31 years	52	51.0
Total		102	100
Internal motivation	Low	49	48.0
	High	53	52.0
Total		102	100
External support	No	46	45.1
	Yes	56	54.9
Total		102	100

Table 2. Frequency Distribution of Community Involvement in Becoming a Customer of the Waste Bank in Tamanjaya Village

Variabel		f	%
Community Involvement in Becoming a Customer of the Waste Bank	No	58	56.9
	Yes	44	43.1
Total		102	100

Table 3. Bivariate Analysis between Independent Variables and Dependent Variables

Variable	Community Involvement in Becoming a Customer of the Waste Bank				Total		Nilai p	OR (95% CI)
	Not a customer		Become a customer					
	F	%	F	%	F	%		
Age								
< 41.37 years old	30	54.5	25	45.5	55	100	0,609	-
≥ 41.37 years old	28	59.6	19	40.4	47	100		
Level of education								
Low	52	61,2	33	38,8	85	100	0,049	2,889 (0,975-8,559)
High	6	35,3	11	64,7	17	100		
Employment status								
Unemployed	48	59,3	33	40,7	81	100	0,337	-
Employed	10	47,6	11	52,4	21	100		
Income level								
Low	56	57,1	42	42,9	98	100	1,000	-
High	2	50,0	2	50,0	4	100		
Knowledge level								
Less and enough knowledge	29	82,9	6	17,1	35	100	0,0001	6,333 (2.323-17,270)
Good knowledge	29	43,3	38	56,7	67	100		
Attitude								
Negative	34	100	0	0	34	100	0,0001	-
Positive	24	35,3	44	64,7	68	100		
Socialization regarding waste bank								
No	17	81,0	4	19,0	21	100	0,012	4,146 (1,283-13,400)
Yes	41	50,6	40	49,4	81	100		
Willingness to sort waste								
Not willing to sort waste	1	100	0	0	1	100	1.000	-
Willing to sort waste	57	56.4	44	43.6	101	100		
Distance from the house to the Lestari Waste Bank								
>100 meters	20	69.0	9	31.0	29	100	0.120	-
≤ 100 meters	38	52.1	35	47.9	73	100		
The length of stay								
< 31 years	32	64.0	18	36.0	50	100	0.154	-
≥ 31 years	26	50.0	26	50.0	52	100		
Internal motivation								
Low	30	61.2	19	38.8	49	100	0.392	-
High	28	52.8	25	47.2	53	100		
External Support								
No	40	87.0	6	13.0	46	100	0.0001	14.074 (5.049-39.229)
Yes	18	32.1	38	67.9	56	100		

In general, the level of education will affect a person's behavior. The higher a person's education level, the better the resulting behavior (Jacob & Dwipayanti, 2022). The higher the education level of a person, the higher the opportunity for someone to participate. This is because someone with a higher education has broader insight and can understand various implementations of government programs (Ratiabriani & Purbadharmaja, 2016). The level of community education correlates with the ability to absorb some information in the environmental field (Lestari et al., 2018). The level of education can affect a person's perspective on the new information he receives (Muzdalia et al., 2022). A high level of education can affect the knowledge possessed by the community better because in general it will be easier for them to absorb information and be able to answer environmental problems and be able to play an active role in environmental management (Lestari et al., 2018). Nonetheless, in research conducted by (Jacob & Dwipayanti, 2022).and also research by (Arifa et al., 2019) no relationship was found between education level and waste management behavior. This can happen because maybe knowledge related to waste management was not given through formal education but through informal education such as outreach or counseling or training on waste management. The results of the study involving 50 respondents in Tuwel Village, Bojong District, Tegal Regency showed that members of the Nurul Hikmah Garbage Bank did not participate in carrying out waste management activities except at the planning and evaluation stages. The level of non-formal education has been shown to be related to the level of community participation (Pamilutsih et al., 2020).

The result of this research showed that there was no significant relationship between employment status and community involvement in becoming a customer of the Lestari Waste Bank. Previous studies have shown different results, such as research conducted by (Ratiabriani & Purbadharmaja, 2016). In this study, it was found that employment status had a positive and significant effect on opportunities for community participation in the waste bank program. The results of observations conducted in Denpasar City showed that people in Denpasar City with employed status were more likely to participate in the waste bank program (78.6%). An employed person

certainly has the awareness to participate because someone who works socializes more with the environment than an unemployed person. The results of the study conducted by (Yuniantari et al., 2022) also demonstrated that there was a significant relationship between the employment status of the head of the family and the level of participation in implementing the waste bank program in Sebatu Village, Tegallalang District, Gianyar. The contingency coefficient (CC) value of 0.384 indicated a low level of relationship between employment status and the level of participation in the waste bank program. This was due to several factors that affect the employment status of the head of the family in participating in the waste bank program, namely leisure time, income level and work performed. Although they both showed a relationship between employment status and participation in the waste bank program, this study showed a different trend, namely an unemployment person and have irregular income tend to have free time and participate more in the waste bank program. Most of the people in Sebatu Village had a steady income as farmers and entrepreneurs so that more free time for participating in the waste bank program. However, in this study, community participation in becoming customers of the Lestari Waste Bank was not influenced by their employment status, this means that both those who work and those who do not work take the time to be involved in the Lestari Waste Bank program.

The results of this study indicated that there was no significant relationship between income and community involvement in becoming a customer of the Lestari Waste Bank. The results of research conducted by (Jacob & Dwipayanti, 2022) supported the findings in this study. The study found no significant relationship between income level and waste management behavior. Income is the amount of rupiah earned by the respondent each month, both from the basic salary and side income. According to (Putra et al., 2013) the amount of one's income can have a major effect on waste management. Communities with high incomes have better ability to provide good facilities for managing waste. For example providing covered and easy-to-clean trash cans, paying for garbage collection services, or paying someone else to handle the waste they produce. A research conducted by (Fitri Arifa et al., 2019) showed that income level had no effect on opportunities for community participation in the waste bank program in Nijang Village. Communities with high or low income levels do not guarantee their participation in the waste bank program because people who had high incomes were not interested in participating in the waste bank program considering their already large income. Whereas in people who had low incomes, they tend to spend more time participating in things that were more profitable, considering that the income from saving waste was only a small amount and received in a relatively long time. In this study there was no significant relationship between income level and community involvement in becoming customers of the waste bank. These findings support the results in this study which found no significant relationship between income level and community involvement in becoming a customer of the Lestari Waste Bank.

The results of this study demonstrated that knowledge was significantly related to the community involvement in becoming a customer of the Lestari Waste Bank. The result of this study was supported by previous research conducted by (Meidiana et al., 2021), (Prastiyantoro, 2017a), (A. B. P. Saputra et al., 2023), (Fiermanzah et al., 2021), (Yuliana & Wijayanti, 2019b), and (Yuniantari et al., 2022). The results of the study (Jacob & Dwipayanti, 2022) in 5 sub-districts in South Denpasar District showed that the results of multivariate analysis showed that there was a significant relationship between knowledge (AOR=2.52; 95% CI=1.08-5.85) and the behavior of waste management in the community. The results of a literature review conducted by (Sunarti et al., 2021) on 54 research articles discussing intrinsic factors that can influenced the behavior of people's waste management in developing countries, there were at least 13 identified intrinsic factors. Knowledge was the most frequently mentioned factor that can influence the behavior of waste management being studied, including the behavior of waste reduction and waste segregation behavior. Several studies have shown the importance of the community having sufficient knowledge before they participate in the waste management process. Community knowledge about the environment contributes to determining how much the community intends to carry out waste management, one of which is sorting waste. Communities can obtain good knowledge about waste banks from various types of information sources, for example socialization by the Bantul Environment Agency, as well as knowledge gain from print, radio and television media which have a major influence in forming opinions and beliefs about waste banks.

Every human being has a different level of knowledge. The levels of knowledge start from knowing, understanding, application, analysis, synthesis and evaluation. The higher a person's level of knowledge, the higher the individual's ability to assess a material or object. This assessment will be the basis for someone to act (S Notoatmodjo, 2012)..

According to Lawrence Green, health behavior can be influenced by 3 main factors, namely predisposing, enabling, and reinforcing factors (Soekidjo Notoatmodjo, 2014). Predisposing factors are factors that facilitate and underlie the occurrence of certain behaviors, including knowledge, attitudes, values and culture, beliefs, beliefs, perceptions (Muzdalia et al., 2022), (Soekidjo Notoatmodjo, 2014). Predisposing factors are also influenced by individual characteristics such as age, gender, education level, occupation (Muzdalia et al., 2022). Therefore, people's behavior to participate in utilizing waste banks can be

influenced by predisposing factors, one of which is knowledge (Sunarti et al., 2021). Action is the realization of the knowledge and attitude of a real action. Action is also a person's response to a stimulus in a real or open form (Irwan, 2018). Health behavior is a person's response to a stimulus related to illness and disease, the health care system, food and the environment. Behavior has boundaries consisting of 2 main elements, namely response and stimulus. The response has 2 characteristics, namely passive (knowledge, perception and attitude) and active (real action or practice). The stimulus consists of 4 main elements, namely illness and disease, the health care system, food and the environment (Muzdalia et al., 2022). Therefore, a person can act to do something influenced by a response, one of which is knowledge. Knowledge about health is everything that a person knows about ways to maintain health (Irwan, 2018). Knowledge of the waste bank will shape a person's positive attitude towards the waste bank itself so that it can influence the actions or behaviors that are implemented. Based on the results of a literature review conducted by (Sunarti et al., 2021), it was known that the research conducted in Iran found that knowledge had a correlation with attitude. In addition, attitude was a vital factor that directly influences the behavior of household waste management in Iran.

Based on the result of this study, it was known that there was a significant relationship between attitudes and community involvement in becoming customers of the Lestari Waste Bank. The research conducted by (Jacob & Dwipayanti, 2022) supported this study. In his research, it was found that there was a significant relationship between attitude ($p = 0.028$) and perceptions of behavioral control ($p = 0.016$) with waste management behavior in South Denpasar District. The results of a literature review conducted by (Sunarti et al., 2021) showed that attitude was an intrinsic factor that affected waste management, including waste reduction practice, waste segregation practice, waste recycling practice and waste management practice in general. Most studies have found that attitudes and knowledge were important factors in waste reduction and waste segregation practice in various countries.

Attitude had a correlation with knowledge as has been proven in research conducted in Kermanshah City Iran. In addition, it was also a vital factor that directly influenced the behavior of household waste management in Iran, China, Ghana, Trinidad & Tobago and academic students in Jordan. Negative attitude towards waste management was an obstacle to waste management in Thailand. This suggests that attitudes are built on environmental awareness, environmental efficacy, and personal moral norms. Attitude is a person's closed response to a certain stimulus or object that involves the opinion and emotion factors concerned (happy-unhappy, agree-disagree, good-not good, and so on). Attitude is also a syndrome or a collection of symptoms or objects so that attitudes involve thoughts, feelings, attention and other psychological symptoms. Attitudes towards health are people's opinions or judgments on matters relating to health maintenance. Attitude is a tendency to act. However, attitude is not necessarily manifested in action because other factors are needed to realize action, namely the existence of health facilities or infrastructure (Irwan, 2018). According to (Soekidjo Notoatmodjo, 2014), attitude is a tendency to accept or reject an activity, based on one's experience, knowledge, and norms. So, attitude is not the executor of certain motives. From a positive attitude towards information about the waste bank, it will give birth to a tendency to accept invitations to participate in the waste bank program.

The results of this study found a relationship between socialization variables regarding the waste bank and community involvement in becoming customers of the Lestari Waste Bank. Research conducted by (T. Saputra et al., 2022) at the Pekanbaru City Waste Bank found low community participation due to the lack of socialization provided by the government and the waste bank itself. The results of the study conducted by (A. B. P. Saputra et al., 2023) showed that 3R information and 3R counseling had a significant positive effect on interest in community participation in the PAS 27 Waste Bank. Even though people already know the benefits of 3R (reduce, reuse, recycle), this does not automatically inspire people to implement it. Every household has an important contribution to participate in 3R. Appropriate support in terms of training, adequate socialization, availability of environmental cadres and the existence of waste banks influence household participation (Susilowati & Herdiansyah, 2019).

According to Lawrence Green's theory, socialization is included in the enabling factors that can affect human health behavior. Socialization is a form of health education. The importance of health education can be an approach in solving health problems. Broadly speaking, solving health problems can be categorized into 2 things, namely a physical approach and a non-physical approach. These two things must occur simultaneously, the availability of health facilities and infrastructure must be followed by a non-physical approach, namely health education because these two things have an equally important contribution. It would be very useless if the increase in physical facilities was not followed by an increase in community knowledge. Health education as part of health promotion is a very important factor because it incorporates patterned learning experiences to make it easier for individuals to adjust their behavior voluntarily for better health status (Bahar et al., 2021). A change in the community's paradigm regarding waste from wasted goods to goods that have economic value is needed and managed in a sustainable manner, where waste is not just thrown away. Therefore, education is needed to increase the awareness and skills of residents in waste management by implementing the 4R reduce, reuse,

recycle and replant. Waste management from the source is important in solving the waste problem. Empowering women in the form of training in waste management starting from collection, transportation to destruction, to turn waste into economic value using emancipatory participation methods (interaction and communication) and dialogue using learning methods to deal with problems is an important choice. Knowledge of household waste processing is expected to provide benefits to residents in general, especially direct benefits by reducing waste generation while at the same time being able to meet the socio-economic needs of the community, realizing environmental health, with community conditions that are cleaner, greener, more comfortable and healthier (Zulkarnain et al., 2022).

The results showed that there was no significant relationship between the willingness to sort and community participation in the use of the Sustainable Garbage Bank. Research conducted by (Fiermanzah et al., 2021)showed different results where it was found that there was a significant effect of the willingness to sort waste on the use of waste banks p=(0.002), in Kapasa Raya Village, Makassar City. The willingness to sort waste in this research means that waste sorting activities are activities carried out by people who are very knowledgeable about waste management and the benefits obtained economically or in healthy environmental aspects. In addition, it must also be supported by good facilities and infrastructure as well as free time to sort waste. However, some of these people sort waste not because they are aware of improving environmental quality, but because there are instructions from the urban village. In this study, there was no relationship between willingness to sort waste and participation in the utilization of the Sustainable Waste Bank. This is possible because almost all respondents (99%) stated that they were willing to sort waste.

The results of this study indicated that there was no relationship between distance from home and community involvement in becoming customers of the Lestari Waste Bank. Previous research showed different results as carried out by (A. B. P. Saputra et al., 2023) in Kepanjen District, (Rahmanda & Widjonarko, 2021) in RW 05 Gedawang Village, (Purba, 2020) in Sumber Melati Diski Village, (Dea Anindya Sari, 2017) in Karanglo Village and Keprabon Village, Klaten during PT. Tirta Investama Aqua, and (Febrianti et al., 2022) in Tuah Madani District, Kota Baru. A research conducted by (Indrawati, 2019) in in Purworejo Regency showed that the distance between the waste banks and residents' homes was quite far, with the condition that there were no shelter posts in every RT or RW (a small part of a village), this was an inhibiting factor for community participation in carrying out waste activities. A person's behavior for a healthy life is one of them influenced by enabling factors or enabling factors. Included in the enabling group are the availability of health services, accessibility and ease of health services both in terms of distance and costs and socially (Muzdalia et al., 2022). The availability of good access will encourage community behavior in managing waste. Access can be determined from the number of waste processing sites (availability) and distance traveled. This research was a finding in Malaysia (Sheau-ting et al., 2016). So having a close distance to the waste bank will make it more likely for someone to participate in the use of the waste bank so that person does not require a large effort to access the waste bank. However, in this study there was no significant relationship between the distance from the house to the Lestari Waste Bank and community involvement in becoming customers of the Lestari Waste Bank. This was because based on the results, both in the group that had a house distance of >100 meters and ≥100 meters, there were equally more who do not participate as customers of the Lestari Waste Bank.

The results of this study found no relationship between length of stay and community involvement in becoming customers of the Lestari Waste Bank. Different results were shown by research conducted by (Fajriah & Nurhamlin, 2021) in the Tampan District of Riau. In his research, it was proven that the length of stay variable was one of the factors that proved to influence the level of community participation in the waste bank program. The results of research conducted by (Wijaksono, 2013)demonstrated that length of stay affects the ability to communicate, both for receiving information and conveying information in the form of suggestions including decision making. Length of stay has a strong relationship with the form of community participation in the process of involving residents in meetings, physical activities or community service. The longer a person lives and resides in an area, in general, will have a positive influence on the development of his psychological life so that it can stimulate a deep sense of belonging which in turn raises awareness to maintain, manage and develop development outcomes in the form of improving existing infrastructure and facilities. Length of stay or living in an area is associated with a sense of belonging to that area so that there is a desire to make the living environment a clean, healthy and comfortable place to live in. However, this study did not find a relationship between length of stay and participation, perhaps because length of stay alone is not enough to affect community participation, for example if there is less knowledge about the benefits of waste banks.

In the results of this study, there was no relationship between internal motivation and community involvement in becoming customers of the Lestari Waste Bank. The results of previous research conducted by (Tanuwijaya, 2016) showed that the factors that influence community participation in waste management at the PITOE Jambangan Garbage Bank include economic motives, social motives to create harmony, psychological

motives for achieving residential achievements and self-satisfaction because the environment becomes clean. The results of research conducted by (Meidiana et al., 2021), show that the behavior of recycling participation in rural communities with relatively low levels of education is driven more by personal norms, satisfaction with the services provided, and intention to act. Therefore, it is important to encourage understanding and knowledge of village communities about recycling to increase their intentions and behavior in recycling waste. Indirectly, social norms are very important for recycling participants through personal norms and intentions to act. Internal motivational variables in this study include motivation to become a customer of the Sustainable Garbage Bank consisting of getting benefits, economic benefits, improving environmental quality, increasing knowledge about how to process waste, reducing waste every day, knowing the bad effects of waste, requiring a means of gathering and socializing. In this study, the number of respondents who had low and high internal motivation was almost the same where each was 48.0% and 52.0%. In this study it was found that in the group of respondents who had low internal motivation and also high internal motivation, in the second group more did not participate as customers of the Lestari Garbage Bank. This study found no relationship between internal motivation and participation in the use of the Sustainable Waste Bank. This is possible even if someone has high internal motivation, but needs to be supported by other factors to be able to actively participate in waste bank management, such as sufficient knowledge and support from external parties.

The results of the study found that there was a significant relationship between external support and and community involvement in becoming customers of the Lestari Waste Bank. Household's attitudes and behaviour related to separation of waste depends on active support and investment of a real estate company, community residential committees' involvement for public participation, and fee for collection service (Suardi et al., 2018).

This was in line with research conducted by (Rama & Purnama, 2019) in Kesiman Kertalangu Village, Denpasar City which showed that the support of community leaders had a significant effect on community participation. The results of research conducted by (Suwerda & Handoyo, 2018) in urban waste banks in Bantul Regency demonstrated that there was a significant relationship between the role of the government and waste activists who were members of the Independent Waste Management Network (JPSM) and community participation in waste banks. Knowledge, participation, the role of the government and JPSM had a significant relationship with community intentions in the waste bank. This study helps to understand the relative strength of the relationship between the determinants of the intention to manage a sustainable waste bank. The strength of the strongest relationship was between the role of the government and JPSM and intentions, followed by the relationship between roles and participation, then between participation and intentions, and the weakest was the relationship between knowledge and intentions. The results of this study stated that community knowledge about waste banks was related to and contributes positively to community participation in urban areas. Lawrence Green's theory sayed that one of the factors that influence a person's healthy behavior is a reinforcing factor. Reinforcing factors are factors that reinforce behavior change, for example the attitude of community groups, community leaders and health workers. According to WHO, there are 4 things that cause a person to behave, namely the presence of thoughts and feelings, the existence of important people as references, the existence of resources and the existence of culture where behavior, habits and values in society will produce certain lifestyles (Kasmiati et al., 2023).

Social support is defined as verbal or non-verbal information, advice, real assistance or behavior provided by people who are familiar with the subject in their social environment or in the form of presence and things that can provide emotional benefits or influence on behavior (Irwan, 2018). The external support variable in this study was known from the presence or absence of support from outsiders to become customers of the Lestari Bank, consisting of invitations from friends/neighbors, encouragement from the management of the waste bank, and instructions from the village. The existence of encouragement from external parties is a reinforcing factor that makes it easier for someone to participate in utilizing the Lestari Waste Bank. In fact, based on multivariate analysis, the external support variable was the variable most significantly related to community involvement in becoming customers of the Lestari Waste Bank.

Table 4. Final Model of Multivariate Analysis using Multiple Logistic Regression Test

Variable	p value	Exp (B)	95% CI
Level of education	0.064	4.748	0.911-25.098
Knowledge level	0.270	0.225	0.016-3.187
Attitude	0.997	5.331E9	-
Socialization regarding waste bank	0.787	1.256	0.239-6.599
Distance from the house to the Lestari Waste Bank	0.557	1.537	0.367-6433
The length of stay	0.057	3.734	0.964-14.468
External Support	0.003	8.636	2.079-35.872
Constant	0.997	0.000	

Apart from influencing community participation, external support such as support from the government can also improve the performance of waste banks. As research conducted by (Ahmad, 2022) showed that the Rawajati Waste Bank has better performance compared to BS Malaka Sari, because BS Rawajati receives assistance from the government. Even though the two banks were both formed and managed independently by the local community and also have relatively almost the same income every month.

3.2. The Results of Multivariate Analysis

The results of the bivariate analysis regarding the independent variables and the dependent variable are shown in Table 3.

Based on Table 3, it was known that the results of the multivariate analysis showed that the variable that had the most significant relationship with community involvement in becoming a customer of the Lestari Waste Bank was external support ($p < 0.05$). The OR value of 8.636 indicated that people who did not have external support tend to be 8.636 times more likely not to be involved as customers of the Waste Bank than people who had external support.

4. CONCLUSION

This study concluded that education level, knowledge, attitude, socialization regarding waste bank, and external support were proven to be determinant factors for community involvement in becoming customers of the waste bank. The determinant factor most related to community involvement in becoming a customer of the Waste Bank was external support. Based on the results of the research, it is recommended that the Tamanjaya Village Government be able to disseminate information to the community about the benefits of the Waste Bank in order to increase the knowledge, attitudes of the community and encourage them to participate in utilizing the Lestari Waste Bank. To accommodate these activities, collaboration with the Tasikmalaya City Environmental Service or universities can be carried out. The Tamanjaya Municipal Government is advised to remind the community more often to participate in utilizing the Lestari Waste Bank, for example when holding regular community meetings, or other activities and involving community leaders such as heads of RT, RW, and even religious leaders to further urge the public to participate in Bank activities Sustainable Garbage. The community is expected to be more pro-active in seeking information about the benefits of waste banks from various sources, for example participating in socialization, from social media, as well as print and electronic media.

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