



Waste management an Islamic perspective

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Abstract

Aim: The primary goal of the study is to pinpoint the elements that determine the community of Batu Bantar Gebang's involvement in the creation of a waste bank.

Methodology: Methods of qualitative research were applied in this study. Interviews, field observations, and a review of relevant books and periodicals were all used to gather data for the study. The Ummu Amanah Foundation in Sumur Batu District, Al-Falah School, in Bantar Gebang, Bekasi, West Java, served as the study's location.

Findings: The community's religious beliefs inspire it to recycle rubbish that still has worth. Throughout the entire waste management process, the residents of the village mainly adhered to Quranic teachings. According to Islamic law, every Muslim has a responsibility to preserve the environment, use resources wisely, abstain from various diseases, and commit acts of tabdzir and israf. Additionally, it is prohibited to leave trash where it can still be picked up and used for one's own and other people's interests.

Implications/Novel Contribution: The general public and upcoming researchers can use the findings of this study as a starting point. Increasing literacy on garbage banks while considering effective teaching techniques and people's desire to preserve the environment.

Keywords: Participation community, innovation, waste bank, Islamic perspective.

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INTRODUCTION

The environment and its problems are a condition that is being faced by mankind, both in the regional, national and global scope. Development, population growth rate, technological development, lifestyle, and consumption are a series that some consider causing environmental problems (Schipper & Pelling, 2006). If viewed, it will appear that environmental problems may arise due to the development process only partially because what is called development is making changes (Pearce, Markandya, & Barbier, 2013). However, let's look at development as a whole. It turns out that development does not stand alone because, in other parts of the aspect of economic growth, increasing population, including consumption patterns and technological advances, are used as indicators of the success of a development. On this side, there are often conflicts with environmental problems. Population growth means the growth of urban areas, which has implications for the need for land availability, as well as the need for additional food production. Not to mention there is an increase in energy demand. Each of these needs has implications for the environment. Apart from the implications arising from development and industrialization, what is evident is the population growth rate which shows an increase from year to year (Coale & Hoover, 2015; Nima, Nualdaisri, Tolaema, & Suteeravut, 2019). The population growth rate will increase various needs and, in line with it, will increase the amount of waste/residue or residue, both from the consumption process and the results of the activities carried out, the form waste (Rahman, Misrawati, Purnamasari, & Anwar, 2018). One of the big problems Indonesian citizens face today is waste. Garbage can be interpreted as a consequence of the existence of human life activities. Undeniably, waste will always exist as long as life activities are still running; certainly, the volume of waste will always increase in line with the increasing pattern of community consumerism (Artha, Vipriyanti, & Sujana, 2018; Apolonio, 2020).

Related to the increase in the volume of waste is the type and variety, specifications, and characteristics of waste that increase from time to time as new materials and materials emerge, which in turn require different

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processing and handling systems from before, such as plastic waste or electronic waste, not to mention waste. Other waste, categorized as hazardous and toxic, requires special and more specific handling than domestic waste. Therefore, the problem of environmental hygiene and health (including waste) is a complex problem faced by all countries, including Indonesia (Ministry of Energy and Mineral Resources, Republic of Indonesia, 2015).

According to the Director General of Human Settlements, the waste bank is one of the strategies application of 3R (reduce, reuse and recycle) in waste management at the source community level. Implementing the waste bank in principle is one of the social engineerings to invite the community to sort garbage. By exchanging waste for money or valuables can be saved, people are finally educated to appreciate trash so that they want to sort waste (Saputro, Kismartini, & Syafrudin, 2016).



Figure 1. Waste Bank Illustration

The waste bank management model is not only helping to clean the environment but also has an economic benefit. The waste bank management model is also associated with the local community taking on and managing their waste to reduce waste and receive economic benefits. Pariatamby et al. (2014) describe the waste bank's benefits to society, which help clean the environment and provide extra cash for society. Waste bank teaches people to sort their waste, raising public awareness to process waste wisely to reduce waste going into landfill (Wulandari, Utomo, & Narmaditya, 2017). Innovation of waste management through the waste bank at the grassroots level can increase the income of poor people in the city (Purba, Meidiana, & Adrianto, 2014; Serah, Setiawati, & Septinawati, 2020).

One of the solutions for social engineering activities (Waste Bank) teaches the community to sort waste and grow public awareness of processing waste wisely. The hope is that it will be able to reduce the amount of waste transported to landfill. The construction of this Waste Bank is an initial momentum in fostering the community's collective consciousness to start sorting, recycling, and utilizing waste (Shahreza, 2021).

A Waste Bank is a place used to collect garbage sorted by the person who needs waste to help their income by adding to the economic value of the waste. The results from the collection of sorted waste will be deposited into a place for making handicrafts from waste or to scavengers where the waste will be weighed and sold, from these all children can get money and from this money pay for school needs such as: copies textbooks, uniforms and others (Salim, 2013). The waste bank was established because the public was concerned about the environment, which is increasingly filled with organic and inorganic waste. Often, waste will cause many problems, requiring processing, such as making waste into useful materials (Fatmawati, Mustari, Haerana, Niswaty, & Abdillah, 2022; Khan, Shahbaz, & Jam, 2019).

The main purpose of establishing a waste bank is to help deal with waste processing, and the following purpose of a waste bank is to make people aware of a healthy, neat, and clean environment (Kurnianingsih, Zulkarnain, & Okparizan, 2021). Garbage banks were also established to make waste more useful, such as handicrafts and fertilizers, with economic value. The gap in this research occurs between development programs and the real problems and needs that exist in the community (Nasution, 2013; Hamid, Jam, & Mehmood, 2019). From the description above, waste processing only provides ecological benefits and has an economic "impact." This economic advantage can be used as a resource for waste management because there has never been any research at the Ummu Amanah-Alfalah Sumu Batu Foundation, Bantargebang, Bekasi, West Java, Indonesia. Therefore, researchers are interested in conducting research with the title "Waste Management in Islamic Perspective".

Theoretical Framework

According to the author, waste is a material or solid object, liquid object, and gaseous object that humans no longer use, or a solid, liquid, and gas object that is no longer used in human activities and is disposed of and can be recycled.

The term waste bank consists of two words. A bank is an intermediary institution that functions as a place to save and lend money and financial transactions. Waste is all unwanted or unusable material usually discarded by its owner (Antao & Pinheiro, 2015). The management model of the waste bank is almost the same as the commercial banks, where there are customers, bookkeeping, and management; in a commercial bank, the customer deposits money but in a waste bank customers deposit waste that has an economic value, while waste bank managers need to be creative and innovative (Kholil, Budi Aman, & Jumhur, 2018).

According to the Regulation of the state minister of environment of the Republic of Indonesia Number 13 of 2012 concerning Guidelines for the Implementation of Reduce, Reuse, and Recycle through Waste Banks, the waste bank itself is regulated in article 1 paragraph 2 of this regulation. The sound of this article is: "A waste bank is a place for sorting and collecting recyclable and/or reusable waste that has economic value" (Saragi, Sinaga, & Purba, 2020).

According to annex II-point G of the Regulation of the State Minister of the Environment of the Republic of Indonesia Number 13 of 2012 concerning Guidelines for the Implementation of Reduce, Reuse, and Recycle through Waste Banks, where the types of waste that can be saved in waste banks are (Saragi et al., 2020):

1. Paper covering newspapers, magazines, cardboard, and duplexes.
2. Plastic, including clear plastic, plastic bottles, and other paper plastics.
3. Metals, including iron, aluminum, and tin.

According to the author, the household waste produced can have economic value if the community can manage the type of waste produced in daily life and can be recycled to be resold to the waste bank to get another "value." Especially in Sumur Batu Village, parents "sell" their waste and hope they can send their children to school.

RESEARCH METHODOLOGY

This study used qualitative research methods. The qualitative research method is a research method based on the philosophy of postpositivism, used to examine the condition of natural objects, where the researcher is an instrument of data collection carried out by triangulation (combined), data analysis is inductive/qualitative, and the results of qualitative research are more meaningful than generalizations (Sahin & Öztürk, 2019). In contrast, the data collection is done by interviewing, field observations, and exploring journals, books, and other information relevant to the study.

The location of this research is the Ummu Amanah Foundation in Sumur Batu District, Al-Falah School, in Bantar Gebang, Bekasi, West Java. This study's qualitative data analysis activities relied on an interactive model (Miles & Huberman, 1992), carried out through data reduction, data presentation, and conclusion drawing/verification.

RESULTS AND DISCUSSION

Humans, who are *Homo sapiens*, always live side by side with nature. The most distinguishing humans from other creatures are that humans are equipped with reason, thoughts, feelings, and beliefs to enhance the quality of their lives. Education is one of the processes to be able to change the attitudes and behavior of a person or group of people to achieve a higher level of wisdom (Boesch, 2007). Along with the increasing population in Indonesia and because humans need primary needs, one of them is the need for "food," with trash being a consequence of human activities. Most waste management in urban areas is still a serious problem (Maharani, Purba, & Faizal, 2018).

One of the factors that cause environmental damage, which is still a big "homework" for the Indonesian people, is the factor of disposing of plastic waste. Law Number 18 of 2008 concerning Waste Management and Government Regulation Number 81 of 2012 mandates a fundamental paradigm change in waste management, from the collect-transport-dispose paradigm to processing that relies on waste reduction and management. Waste reduction activities mean that all levels of society, including the government, the business world, and the others community, carry out activities to limit waste generation, recycle and reuse waste or better known as Reduce, Reuse

and Recycle, Repair (4R) through smart efforts, efficient and programmable (Fitria Maryanti, 2017).

To reduce the volume of waste and make the waste produce rupiah value, it must be managed by the community through the waste bank program.

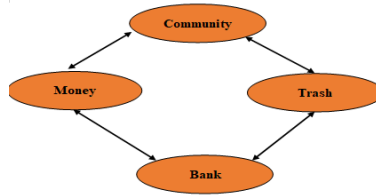


Figure 2. Waste Bank Management

The waste bank is an institution that functions to accommodate the waste provided by the community that will later be reprocessed to be used as goods that have economic value again in the community; in return, the waste given by the community to the waste bank will be purchase or appreciated based on the type of classification. The trash and the existence of a waste bank is not only an effort to reduce the existing inorganic waste pollution but also to practice healthy and clean living for the community (Putra, Mutiani, Jumriani, & Handy, 2020).

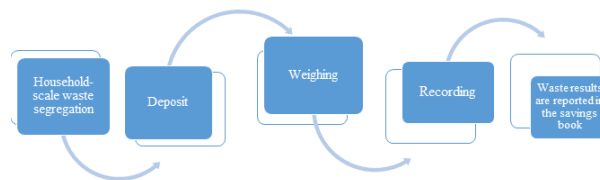


Figure 3. Waste Bank Mechanism (Source: www.banksampahjakarta.com)

The purpose of building a waste bank is not the waste bank itself. The waste bank is a strategy to build public awareness to be 'friends' with waste to get direct economic benefits from waste (Fauziah, Hamzah, & Rozy, 2021). Therefore, the waste bank cannot stand alone but must be integrated with the 4R movement so that the economy feels the direct benefits and the development of a clean, green, and healthy environment (Kristiani et al., 2022). What is the four R movement? The four R movement includes:

a. Reduce. Reducing the use of items that produce too much energy and waste. Moreover, waste is difficult to decompose. It takes a long time to decompose with the soil, like plastic waste.

Reduce Example:

1. Bring your shopping bags instead of "plastic bags" from Supermarket. On the other hand, ask for Paper bags to carry groceries.
2. Reduce "Sachetans from Plastic," such as Shampoo Sachets and Milk, in plastic packaging; it is better to use it as boxed milk. (In paper bag packaging).
3. Using refillable products such as pens and markers.
4. Reduce electricity use during the day or air conditioning when it is too late; you should open the window to let the air on.

b. Reuse. Reuse items that can still be used.

Reuse Example:

1. Reuse bottled mineral water bottles to become flowerpots and pencil cases.
 2. Reuse the textbooks used by classmates, brothers, and sisters to study.
- c. Recycle. Recycling items that can no longer be used (for example, organic waste) into new items that can be used.

For example:

1. Managing organic waste into compost.
- d. Repair. Improvements for the environment in which humans live.

For example, Reforestation or replanting of forests that have been deforested.

According to Chairil Nizar, quoted from several sources, there are several definitions of waste, namely:

1. Waste is substances/objects that do not function or are no longer used, either from houses or industrial processes.

2. Waste is a material that is wasted or disposed of from sources resulting from human activities or natural processes that do not yet have economic value.

3. Waste is all solid waste generated from all human and animal activities that are not useful or unwanted.

During July until August 2022, the author observed a special school for the children of scavengers and economically disadvantaged residents in the Bantar Gebang "TPS (Waste Disposal Site)" area of Bekasi, West Java. The first school is named "FOUNDATION UMMU AMANAH-ALFALAH SUMU BATU," located in Jalan Pagkalan 2, Bantar Gebang District, Bekasi City, West Java Province.

The School Foundation, founded in 2007, is a school to Pursue Packages A, B, and C. Sekolah Kejar Paket is an equality school, a non-formal education channel facilitated by the Government or the private sector, for students who study not through the official school channel. Pursue Package consists of 3 packages, namely Pursuit of Packages A, B, and C. Pursuit of Package A is equivalent to Elementary School (SD), Pursuit of Package B is equivalent to Junior High School (SMP), while Pursuit of Package C is equivalent to High School (SMA).

In Indonesia, for Formal School, Elementary School (SD) takes 6 years, Junior High School for 3 years, and High School for 3 years. But pursuing school package A only takes time; those still of learning age will take it for 4 semesters or 2 years, and for adults, it will only take 2 semesters or 1 year. For Schools pursuing Packages B and C itself, it is less than 3 years between 2-2.5 years, not during formal schooling.

For the cost of pursuing school packages A, it ranges between (in Rupiah):

a. Pursuit school Package A: Rp. 2,000,000 – 2,500,000,-

b. Pursuit school Package B: Rp. 2,500,000 – 3,000,000,-

c. Pursuit school Package C: Rp. 3,000,000 – 3,500,000,-

The Ummu Amanah Foundation built a special school for scavengers and underprivileged residents because the foundation's founders thought that the scavenger community was a marginal community that had been marginalized. This is exacerbated by their lack of awareness to improve their quality of life, alleviating the downturn that begins with education and coaching for their sons and daughters. This mindset that is already patterned as a people who can only scavenge trash and put aside education must be completely overhauled.

The embryo of the Al Falah Study Group has been present since 2007; where at the beginning of our movement in fostering the scavenger community, we established a Pendidikan Anak Usia Dini means early childhood education programs (PAUD), TPQ (Taman Pendidikan Al-Quran means Quran Education School) and Mothers' Development. They were members of the Mothers Taklim Council.

So far, we (Al-Falah) have contributed a lot to the surrounding community, especially the marginalized community whose livelihood is as scavengers. After running for 5 years and considering the interest of the surrounding community (scavengers and non-scavengers/natives) to join as students of the Al Falah Study Group, we decided to relocate the school to a wider and more conducive place for teaching and learning activities. As the legality of this developing institution, we strive that this educational institution will exist as a PKBM (Center for Community Learning Activities), which can accommodate and provide complete guidance to marginalized communities in the Bantar Gebang area.



Figure 4. Front Yard of One of the Students of the Al-Falah School



Figure 5. The Residence of One of the Al-Falah School Students

All students attending Al-Falah are free of charge. It's just that for photocopies of learning they have to pay around Rp. 3,000, - up to Rp. 10,000,-) per month, and they also have to pay for their uniforms in installments. In carrying out their duties, the founders of the Ummu Amanah Foundation, namely: Mr. Karyanto Wibowo and Mrs. Wulan Sari, were assisted by 3 core members of the Foundation and 15 teachers for the Sekolah Kejar Paket, Packages A, B, and C.

Below is the Organizational Structure of the Al-Falah Foundation. What amazes the writer is that even though they come from low-income family backgrounds, they can still achieve. Their achievements include the fields of Tahfidz Qur'an, Sports, and Arabic Speech.

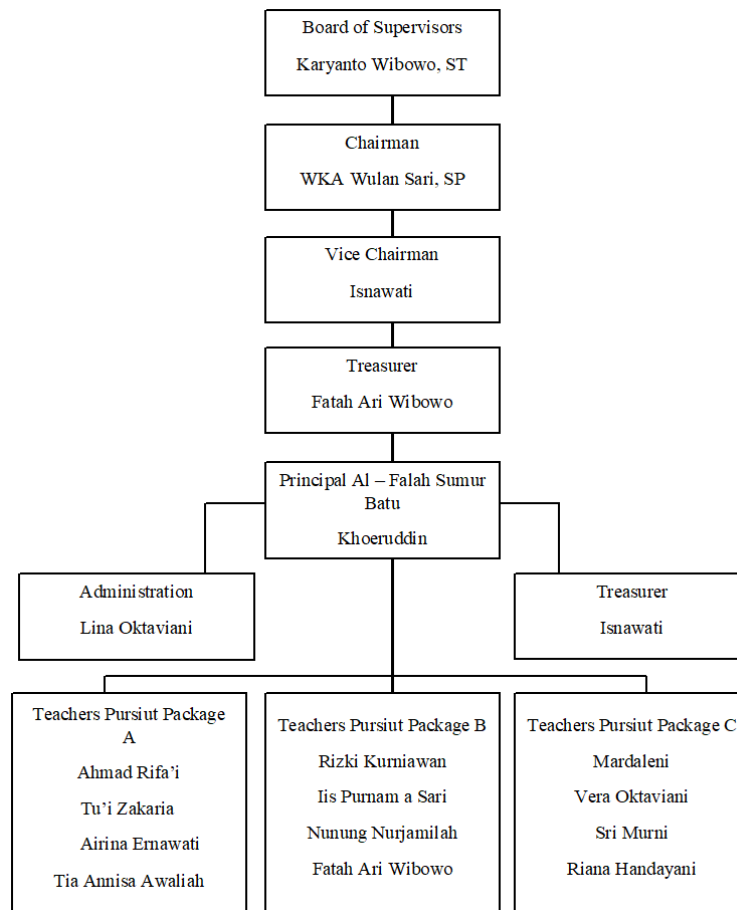


Figure 6. Structure Organization of Ummu Amanah Foundation

Currently, the number of students from the Kejar School Packages A, B, and C is 231 students, consisting of:

Table 1: Students from the Kejar School Packages

No.		Total Students	Gender	
			Male	Female
1	PAUD 55	30	25	
2	Package A Class I	30	14	16
3	Package A Class II	14	8	6
4	Package A Class III	18	8	10
5	Package A Class IV	17	10	7
6	Package A Class V	18	7	11
7	Package A Class VI	21	10	11
8	Package A Class VII	17	7	10
9	Package A Class VIII	17	6	11
10	Package A Class IX	13	6	7
11	Package A Class X	10	6	4
Total		231 students (Male: 112, Female: 119).		

The following describes the class where Al-Falah’s students gain knowledge. Al-Falah has 6 classes, of which 6 will be used by 231 interchangeably. Shift 1: starting from 07:30 – 10:00 AM, while Shift 2: starting from 10:00 – 12:00 AM.



Figure 7. Classroom of Al-Falah School

The target students of the learning program at Al-Falah School are specifically for 3 categories, namely:

1. Scavenger residents who live around Bantar Gebang, Bekasi.
2. Poor people.
3. Residents who have dropped out of school.

Types of garbage for sale by the children of scavengers are very diverse, but the easiest to get for waste is an organic and non-organic waste. Household organic waste will later be processed into compost fertilizer.

Most plastic waste is found in landfills even though the price is low, around Rp. 1.000 per kilogram, but if the plastic waste is washed and dried, the price increases to Rp. 2.100-Rp.2.200 per kilogram. This price is, on average, already the same for all garbage collectors. For iron waste, aluminum is the most expensive; per kilogram is around Rp. 4,000 - Rp. 5000., by garbage collectors, for this iron waste is sold in iron factories to become new iron and sold at a high price of around Rp. 6,500 - Rp. 7,000 per kg.

The income of Bantar Gebang scavengers is not the same every day; on average, they get around Rp. 100,000 - Rp. 200,000 per day. But when it rains, they dare not scavenge on average and rest at home, even if they go scavenging not to the top of the mountain of garbage because it is feared that the mountain will landslide

The implementation of Bantargebang Waste Bank (BSB) impacts the community and BSB customers. Through the proposed model of management that provides interaction between customers and customers with BSB in reciprocal relationship management and community empowerment. The impact felt by the community and customers is the additional income from the trash and clean environment.

BSB community economic empowerment programs have increased public income. Although it has not yet fully lifted them out of poverty, the surrounding communities still follow the BSB program because it impacts

themselves and their environment.

Al-Falah is an Islamic school pursuing packages in Bekasi, West Java. This school upholds Islamic values. an Islamic perspective on the waste problem. The problem of solid waste occupies the highest hierarchy, namely in sustainable waste management in the form of "Waste Generation Prevention." So how do we limit, prevent, or reduce waste generation? However, current waste management practices focus solely on technical aspects. The MUI fatwa is religious guidance that can change the behavior of all stakeholders, both the Government, Producers, and the Community, to avoid various diseases and acts of tabzir (useless) and israf (excessive), the highest hierarchical behavior in sustainable waste management. Moreover, Islam teaches, "Cleanliness is part of Faith."

Back to the problem of the Islamic perspective in looking at the waste problem. The problem of solid waste occupies the highest hierarchy, namely in sustainable waste management in the form of "Waste Generation Prevention." So how do we limit, prevent, or reduce waste generation? However, current waste management practices focus solely on technicalities

The MUI fatwa is a religious guideline that can change the behavior of all stakeholders, the Government, Producers, and the Community to avoid various diseases and acts of tabzir (useless) and israf (excessive), the highest hierarchical behavior in sustainable waste management. Moreover, Islam teaches that "Cleanliness is part of Faith" (Hartanto, 2019).

Islam is a religion that strictly forbids tabdzir. Tabdzir is wasting wealth or wasting something that can be used. This is certainly very hated by Allah Ta'ala, to the point that people who do tabdzir are called brothers of Satan, Allah Ta'ala says:

إِنَّ الْمُبَذِّرِينَ كَانُوا إِخْوَانَ الشَّيْطَانِ ط وَكَانَ الشَّيْطَانُ لِرَبِّهِ كَفُورًا ﴿٢٧﴾
وَأَمَّا تُعْرِضَنَّ عَنْهُمْ اِبْتِغَاءَ رَحْمَةٍ مِّن رَّبِّكَ تَرْجُوهَا فَقُلْ لَهُمْ قَوْلًا مَّيْسُورًا ﴿٢٨﴾

"for those who squander wastefully are Satan's brothers, and Satan is ever ungrateful to his Lord. And when you must turn away from them - (that is, from the destitute, the near of kin, the needy, and the wayfarer) - in pursuit of God's Mercy which you expect to receive, then speak to them kindly" (Surah Al-Isra 17:27-28)

when we can manage all the waste into something productive and provide benefits for creatures, then people who are not involved with waste management properly, based on their ability according to the terminology of tabdzir above, will fall into vile behavior."

According to Ir. Sri Merdekasari, M.Si as the Waste Expert, and Dr. KH. Asrorun Ni'am Sholeh as Secretary of the MUI (Indonesian Religious Leader) Fatwa Commission, to resolve the waste management problem, the Indonesian Ulema Council (MUI) issued MUI Fatwa No. 47/2014 on Waste Management to Prevent Environmental Damage. This fatwa consists of several things. The first is the general provisions. In this fatwa, waste is the residue of daily human activities and/or natural processes, which require special management due to their nature, concentration, and/or volume. Waste management is a systematic, comprehensive, and sustainable activity that includes reducing, utilizing, and handling waste.

Apart from Tabdzir, another problem that arises from poor waste management from an Islamic perspective is Israf. Israf is an exaggeration; namely, the use of goods/wealth exceeds their needs. Every Muslim is obliged to keep the environment clean, use goods for the benefit and avoid various diseases and acts of tabdzir and israf (Rukmana, 2020). After that, information about littering and/or disposing of items that can still be used for the benefit of oneself and others was forbidden.

The second part is about legal provisions. The contents explain that every Muslim must keep the environment clean, use goods for the benefit, and avoid various diseases and acts of tabdzir and israf. After that, there is information about littering and/or disposing of items that can still be used for the benefit of oneself and others, which is illegal.

The third part is a recommendation for the central government, namely increasing the role of public services and protection in waste management following their duties and responsibilities. Then, educate the public about the responsibility of waste management.

Implications

Based on the results of these studies can be stated theoretically and practically as follows:

Practical Implications

a. Knowledge of proper garbage banks can help the neighbourhood protect the environment. Therefore, it is essential to enhance and spread literacy among the larger population.

b. Making garbage into currency with monetary worth can influence people's actions to increase income and protect the environment.

Theoretical Implications

The general public and upcoming researchers can use the findings of this study as a starting point increasing literacy on garbage banks while considering effective teaching techniques and people's desire to preserve the environment.

CONCLUSION

From the above results, we may summarize as follows:

1. Boost the participation of representatives from the RT (Neighborhood Association), RW (Citizen Association), Village, and District in trash bank operations. Support comes in the form of both legal authorization for the sustainability of trash bank operations as well as material and spiritual encouragement to keep people motivated to keep the waste bank sustainable.

2. To encourage the community in waste bank management, conduct various training sessions on waste management, such as composting, the creation of specific commodities or things from recycled materials, or the creation of trash-recycling crafts.

3. Waste banks participate in community empowerment activities including bazaars, training, seminars, workshops, and other events thanks to social marketing from waste bank personnel or waste bank clients.

It is necessary to conduct additional research comparing trash banks that have been operating for a long time and have better consistency with their plans.

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