



ASSISTANCE IN PREPARING A SOCIAL BUSINESS MODEL CANVAS IN ENCOURAGING WASTE MANAGEMENT PRODUCTIVITY

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Abstract

Waste management could be more optimal. Waste is managed without planning and without seeing the social potential in the community. This paper analyzes the assistance in preparing Social Business Model Canvas to encourage the productivity of waste management teams. The method of writing this paper is carried out with Asset Based Community Development accompanying the compilation of Social Business Model Canvas. The results of this paper show that 7 Waste Management Teams have been arranged in a Social Business Model Canva. The productivity of the waste management team will be based on the Social Business Model Canvas, which will inspire people to care about waste management, personal waste, the environment, and the wider community. The practical implications of this paper encourage the government, through consultants, to maximize assistance in the implementation of waste management by paying attention to the Social Business Model Canvas.

Keywords: Mentoring, Productivity, Social Business Model Canva Development.

INTRODUCTION

Rapid population growth has led to increased community activities. Increased community activity affects the increase in the amount of waste generated. Waste is a source of pollution that will pollute the environment. More and more waste have an impact on reducing environmental quality, health, and aesthetics. Generally, waste management is only done by collecting waste in a trash can, which is then burned or transported to a landfill. So far, waste management has yet to consider reusing or recycling waste to reduce the amount. Waste problems arise because the amount of waste increases, while the community's ability to manage waste needs to be improved.

The population in Ponorogo Regency increases every year. This population growth can potentially increase the amount of waste because the population is directly proportional to the amount of waste generated. The presence of waste banks is an alternative to inviting the community to sort and manage waste wisely to reduce the volume of waste transferred to landfills. Waste management in Ponorogo generally uses the old way of collecting waste to process it at the final processing site.

Table. 1 Waste Management in Ponorogo Regency in 2022

No.	Information	Value (Tons/Year)
I	Amount of waste generation	139.552,49
II	Total waste reduction	29.321,69
	Amount of waste generation restrictions	2.842,25
	Amount of waste reuse	36,71
	Number of waste recycling	26.442,73

No.	Information	Value (Tons/Year)
III	Number of waste handling	85.012,15
	Amount of waste processed into raw materials (animal feed, compost, recycling, and upcycle)	1.062,15
	The amount of waste is utilized as an energy source	0
	The amount of waste processed at the final processing site	83.950,00
IV	Managed waste (II+III)	114.333,84
V	Waste is not managed	25.218,65

Source: Ponorogo Regency Environmental Service

Ponorogo Regency 2022 will produce 139,552.49 tonnes of waste generation, with 114,333.84 tonnes of managed waste and 25,218.65 tonnes of unmanaged waste. However, most waste management is only processed at the final processing site, making waste management less productive. Waste management must be carried out properly to impact the surrounding community positively. Planning waste management with a new, more productive paradigm is necessary by implementing the 3R principle (Reduce, Reuse, Recycle). Waste banks must be able to reduce waste and educate the public in waste management to empower the economy by increasing people's income through waste management. (Sophie Ebot Agborabang, 2022)

Waste management planning training is rarely obtained by waste management communities/ teams, so they choose to manage waste simply through final processing sites. Due to a need for more knowledge regarding more productive waste management plans. Kiyani and Ikizoglu's research regarding types of waste in the context of waste management and a general description of waste disposal in Turkey shows that waste management methods in Turkey are carried out by providing sanitary waste disposal sites, burning, recycling, and composting. (Kiyani & Ikizoglu, 2020) It is essential to recycle waste and avoid transferring it to landfills.

Purnamasari, Eliza, and Priyambada's research regarding the economic empowerment of homemakers in waste management in Bandar Lampung City shows that Emak carried out the program. ID Waste Bank has positively impacted community empowerment by fulfilling the economy, improving education and health, increasing income, and participating in development. (Purnamasari et al., 2023) More productive waste management creates a cleaner environment and positively impacts community welfare.

Waste management at waste banks is classified as a social business. Social business is carried out by searching for solutions and innovation to social problems by seeking profit or not (non-profit) for social interests. (Ghilman et al., 2023) Social Business Model Canvas is a technique intended to visualize social business models fundamentally. The Social Business Model Canvas was adapted from the Business Model Canvas to run a social business better. The Social Business Model Canvas helps

social businesses reflect specifically and intentionally on social impact interventions. J. Howard Kucher and Stephanie E. Raible, *Social Entrepreneurship a Practice-Based Approach to Social Innovation* (United Kingdom: Edward Elgar Publishing Limited, 2022), hlm. 139. Social Innovation Lab created a Social Business Model Canvas that targets organizations focused on social impact and does not only consider financial aspects. (Ray & Shaw, 2022) By understanding the preparation of the Social Business Model Canvas, the waste management team is expected to be able to carry out productive waste management by planning and paying attention to social potential in the community.

This program is a program of the Ponorogo Regency Environmental Service based on funding sources from the CSR Danone group, which is accompanied by the Citra Insan Indonesia Human Development Foundation, Depok, West Java, by making Dr. Binti Nur Asiyah as a resource person in assisting TPS 3R in preparing the Social Business Model Canvas on February 23 2024 in the Ponorogo Regency Bappeda Meeting Room.

METHOD AND PROCEDURES

The mentoring method carried out in this activity uses asset-based community development in the waste management community, using focus group discussion (FGD) techniques regarding business model planning for waste banks. This plan will be used as a guide for designing the Social Business Model Canvas. The Social Business Model Canvas can simplify the concept of a business model. Business planning with the Social Business Model Canvas uses four pillars: implementation, value, market, and finance.

This assistance was held on Friday, February 23, 2024, in the Ponorogo Regency Bappeda Meeting Room. To assist with the business planning overview of several waste banks in Ponorogo, Corporate Social Responsibility (CSR) Danone Indonesia, one of the international Danone companies, supports this training. Participants consisted of representatives of the Waste Management Team (in Indonesia, it is called TPS)-3R (Recycle, Reduce, Reuse), including 1) TPS 3R Panjang Jenanga, 2) TPS 3R Tonatan, 3) TPS Gontor, 4) TPS 3R Paju, 5) TPS 3R Purbosuman, 6) TPS 3R Kertosari Sehat, and 7) TPS 3R Surodikraman.

Table 1. Event Arrangements

Sessi 2: 09.30 - 10.30	Teknis Pemilahan, pemrosesan sampah organik, non-organik, manajemen organisasi TPS3R, dan Bank Sampah	Pengenalan Organisasi Bank Sampah	DLH Kab. Ponorogo	ASOBSI Jatim
Sessi 3: 10.30 - 12.00	Perjalanan Pengelolaan TPS3R dan Profil TPS3R Wates Bersinar	Operasional Bank Sampah dan lingkup kegiatannya	Arfan Zulnihar, SE (TPS3R Bersinar, Kec Wates Kediri)	ASOBSI Jatim
12.00 - 13.00	ISHOMA		Panitia	
Sessi 4: 13.00 - 15.00	Bimbingan teknis penyusunan Business Model Canvas, Financial Literacy & Pembukuan keuangan sederhana TPS3R dan bank sampah		Dr. Binti Nur Asiyah, M.Si. (UIN Sayyid Ali Rahmatullah Tulungagung)	
15.00 - 15.15	Coffee Break		Panitia	
15.15 - 16.00	Menyusun Rencana Tindak Lanjut		Fasilitator	
Penutup	Penutup & Doa		DLH/ Petugas	

RESULTS

This community service activity involves several waste management teams intended to encourage waste processing productivity in Ponorogo. Assistance is carried out using FGD techniques involving representatives of the Waste Management Team (TPS)-3R (Recycle, Reduce, Reuse). In the FGD session, participants were explained how to create a social business plan using the Social Business Model Canvas method. This method is carried out by identifying several vital categories that need to be prepared when planning a business strategy.



Figure 1: waste management training

Several things must be considered when preparing the Social Business Model Canvas (Social Enterprise Institute, n.d.).

1. Mission. Social business aims to improve society. In this case, it is explained extensively how business managers achieve goals and overcome social problems.
2. Key Allies. A business can only survive with others, requiring other people or groups to succeed.
3. Key Resources. All businesses depend on human, financial, physical, or technological resources to carry out their operations and achieve success.
4. Key Activities include the essential activities a social business must perform, deliver, or produce to provide customer value.

5. Social Innovation. Solve problems by thinking of effective solutions compared to previous solutions.
6. Value Proposition Social business provides real value to customers to convince them of the company on the street.
7. Customer Relationship. Good businesses make conscious decisions about which customer segments to target and which to ignore.
8. Customer Segments. Identify groups of customers who share certain behaviors, needs, desires, or characteristics.
9. Channels. Reach target customers effectively by utilizing communication, distribution, and sales channels.
10. Cost of Delivery. Since all businesses require costs, it is necessary to determine the main elements of expenses involved in the industry.
11. Community Reinvestment. Social businesses must make a profit to survive and carry out their mission.
12. Revenue Streams. Combine sources of income to be financially sustainable.

The government encourages community involvement in waste management through waste banks. Community negligence will be the root of the waste problem, especially in big cities. (Eka et al., 2023) Each waste management team certainly has different characteristics, so it is necessary to develop a current business model to determine the characteristics of each waste management team. Each team was accompanied in preparing the Social Business Model Canvas. The results of the business mapping carried out by the waste management team depend on their environmental potential.

First, TPS 3R Panjang Jenanga has a mission to create a clean environment. Implementing this mission with key allies with Bumbes and the Environmental Service, waste chopping equipment as a critical resource, and waste collection as an essential activity, the waste management team has social innovation in paper processing by providing a value proposition. Regarding marketing, the waste management team has a customer relationship, and its customer segments are collectors at high prices through channels such as WhatsApp groups. Meanwhile, in financial terms, the cost of delivery is for salaries of machine maintenance workers and community reinvestment in the form of clean, plastic-free rivers for the community, as well as revenue streams in the form of sold recycled waste.

The business model that TPS 3R Panjang Jenanga has prepared aligns with Hendrik et al.'s research on the collaborative governance model in waste management as a stakeholder empowerment strategy towards sustainable development in Rejang Lebong Regency. In this research, community waste transportation was carried out through community self-help groups and Environmental Service officers. Funds for community self-help groups located in villages are obtained from Bumdes, whereas if they are located in sub-districts, they come from the sub-district budget. The Environmental Service is also seeking support from the private sector through CSR, usually by

providing rubbish bins, trash cans, or community service assistance as a means of processing waste.(Hendrik et al., 2024)

Second, TPS 3R Tonatan has a mission to achieve a healthy and clean environment, reduce the volume of waste, and increase income. Implementing this mission by optimizing the potential in the environment (key allies) and mapping human resources as critical and consistent activities until completion as crucial activities, the waste management team has social innovation according to mutual agreement by providing a strategic location and empowering customers (value proposition). Regarding marketing, the waste management team establishes customer relationships, and customer segments are residents and existing users through channels like village government, religious leaders, community leaders, and social media. Meanwhile, in financial terms, costs are incurred as costs of delivery for operational employee salaries and profits obtained as a secular economy for the community (community reinvestment) and revenue streams in the form of honesty and consistency.

The business model that TPS 3R Tonatan has prepared aligns with Wulandari et al.'s research regarding waste banks as a model for waste management in improving the local economy. Aspects of waste management are reducing the volume of waste, establishing waste banks in each RT/RW, providing environmental education to the community, empowering the community, and promoting economic growth. This waste management model involves the role of the community/society in joint participation in creating a better local economy. This research shows that the waste bank management model helps create a clean and healthy environment and increases the community's income around the waste bank.(Wulandari et al., 2017)

Third, TPS Gontor has a mission to create a clean, developed, and prosperous boarding school environment that can accommodate and manage the waste that enters the TPS and educate students about keeping the boarding school clean. This mission is accomplished by partnering with crucial allies with the lodge foundation, the environmental cleanup department, and the lodge administration department. The essential resources are human resources and waste management technology. Using waste management tools and reducing waste in rubbish bins are vital activities. The waste management team has social innovation as a solution for community waste with a value proposition that can accommodate large amounts of waste and has a strategic position.

Regarding marketing, the waste management team offers waste collection services to customers (customer relationships) and customer segments, namely students, the community, and waste buyers, through RT/RW youth channels. Meanwhile, in financial terms, the delivery cost is for employee salaries. The profits obtained are truck costs for the community (community reinvestment) and revenue streams in the form of transportation costs.

The business model that TPS Gontor has prepared is in line with Ridha et al.'s research regarding waste collection in schools with a waste management system. In this research, Junior High School 1 Banda Aceh implemented a waste collection system to make the school more organized about waste problems. The school still manages funding, facilities, and infrastructure. The school tries

to educate students and teachers in waste management so that they get used to disposing of waste according to its type, and teachers, as cleaning leaders, will give light warnings to those who violate it. This activity can reduce the accumulation or supply of waste in landfills. (Ridha et al., 2021) Schools are an excellent place to learn about proper waste disposal practices. Waste generated in schools provides many opportunities for hands-on learning that can be integrated into the curriculum. (Ecoschools Canada, 2022)

Fourth, TPS 3R Paju has a mission to create cleanliness and develop the people's economy—implementing this mission with critical allies, equipment assembling machine providers, capital guarantors, and collectors. Meanwhile, critical resources are physical resources, counting equipment, and transportation equipment. Building partnerships with collectors is a crucial activity. The waste management team has social innovation in increasing waste's selling value and innovation into valuable goods with value propositions in the form of cleanliness, commercial value, and low costs. Regarding marketing, the waste management team establishes harmonious cooperation with customers (customer relationships) and customer segments, namely the website as an introduction through RT/RW channels, community leaders, and stakeholders. Meanwhile, in financial terms, the delivery cost is based on employee salaries, fleet maintenance, electricity costs, community reinvestment in improving the economy and opening up job opportunities for the community, and revenue streams in the form of increasing sales results.

The business model that TPS 3R Paju has prepared aligns with the UN Development Program regarding employment opportunities. Waste management can create jobs in local communities with waste collection, sorting, processing, and administrative roles. Most of the waste collection processes are informal workers. Sectoral employment for these workers can help increase the number of formal workers and help them adapt to new technology. (United Nations Development Programme, 2023) Apart from that, the results of the business model that have been prepared are in line with the research of Karnawijaya et al. regarding the eco-design of a digital-based waste bank in Sukoharjo, which states that effective waste management requires the use of digital technology. The development of digital media can promote waste management. (Karnawijaya et al., 2022)

Fifth, TPS 3R Purbosuman has a mission to encourage public awareness of waste. This mission is implemented with critical allies, including collectors, chopping machine makers, press machine makers, first aid workers, and the Environmental Service. The Environmental Service and waste collectors are vital resources; waste collection, sorting, sales, and fertilizer production are essential activities. The waste management team has social innovation in waste management with the 3R principles and the value proposition of daily waste collection and organic fertilizer production. Regarding marketing, the waste management team carries out a personal approach. It offers community counseling, education, and service with a smile, regard, and greeting with customers (customer relationship).

In contrast, customer segments are waste collectors, the community, and plant breeders through channels like RT heads, residential building workers, residential shophouse security guards, and customers. Meanwhile, in financial terms, the delivery cost is for overtime/meal pay, equipment for activities, equipment repairs, Community reinvestment in the form of a clean environment, wood waste collection, and cleaning of surrounding areas for the community, as well as revenue streams in the form of monthly residents' fees, processed organic waste, shop/agency fees, and sales of sorted waste.

The business model that TPS 3R Purbosuman has prepared is in line with Faisal et al.'s research regarding the use of organic waste in organic fertilizer. In this research, several activities were carried out, including literacy assistance, solutions for utilizing organic waste into organic fertilizer, and help in using organic waste into organic fertilizer, which was carried out at SDN Sijunjung District. This activity can increase the school community's awareness of waste management, reduce the amount of organic waste produced daily, and turn waste into organic fertilizer.(Faisal et al., 2019)

Sixth, TPS 3R Kertosari Sehat aims to provide waste transporters in residential areas, making waste economically valuable and cleaning the environment—implementing this mission by partnering (key allies) with funders. Network human and intellectual resources are vital resources, and readiness is crucial. The waste management team has social innovation in waste processing by providing a value proposition in the form of social cleanliness and the commercial value of waste that can be sold. Regarding marketing, the waste management team maintains good relationships with customers (customer relationships) and customer segments, namely customers, so that waste does not accumulate through channels like RT/RW communication and social media. Meanwhile, in financial terms, the delivery cost is for salaries of scavengers, machine factories, transportation, community reinvestment in a clean environment for the community, and revenue streams in the form of processed waste.

The business model that TPS 3R Kertosari Sehat has prepared is in line with Hidayat et al.'s research on the effectiveness of plastic waste management in the Indonesian industry. In this research, it was stated that alternatives to overcome the problem of plastic waste can be implemented by reducing, landfilling, incineration, recycling, and reusing. Each industry is expected to implement a system to process different types of plastic waste so that the processing results can be sold to various industries as raw materials and generate profits.(Hidayat et al., 2019) Apart from that, the business model that TPS 3R Kertosari Sehat has prepared is also in line with the research of Ali et al., which discussed the environmental management cooperation related to waste management around the Pasur Klaten River. In creating a clean environment, waste managers select waste according to its characteristics, recycle waste into crafts, recycle waste into fertilizer, and minimize the use of waste-producing items. (Ali et al., 2021)

Seventh, TPS 3R Surodikraman has a mission to create clean and trash-free sub-districts and make the River Clean program a success. This mission will be implemented by partnering (key allies)

with funders, machine suppliers, financiers, and waste recyclers. Providing work tools, worker skills, and relationships as critical resources and waste collection, selling sorting results, and bookkeeping are vital activities. The waste management team has social innovation in an easily accessible location with a value proposition of friendly customer service. Regarding marketing, the waste management team communicates well with customers (customer relationships) and customer segments, namely the village government, schools, and Muslimat Hospital, through RT/RW communication channels. Meanwhile, in financial terms, the delivery cost is for worker salaries, transportation wages, and machine operating costs. Community reinvestment creates a clean environment and increases income and revenue through community fees, recycling, and waste sorting sales.

The business model that TPS 3R Surodikraman has prepared aligns with Pertiwi et al.'s research regarding the waste management system in the Bandung River area in Bali. In this research, the waste management system in the water catchment area is divided into waste generation, storage, collection, disposal, transfer, and waste disposal. The waste selection process and 3R principles must be considered to keep rivers clean.(Pertiwi et al., 2019) Apart from that, the business model that TPS 3R Surodikraman has prepared is also in line with Assa and Wibisono's research regarding waste management for beach and sea cleanliness on Pari Island. The research results show the participation of local communities in sorting waste at the household level and the need for the government's role in providing facilities and infrastructure for transporting waste.(Assa & Wibisono, 2020)

The waste management teams show that the primary mission of waste processing is to create a clean environment and make waste economically valuable. Through the 3R principle, waste processing aims to positively impact ecological education, increase economic welfare, and increase community creativity. (Djunaidy, 2023) Through waste banks, waste has the potential to empower communities. The main target of waste banks is still oriented towards reducing the volume of waste, which still needs to be fully oriented towards improving the economy. Waste can be monetized by increasing community participation and educating the public about 3R behavior. (Shinta, 2019)

The obstacles faced in processing productive waste are the large number of waste management teams that need to be fixed, the inability to finance operations, the low level of community awareness, and the failure to maximize economic power in waste management. With assistance in preparing this Social Business Model Canvas, people can be inspired to care about waste management, personal waste, the environment, and the broader community so that waste processing can be more productive and improve community welfare.

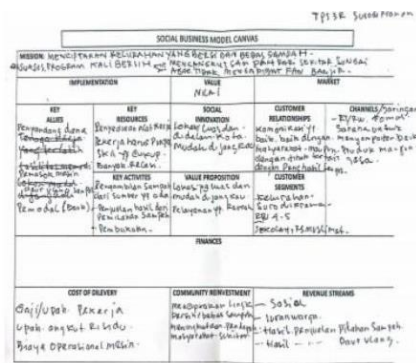


Figure 1. Outcome Social business model canvas

CONCLUSION

The conclusions obtained from mentoring through FGD can be used to look at the Social Business Model Canvas that the Waste Management Team will use. Waste management in Ponorogo by several Waste Management Teams, which still needed a waste management business model, was ultimately successful through mentoring. If waste is managed with planning and looking at the social potential in the community, waste can be handled productively and have an economic impact. Several business models prepared by the waste management team show that the primary mission of waste processing is to create a clean environment and make waste economically valuable. The Social Business Model Canvas technique can help the Waste Management Team create a waste processing business model that considers financial aspects and social impacts. The government, through consultants, needs to maximize assistance in implementing waste management by paying attention to Social Business Model Canvas.

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