

FROM NOTHING TO BE A THING BY WASTE BANK MANAGEMENT

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Abstract

Waste has been a part of human life since the beginning of civilization. Waste is the end result of activities carried out by humans and nature that are wasted and do not have economic value. Waste problems mainly occur in urban areas because of high population density and activity and are problems that are difficult to overcome and require proper handling. Conventional waste handling by collecting, transporting and disposing to landfills (TPS) has not been able to solve the waste problem completely, therefore innovation is needed in handling and processing waste as a whole so that it has a positive impact on the health of the environment and the economy of the community. One of the innovations or alternative solutions in handling waste is through community empowerment, namely by forming a waste bank. The program is integrating the principles of 3R in waste management (Reduce, Reuse, Recycle) will make community empowerment more effective and efficient by creating creative ideas in processing waste. The government of Surabaya, as one of the second largest cities in Indonesia with a high population density has quite complex waste problems. Several programs have been carried out to deal with the waste problem, including through community empowerment by involving government participation. Here, we use a qualitative descriptive method that aims to convey facts about waste management by empowering the community and the impact of implementing the program both from an economic and environmental standpoint, especially in the Surabaya area. The research shows that changing something from zero value things requires high collaboration and creativity which is shown by the handling of waste through a waste bank program with creative ideas of the community and the participation of the government that have had a positive impact, for everyone, environment and nation in the future.

Keywords : Waste, Waste Bank, Community Empowerment

Introduction

Every living thing generates waste from every activity they carry out, including domestic and non- domestic. Every activity can be assured of contributing waste to the environment and the world (Galdos, M, C. Cerri, 2009). The fact shows that waste is also the biggest contributor to the problem of environmental pollution that occurs in some parts of the world (Giovanis, E, 2015). The more developed a country, the more

solid waste produced is also various shapes, types and sizes (Robertson, F , F. Thorburn, 2007).

The variety of treatments in handling waste also sometimes become a topic of discussion in many discussions in various countries, because waste has also become a cause of a variety of dangerous diseases (Galdos, M, C. Cerri, 2009). Various types of waste management or management patterns have also led to the emergence of entrepreneurial activities related to the process of reduce, recycle and reuse (Giovanis, E, 2015). This entrepreneurial activity also eventually became a place for many people who had the creativity to gather to produce a waste-based product. This entrepreneurial activity is also an opportunity for many housewives and other community members to improve the economic conditions of their families (Cornwall A, 2016).

Entrepreneurial activities that have arisen in several countries, especially developing countries, have helped many families and community members who were previously less able to experience economic improvement (A.Yetisen, L.Volatti, Coskun A et al, 2015). The members of the entrepreneurship group consist of housewives, teenagers and the elderly (Cornwall A, 2016). They not only learn by self-taught, but they also get new knowledge in terms of creativity from social media, the internet, mutual exchange of knowledge between themselves and training from non-governmental organizations and related government agencies. In these ways, in addition to gaining new knowledge in terms of creativity, they will also gain new networks in order to find and obtain a better market for their products (Sokół A, Figurska I, 2017).

The creativity of waste management makes some of the waste is material that some people look for to be reprocessed into something that has more economic value (Robertson, F , F. Thorburn, 2007). The development of community creativity as a competitive community resource causes an increase in community income, so that the level of life for some members of the community and can be ascertained the amount of unemployment can be reduced (A.Yetisen, L.Volatti, Coskun A et al, 2015). Community empowerment in the context of enhancing creativity that is able to turn the creative community into an entrepreneur has become something that is deemed necessary in the context of improving the economic level of the community in particular, and improving the level of the national economy in general (Sokół A,

Figurska I, 2017). It is also certain to be able to become better when the government determines policies that regulate, improve and help improve the ability of existing entrepreneurial activities (Castro Lundin A, Ozkil A, Schuldt-Jensen J, 2017).

International economic conditions are also a concern in the development of entrepreneurship systems in Indonesia. The development of creative community groups that use waste as material to produce objects of higher selling value is one of the fields that also contributes foreign exchange to the state (Sokół A, Figurska I, 2017). So that with the active cooperation of the parties involved it will make the stated goals become easier to achieve with optimal results (Castro Lundin A, Ozkil A, Schuldt-Jensen J, 2017).

Research Method

This paper aims to convey the facts that exist in Indonesia about the waste processing process by forming an organization called a waste bank that aims to reduce problems in terms of waste management, in the form of descriptive qualitative writing, which explains the events or phenomena that are the focus of the research (Supriadi, 2020). In contrast to quantitative research methods, qualitative research requires inquiry using general open-ended questions. Instead of collecting and analyzing numerical data, investigators collect textual data from study participants to find themes using subjective reasoning (Creswell in Zulkarnaen, Wandy. et al. 2020:2475)

Results and Discussion

In line with current developments in population and technology, the problem of waste has become very complicated for all levels of society and many nations in the world (Robertson, F , F. Thorburn, 2007). Trash, which is the remainder of the activities carried out by humanity, generally will automatically become residents of trash bins and garbage dumps (Maulana, F, T. Widiyanto, Y. Pratama et al., 2018). This has become a serious thought for the community and the government, because garbage that is not immediately handled properly will cause many other complicated problems (Galdos, M, C. Cerri, 2009). Because if you handle waste simply, a very large area of land will be needed as a sanitary landfill, so that the next process of handling can be done (Giovanis, E, 2015).

In Indonesia, in recent years, waste originating from various environments has

become a new source of income for some creative community groups (Maulana, F, T. Widiyanto, Y. Pratama et al.,

2018). A variety of solid waste, both organic and inorganic that has been collected will undergo a sorting process to ensure the condition of the rubbish is still feasible to be reprocessed as needed (Giovanis, E, 2015). A lot of solid waste has been undergoing a sorting process since the beginning of the collection process, as has been done by the government in one of the cities in Indonesia, namely Surabaya, which has public transportation in the form of buses where the public can be passengers by carrying plastic bottles as bus ticket payment tools (Robertson, F, F. Thorburn, 2007). And from the plastic waste that is used as a ticket, the Surabaya city government gets hundreds of millions of income, so that it can increase the income of the city of Surabaya (Castro Lundin A, Ozkil A, Schuldt- Jensen J, 2017).

In its development, in the city of Surabaya, household waste in the form of chunks of vegetables that cannot be processed into food, and dried leaves, as well as broken tree branches, are finally reprocessed into new products of market value (Maulana, F, T. Widiyanto, Y. Pratama et al., 2018). The collection of waste is then reprocessed through several stages of the process which ultimately produce a liquid and solid fertilizer (Galdos, M, C. Cerri, 2009). The new products in the form of fertilizers produced are ultimately used by themselves in their environment, so that the potted plants that they have become more fertile and beautiful plants, as well as helping to filter out the dirty air in their neighborhoods (Maulana, F, T. Widiyanto, Y. Pratama et al., 2018). Some of these liquid and solid fertilizers are also traded by creative community groups that manage waste banks, with the hope of earning income that they can use as a source of savings and loan funds, or can also be used as a source of funds for waste banks to maintain equipment, or purchase equipment new requirements, and sources of funds for the creative community groups to conduct training and social activities (Maulana, F, T. Widiyanto, Y. Pratama et al., 2018).

For inorganic waste originating from hospitals, housing, and offices, it will usually get a reasonable handling and processing. This is because inorganic waste is usually in the form of plastic sheets, used plastic bottles, stationery and other solid and hard objects. This type of inorganic waste in the form of plastic will generally be reprocessed by creative factories by conducting multi-layered handling processes.

Plastic waste will usually be cut into smaller sizes and then crushed, melted down and compacted back into small granules of plastic ore, to then be reprocessed into a variety of new products that are widely used in household use, such as plastic bags, trash bins, and others.

The activity of the garbage bank not only collects waste to be reprocessed, but also holds many creative ideas that come from its members. Creative ideas that are collected from members will eventually be discussed to get solutions on how and what to do in the processing (Sokół A, Figurska I, 2017). The creative idea led to the emergence of cooperation between community members who became mobilizers and the community outside the activities of the garbage bank that supported the program. The community in charge of moving the waste bank also prepares candidates for the succession of ideas and activities that have been organizationally established for the continuity and development of these activities.

In some regions in Indonesia, garbage banks have developed into a forum for creative community group members to gain new knowledge and share knowledge between themselves or with creative community group members from outside their area. Often they hold meetings aimed at sharing and exchanging knowledge and experience in managing and developing the results of the garbage bank activities so as to create cooperation between them. The cooperation that has been formed has made the garbage bank an alternative for members of the surrounding community who have limited incomes, although income has not been maximized. For members of the community who previously did not have a job or had just lost their jobs will get the opportunity to have a new job as an

entrepreneur, in other words, they have helped the government in an effort to reduce the amount of unemployment (A.Yetisen, L.Volatti, Coskun A et al, 2015).

In the neighborhoods of settlements and housing in several urban and rural areas in Indonesia, many creative community groups have been formed to serve as garbage bank administrators (Ganle J, K. Afriyie, A. Segbefia, 2015). The garbage banks that are formed get waste that has been sorted by each family based on the type in a certain amount at any given time. From this garbage bank, a group of housewives or household creative industries will begin the processing of plastic waste, which can be in the form of plastic bottles, plastic bags, food wrappers or product wrappers to be

sorted according to their shape, size and type (Maulana, F, T. Widiyanto, Y. Pratama et al., 2018). After the separation process is carried out in accordance with the needs and in the desired amount, for lightweight plastic waste will be reprocessed by cleaning and washing so that the dirt attached can be cleaned and then dried.

Waste bank is an activity that is held by creative community groups independently who care about the condition of increasing amount of waste from day to day. Increasing the amount of rubbish from day to day is not a pleasant situation for everyone. This is caused by the conditions that follow or the effect of the accumulation of garbage in a location without getting proper treatment from the manless party. But the problems caused by the increase and accumulation of garbage is not the fault of only one party.

Creative community groups in several urban and rural areas in Indonesia have established waste banks in their neighborhoods (Ganle J, K. Afriyie, A. Segbefia, 2015). The activity of the waste bank itself is a new breakthrough in managing inorganic waste that is mostly produced by humans. The garbage bank has a workflow that reaches out to groups of housewives and teenagers who have dropped out of school or who are still active in school, even many figures of fathers who have lost their regular jobs, serving as the movers of the garbage bank (Gates, M., 2014). This garbage bank activator is the energy for the garbage bank to actively move in collecting, selecting and reprocessing garbage that has been collected.

In the latest developments, the results of the waste bank's activities have developed into people's bank businesses for members and also for the community outside the waste bank activities. The income earned from the activities of the garbage bank can eventually be developed into soft loans for those who need capital to develop creative businesses that they may have previously had (Weber O,

A. Ahmad, 2014). It has also become a solution for people who have low incomes to open creative independent businesses with the capital they have gained. So that the hope of being able to obtain income improvements for families can be achieved with the existence of such capital assistance (Weber O, A. Ahmad, 2014).

Seeing the development of the waste bank which has become a solution for many parties in need, the government has also given a positive response. The response is in the form of capital assistance in the form of tools, funds, training and knowledge that

support the development process of waste banks in marketing the products they have produced so far. The government also facilitates the marketing process of waste bank creative processed products by holding exhibitions or exhibitions of creative products inside the city, outside the city, national or international level (A.Yetisen, L.Volatti, Coskun A et al, 2015). This is a positive response from the government in giving awards to creative community groups who indirectly also help the nation's economic movement become more positive and varied, and able to contribute foreign exchange, and reduce the amount of unemployment (Castro Lundin A, Ozkil A, Schuldt-Jensen J, 2017).

In order to help the government, many private parties are also eager to help the creative community groups in the form of training, equipment and capital (S. Estrin, T. Mickiewicz, U. Stephan, 2016). Some of them are national and multinational manufacturing companies, not a few non- governmental organizations that provide assistance in the form of training for creative community groups that manage waste banks and the general public, so as to increase the creativity that has been owned (S. Estrin, T. Mickiewicz, U. Stephan, 2016). The training provided is not only in the form of expertise to process organic waste, namely dry leaves, a source of creativity in making contemporary batik, as it has developed in one of the district cities in East Java (Ganle J, K. Afriyie, A. Segbefia, 2015). They also provide training on how to market products that are produced more creatively, namely by utilizing technological advances or e-commerce (N.Choi, S. Majumdar, 2014).

The training provided to creative community groups in several areas in East Java has also made these creative community groups cultivate plants that are considered disturbing the river environment and are often disposed of and left to dry in rubbish bins. Pests or weeds are water hyacinth, which is processed by combining simple and modern processes, namely washing manually and drying in the sun, until processing into a table and chair or furniture products that are modern, but environmentally friendly, and many are marketed with using technological advances to foreign countries. Teak tree root cuttings that in the past few years are considered material that can no longer be used, so that only a piece of firewood for the surrounding community, has also become a source of new high-value economic material after being processed into beautiful table legs or wooden tables due to the very natural architecture of tree

roots, this product can be found in the border areas of East and Central Java (Ganle J, K. Afriyie, A. Segbefia, 2015).

In its current development, the management and processing of organic and inorganic waste in the neighborhoods of settlements and housing in Indonesia in general, in addition to being one of the processes to help the government deal with waste problems, is also an alternative to dealing with unemployment (S. Estrin, T. Mickiewicz, U. Stephan, 2016). This unemployment problem has indeed been more or less addressed by the existence of community empowerment, through creative community groups, both in charge of managing waste banks or other community groups. One of the active groups working in the creative community group is housewives who do not have a permanent job outside the home, there are even fathers who have lost their jobs, adolescents who cannot continue their school because of economic problems, or are disabled. Even some of them are single parents or even housewives whose level of education is minimal, so that their creativity can be minimalist (Gates, M., 2014).

For housewives who act as single parents, in general it can be ensured that they really need additional income to meet their daily needs. Some of them even felt greatly helped by the opportunity to attend training activities held to increase their creativity (Cornwall A, 2016). This is because they do not have to go far away from home and their children to work, which automatically also requires additional costs to reach the workplace. The housewives generally feel very lucky because they also get the opportunity to get free training and learning to develop their creativity (Cornwall A, 2016).

For adolescents of productive and non-productive age who are experiencing economic problems so they must bury their desire to obtain higher education, the training that they get for free is also considered as the beginning of the process of developing and improving the economic conditions of their families (A.Yetisen, L.Volatti, Coskun A et al, 2015). The training can be a source of inspiration and encouragement for the youth group to become a more independent creative generation. Because the spirit of being independent and developing their creativity will encourage them to become entrepreneurs who develop new products from recycle and reuse activities that are handled by garbage banks in their environment (T.Bae, Qian S, Miao

C et al, 2014). So that their aspirations and

desires to obtain higher education through an informal environment can be achieved, and their family's financial condition is believed to be better (A.Yetisen, L.Volatti, Coskun A et al, 2015).

The training received by fathers who have lost their jobs is also a positive and happy encouragement for them and their families (Castro Lundin A, Ozkil A, Schuldt-Jensen J, 2017). Families that have been dependent on their income as family leaders often work together to run a handicraft business that they started after receiving training. So with the cooperation of all family members, it is expected to be able to improve and improve the family's financial condition which was previously minimal. In fact, family health conditions will be better, because the food intake provided for family members will be better.

As for training activities that are generally held by competent government agencies and non- governmental organizations that support women's empowerment programs, at this time it has become a program that is sought after by housewives, fathers and adolescents (Sangar S, 2017) . Because the training activities not only help creative community groups who want to develop, but also become activities that support many other members of the community's desire to gain new knowledge in terms of creativity and social industry based on recycle and reuse activities that can be ensured the necessary capital not too big (Doepke, M, M. Tertilt, 2018). However, being able to produce quality new products, which have characteristics, are not easy to be imitated or falsified by producers from other nations and are able to compete in local, national and international markets. Varied products are also certain to be processed by them, in line with technological developments that are getting better, so that consumers who come from abroad will become loyal customers and increase in number, so that foreign exchange for the country also increases better (A.Yetisen, L.Volatti, Coskun A et al, 2015).

After they have gained a lot of new knowledge, their confidence or self-esteem to be successful entrepreneurs in the future can certainly be subjected to significantly increased change (T.Bae, Qian S, Miao C et al, 2014). That is due to the development of the ecogreen-based business world which has also been worldwide. In the end, the science of creativity reprocessing objects that have been regarded as rubbish so that

they become new products with higher selling value and quality will be added value for housewives and teenagers who drop out of school or come from underprivileged families (Doepke, M, M. Tertilt, 2018). The knowledge is considered sufficient to help them become people and generations who are independent, creative, have better and more competent entrepreneurial skills (T.Bae, Qian S, Miao C et al, 2014). So becoming an entrepreneur is a profession dreamed of by many young generations in the future, being able to open new and broader employment opportunities, and being able to accommodate many workers who are not absorbed by other work environments.

Conclusion

Training for the general public to process the waste that is often found around their homes through creative community groups that manage waste banks should be able to be carried out sustainably or on a scheduled basis by the government and private sector. So that the community can help the government to deal with many other matters relating to the problem of dealing with waste that have become problems for many countries in the world. The activities of creative community groups that manage waste banks are believed to be able to help the government deal with the problem of unemployment in some areas, because these community groups have been able to open new jobs for community members who are not absorbed by the work environment that already existed before (S. Estrin, T. Mickiewicz, U. Stephan, 2016). Because this waste bank activity also produces many new

products and new resources that are expected to be able to meet the needs of the community and the area where they live (N.Choi, S. Majumdar, 2014).

It is expected that independent and creative human resources with strong capabilities will be generated after a creative and sustainable training process. Continued training is expected to produce competent and creative human resources. In this case the government is obliged to support the availability of experts as trainers, mentors and coaches for trainees so that the objectives expected by the government, trainers and trainees can be achieved. In addition, assistance in the form of initial capital in the form of equipment needed in the process of processing raw materials in the form of waste to become high quality and high quality products, and be able to compete with products from other countries in the international market.

The community should be able to develop themselves into strong, independent, quality human resources who have high creativity. This has become an important thing in the global era, because positive self-confidence will drive oneself to be better and be able to influence others to be better like him (A.Yetisen, L.Volatti, Coskun A et al, 2015). Meanwhile, other community members who are not producers of these creative products should be consumers who value and love their own nation's products, and are proud of it (N.Choi, S. Majumdar, 2014). And semi reducing garbage in the future, the community should be able to become more intelligent human beings by using environmentally friendly household appliances and equipment and not goods that can only be used once and then thrown away and become rubbish.

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