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WASTE BANK CONCEPT: Having Savings and Income from Waste

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ABSTRACT

The rise of the concept of a waste bank in Indonesian society has its own charm, for example about savings and income from waste. The reason is, so far waste has no value, and even tends to be a problem for the environment. The presence of the waste bank concept is a breath of fresh air that can minimize the risk of waste problems, as well as provide economic benefits. This study was conducted to analyze waste bank activities that generate economic benefits, through the concept of waste bank savings. This research was conducted at the waste bank group in Pondok Pinang sub-district, Jakarta. The research correspondents were members of the waste bank, as many as 54 people. The research method uses quantitative techniques with regression analysis. Research data obtained through the distribution of questionnaires. The results of the study confirm that the waste bank activity is considered positive, because it is an alternative to solving the waste problem and also provides material benefits, although it is acknowledged by the community that it is not significant. However, the proceeds from savings from waste bank activities are quite beneficial for funding community activities. Statistically, the number of waste bank activities can increase savings, and have implications for increasing waste bank income.

Keywords: Waste Bank Concept, Reducing Household Waste, Savings & Income

INTRODUCTION

Waste is a crucial problem in Indonesia. This waste arises because of the disposal of an item by a person or group of people, either industry or individuals who have no economic value. According to Pak Anies Baswedan in his interview with media tirto, he said that the waste generated by the City of Jakarta is around 7,000 tons every day. For this reason, good waste management is needed so that this waste problem can be resolved, while one solution is to establish a waste bank in each area. In one study, it was stated that overcoming waste waste is to manage it, even with it it can be a source of income, and what is needed is science and modern waste management infrastructure (Kusminah, 2018; Linda, 2018; Nugraha, et, al., 2018) .

Technically, the waste bank was established because of the public's concern for the environment that it was increasingly filled with organic and non-organic waste. More and more waste will certainly cause many problems, so it requires processing such as making waste into useful materials. Waste bank management with a waste bank system is expected to help the government in handling waste and improve the community's economy. The results of the research show that the potential for waste from an economic point of view is very varied, for example for organic waste is the potential economic value of magot (fish and poultry feed) and fertilizer. Meanwhile, non-organic waste has a lot of potential economic value, such as paper, plastic, and iron. Of course, if a good system is built, it will have a significant economic impact on the community (Widodo, et, al., 2018; Zulkarnain & Purwani, 2018)

Savings where people can make deposits and withdrawals, the difference is that deposits collected by the community are in the form of waste, while at the bank the deposit is in the form of money. The working mechanism of a waste bank according to Law No. 13 of 2012 includes: storage, sorting and distribution of waste that has economic value in the market so that people will benefit from saving waste. Thus the waste bank program can be used as a social engineering tool to form a good waste management system in the community.

Pondok Pinang Urban Village which is located in the South Jakarta Administrative City area is one of the cities in DKI Jakarta Province that is not free from waste problems. Gebang in the 2021 period has exceeded the storage quota, which is feared for the people of Jakarta that it will be very difficult to dispose of the waste that has been relying on Bantar Gebang as a Final Disposal Site (TPA). In Pondok Pinang Village, there are 12 Garbage Bank groups which are fostered from each group coordinated by one person, where housewives are also active in PKK activities. The deposited waste will be recorded according to the type of waste with different prices. Community participation is quite active in this waste collection activity. Participation is an important capital for waste management programs to be able to successfully overcome problems regarding household waste that are widely found in the community, especially in urban areas (Paramita, et al., 2018). This participation is poured in the form of waste savings. Even in many research developments and the concept of waste, waste has entered the era of digitalization. That is, not only from social, environmental,

and economic aspects, but waste has been developed in a management order that requires a technology system in it, so that waste management is more effective (Marali, et, al., 2018; Pratama, et, al. , 2018).

THEORY

Waste Management

In general, waste is defined as discarded goods, and generally comes from community activities (organic waste and non-organic waste). According to the Big Indonesian Dictionary, waste is goods or objects that are discarded because they are no longer used and so on, while according to Law Number 18 of 2008 concerning Waste Management in article 1 paragraph 1 it is stated that waste is the rest of human and/or natural daily activities that solid form. Referring to Article 19 of Part One Management of Household Waste and Types of Household Waste and Article 20 of Law No.18 of 2008 regarding the management of waste handling funds. Management of household waste and similar household waste consists of:

1. Waste reduction; and
2. Waste management.

Article 20 (1) Reduction of waste as referred to in Article 19 letter a includes the following activities:

1. Restriction of landfill waste;
2. Waste recycling; and/or
3. Waste reuse.

Waste Banks

According to the Regulation of the State Minister for the Environment of the Republic of Indonesia Number 13 of 2012 concerning Guidelines for the Implementation of *Reduce, Reuse, and Recycle* Through Waste Banks in article 1 paragraph 1 defines a waste bank as a place for sorting and collecting waste that can be recycled and/or reused which have economic value.

The waste bank was born from the *Jakarta Green and Clean* which is one way of managing household-scale waste, which focuses on empowering the community in managing household waste. A waste bank is a place to save waste that has been selected according to the type of waste, the waste that is saved in the waste bank is waste that

has economic value. The way waste banks work in general is almost the same as other banks, there are customers, bookkeeping and management, if in a bank we usually know what customers deposit is money, but in a waste bank what is deposited is waste that has economic value, while bank managers Waste must be creative and innovative and have an entrepreneurial spirit in order to increase people's income (Shentika, 2016; Mahyudin, et al., 2018). The waste bank's work system is household-based, by giving rewards to those who manage to sort and deposit a certain amount of waste (Nurhidayah, 2017; Hasnam, et al., 2017).

Waste Savings

Activities to collect waste that has economic value or waste that can be recycled so that it is of economic value by the community.

1. Reducing waste from sources of waste generation
2. Realizing the creation of a clean and green environment
3. Exploring the economic value of waste

Income

Indicators of the level of welfare in a community can be measured by the income it receives. The increase in people's living standards can be described from the increase in *real income* per capita, while the standard of living is reflected in the level and pattern of consumption which includes elements of food, housing, health, and education to maintain a reasonable human status.

Income is one indicator to measure the welfare of a person or society, so that this community income reflects the economic progress of a society (Ratiabriani, et al., 2016). In the context of a waste bank, it is seen as an activity that allows for income. Considering that in these activities there are economic values, especially in the composition of plastic waste, paper and cardboard, iron, and organic waste (Wardany, et, al., 2020). All of them are good potentials in generating economic value (Fitriasari & Nurjannah, 2017). Therefore, waste bank activities can no longer be underestimated, it is necessary to develop a special study in an effort to express economic value in an organized manner, so that in its application it can be carried out by all levels of society.

METHOD

This research is a *correlation research*, namely research that aims to identify variables in certain situations that affect a phenomenon being observed. (Ghozali, 2018). The research design uses a causal method which aims to determine the effect of one or more variables (*independent variable*) on certain variables (*dependent variable*) which is then described in several stages of testing because it aims to determine the effect of the independent variable (waste savings) having an effect on the dependent variable income, waste bank. This study uses a quantitative approach. Quantitative approach is a research approach that uses data in the form of numbers and processing through statistical calculations.

The stages of the research are carried out with initial observations or observations and followed by interviews with resource persons, with the aim of being able to provide informative research results about waste banks to the public. This interview was conducted with the Head of the Economic and Development Section of Pondok Pinang Village.

Sources of data used in this study is secondary data in the form of panel data. According to Hasan (2016) what is meant by secondary data is "data obtained or collected by people conducting research from existing sources". While the panel data itself is a combination of periodic data (*time series*-sectional data*cross*. The data used in this study is the data on the income of all RWs in the Pondok Pinang Village for 2 years (2018-2019). Then the next is waste savings in all RWs in the Pondok Pinang village for 2 years (2018-2019). In which all the data was obtained from the Waste Bank Program in Pondok Pinang Village, South Jakarta.

From some of the explanations above, it can be concluded that in the panel data regression model that uses simple regression, the classical assumption test does not need to be used.

RESULTS

In general, waste bank activities are carried out collectively by the community in Pondok Pinang, and in practice they are carried out independently (there are no attachments that apply to all communities). Then, technically this program was born from the kelurahan, but in its execution it is completely left to the residents who are

members of the waste bank community, then the kelurahan cooperates with the waste collectors, and every waste collected will be rewarded according to the agreed price and using kilo size.

In general, waste that is managed by the waste bank community consists of:

1. Plastic waste

   Waste bank activities are generally dominated by plastic waste, which is about 60%, and this waste which economically has a large contribution to income or becomes waste bank savings . The public realizes that plastic waste is the most common waste item found in the surrounding environment, so it is not surprising that this type of plastic waste always fills the storage area every week.
2. Paper and cardboard waste

   Paper and cardboard waste is in second place. Where this type of waste is not too much, but thanks to the community's collectivity, this type of waste is quite a lot every week.
3. Iron waste

   Iron type waste is not rare, but it is realized that this type of waste has a high economic value compared to plastic and paper waste. Therefore, even a small amount of this type of waste can have a significant contribution to the level of income of the waste bank.

Table 1. Regression Analysis

Constant	11964476
Savings regression coefficient	0.196
T count	3.594
Significant	0.000

Source: Research data, 2021

Based on the data above savings has a significance value of 0.000 where the value is 0.000 <0.05 and the t table value indicates a positive direction, which means that savings have a positive effect on income. Which means that if savings from waste bank activities increase, the income from these activities also increases. However, what needs to be observed is that the value of the savings predicate on income is not large, namely 0.196. The estimated value is relatively small. This explains that the activities of the waste bank are:

1. Side activities, due to limited resources and lack of waste management, so the variation of optimizing this activity is still conventional. This means that it is only limited to collecting and sorting waste that has fundamental economic value (such as plastic, paper, cardboard, and iron)
2. The economic value obtained from this activity cannot be expected as additional income. Even though waste bank activities generate income, it cannot be considered as additional income, considering that the amount received is relatively small and is periodic in nature.

Despite the obstacles as stated above, waste bank customers in the Pondok Pinang Village area actively collect household waste that can be recycled, even though the amount and nominal terms are small, they routinely deposit it to the bank management units. waste to be recorded so that without feeling small things if collected can become waste savings which they can nominalize in the form of money and can directly increase income for the waste bank itself.

Table 2. Correlation and Contribution Test

Correlation	0.363
Contribution	0.038

Source: Research data, 2021

From the results above, the determination value is also 0.038. This means that waste savings contribute to waste bank revenues by 3.8%.

CONCLUSION

Based on the results of the research, the Waste Bank program promoted by the Pondok Pinang Village, South Jakarta, brings benefits to a cleaner environment and reduces piles of garbage around the housing area of Pondok Pinang Village residents. After the existence of this program, it made the community aware that it turns out that waste is able to provide economic value for customers which can increase people's income. Although the results are not great, they feel helped by this program.

Meanwhile, from the test results, it was found that waste savings had a positive effect on income, this indicated that the greater waste savings would be able to increase

the income of the waste bank in the waste bank group of each Pondok Pinang village area.

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