

## **WASTE MANAGEMENT DEVELOPMENT STRATEGY BY BANK SAMPAH DALANG COLLECTION PEKANBARU CITY**

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### **ABSTRACT**

*The problem in this research is that garbage is not picked up every day causing a lot of piles of garbage in the city of Pekanbaru which has an impact on creating an unsanitary environment, this is of course inseparable from the lack of public awareness regarding waste management, especially the city of Pekanbaru. The purpose of this study was to analyze the development strategy in waste management by the Dalang Collection waste bank in Pekanbaru and to analyze the factors that influence the development of waste management in the Dalang Collection waste bank. This research uses descriptive qualitative method with SWOT analysis. The results of this study indicate that the strategy in developing the dalang collection waste bank can be said to be optimal, namely in the form of planning, training, outreach and visits that have been realized through increased activities for the community. From the results of the study, the proposed strategy that can be used in developing the management of the dalang collection waste bank is to improve the internal quality of the organization by balancing external organizational factors and the factors that influence the strategy for developing the waste management of the dalang collection waste bank, namely support from the government, customer loyalty and facilities adequate infrastructure.*

**Keywords:** *Development Strategy, Waste Bank, SWOT*

### **ABSTRAK**

*Permasalahan dalam penelitian ini adalah dengan tidak terangkutnya sampah setiap harinya menyebabkan banyaknya tumpukan sampah yang ada di kota Pekanbaru yang berdampak terhadap terciptanya lingkungan yang kurang bersih, hal tersebut yang tentunya tidak terlepas dari kurangnya tingkat kesadaran masyarakat mengenai pengelolaan sampah, khususnya kota Pekanbaru. Tujuan dari penelitian ini adalah untuk menganalisis strategi pengembangan dalam pengelolaan sampah oleh bank sampah dalang collection Pekanbaru serta untuk menganalisis factor-faktor yang mempengaruhi pengembangan dalam pengelolaan sampah di bank sampah dalang collection. Penelitian ini menggunakan metode kualitatif deskriptif dengan analisis SWOT. Hasil penelitian ini menunjukkan bahwa strategi dalam pengembangan bank sampah dalang collection dapat dikatakan sudah optimal, yaitu dengan bentuk*

*perencanaan, pelatihan, sosialisasi serta kunjungan yang telah terealisasi melalui peningkatan kegiatan kepada masyarakat. Dari hasil penelitian, usulan strategi yang dapat digunakan dalam pengembangan pengelolaan bank sampah dalam collection adalah meningkatkan kualitas internal organisasi dengan menyeimbangkan factor eksternal organisasi dan Adapun factor-faktor yang mempengaruhi strategi pengembangan pengelolaan sampah bank sampah dalam collection yaitu dukungan dari pemerintah, loyalitas nasabah dan sarana prasarana yang memadai.*

**Kata Kunci:** Strategi Pengembangan, Bank Sampah, SWOT

## INTRODUCTION

Indonesia is a country that has a relatively dense population. According to the Central Statistics Agency (BPS) report, Indonesia's population will be 273.8 million in 2021. With a relatively dense population, Indonesia is one of the countries that contributes the most waste. According to the Ministry of Environment and Forestry (KLHK), the number of piles of waste in Indonesia in 2021 will reach 28,790,047.76 tons/year.

Law Number 18 of 2008 concerning Waste Management and Government Regulation Number 81 of 2012 recommends the need for a fundamental paradigm renewal in

waste management, namely from the collect-transport-dispose pattern, to processing that focuses on waste reduction and waste handling. It is time for the waste management paradigm that relies on the final approach to be abandoned and replaced with a new paradigm. The paradigm that values waste as a resource that has economic value and can be utilized, such as energy, compost, fertilizer and industrial raw materials.

In Indonesia, almost all provinces have landfills, one of which is Riau province, with an area of 87,024 km<sup>2</sup> and a population of 6,394,047 people. Riau provincial statistical center agency.

**Table 1. Garbage Piles in Riau Province in 2020**

NO	Kab./Kota	Daily waste pile (ton)	Annual landfill (tonnes)
1	Regency. Kampar	351.88	128.435,47
2	Regency. Bengkalis	257.85	94.115,74
3	Regency. Indragiri Hilir	299.93	109.472,70
4	Regency. Pelalawan	151.12	55.158,80
5	Regency. Lower Rokan	513.30	187.355,08
6	Regency. Siak	191.07	69.739,82
7	Regency. Kuantan Singingi	133.66	48.784,73
8	Pekanbaru City	1.212,90	442.709,35
9	Dubai City	159.91	58.368,43
<b>Total</b>		<b>3.155,87</b>	<b>1.151.892,31</b>

Source: National Waste Management Information System (SIPSN) 2020

Table 1 shows the number of landfills in Riau Province, to be precise in 9 regencies/cities in 2020. The highest amount of landfills is in the city of Pekanbaru, which is 442,709.35 and the lowest amount is located in Kuantan Singing district, which is 48,784.73. Thus, the city of Pekanbaru is the city with the most piles of waste in Riau province.

Based on the Pekanbaru City Regional Regulation No. 08 Tahun 2014 regarding waste management which urges the public to be able to manage waste properly and correctly starting from sorting-collecting-transporting-managing and processing waste into a valuable product with the aim of increasing public awareness of waste management and minimize the existing waste and minimize the existing waste in the city of Pekanbaru.

**Table 2. Garbage Piles in Pekanbaru City in 2018-2021**

NO	Year	Waste heap (tonnes/year)	Waste Handling (%)
1	2018	403.757,71	65,58
2	2019	413.124,85	71,64
3	2020	442.709,35	71,22
4	June 2021	254.116,47	60,19

Source: Pekanbaru City Government DLHK 2022

In Table 2 attached, the number of piles of garbage in the city of Pekanbaru in 2018 until mid-2020 has increased, in 2021 it was confirmed that the piles of garbage were recorded only until June. The highest number of piles of waste was in 2020, which was 442,709.35 with a waste handling rate of 71.22 percent and the lowest level of waste piles in 2018, which was 403,757.71 with a waste handling level of 65.58 percent, which increased the amount landfills in the city of Pekanbaru every year.

From the results of the pre-research it was indicated that the increase in the amount of waste was caused by an increase in population accompanied by changes in people's lifestyles which tend to prefer something that is instant and choose goods that are economical. Considering that at the beginning of 2020 the community was in the midst of the Covid-19 pandemic, this made the community produce more waste. This can be seen in the types and amounts of waste generation that are increasingly diverse and difficult to decompose in the environment, as evidenced by the increasingly diverse types and generation of plastic waste, ranging from styrofoam, shopping plastic bags, food packaging and so on. This is also supported by the low level of public awareness of waste management. rubbish. What's more, the majority of the population does not collect garbage in the location provided (TPS) because the access to the TPS is far from the settlements of the surrounding residents who dispose of waste illegally. Meanwhile, DLKH only handles waste in the designated landfills.

From the lack of awareness that grows within the people of Pekanbaru City, the amount of waste will increase, therefore special handling is needed for this waste. In managing the utilization of waste into handicrafts that have economic value in order to minimize

plastic waste, of course it will be very useful.

Apart from that, as an alternative in overcoming the waste problem, there needs to be an effective strategy or breakthrough from both the Pekanbaru city government and the community, involvement from the community in handling waste, namely by forming a container, from the lack of waste management containers, there is an initiative from Some people who are aware of the existence of this waste have created a waste management container, namely the Garbage Bank.

In Pekanbaru there are approximately 257 waste banks scattered in various settlements in Pekanbaru City. From the number of containers that manage waste, it gives an idea about waste that is not useless, but has use value. Thus waste is increasingly becoming a bone of contention in waste management circles. not only waste banks, companies that recycle waste as well as garbage collectors (scavengers) also participate in waste collection to gain profit.

Researchers focused on One of the Largest and First Main Waste Banks in Pekanbaru City, namely the Dalang Collection Garbage Bank, this waste bank became a pioneer for waste banks in Riau province, especially the city of Pekanbaru. There are not a few units produced by the Dalang Collection Garbage Bank which are still running today, especially in the

city of Pekanbaru. The Dalang Collection waste bank is one of the containers that accommodates waste into goods of economic value in the city of Pekanbaru.

The Dalang Collection waste bank, which has been established since 2007, is located at Jalan Gajah No. 33, Kelurahan Rejosari Tenayan Raya, Pekanbaru City, which is located in a local residential area. The Dalang Collection Garbage Bank is engaged in industrial crafts that recycle waste or household plastic waste, which are items that have a sale value that generates money. As time goes by, more and more people are aware of the products produced by the Dalang Collection Garbage Bank, especially those around them. However, thanks to the creativity and hard work of the owner, the Dalang Collection Garbage Bank is now becoming known, alongside inspiring media such as television.

The Dalang Collection Garbage Bank has 24 members or employees who are in the Collection Garbage Bank, which consists of housewives. There are 3 people in the warehousing section, namely the earliest part of the recycling process, namely the raw materials to be included must first be weighed and then sorted and then separated according to the part and type, the cutting section is 5 people, which is an important stage, cutting or chopping clean plastic, the stage of cutting it yourself to make it easier and

more efficient can be done using a plastic chopper, the 12 person craft section is the stage where the concept of recycling plastic waste is determined. The results of plastic waste bags that have been made according to the motif are then bent to the length and width to meet packaging needs. and 3 people in the marketing department, namely the part that registers and promotes products with 1 person as bookkeeper.

To obtain recycled raw materials, this bank has collaborated with schools in the city of Pekanbaru and communities around settlements. The Dalang Collection Garbage Bank has also opened training or courses for housewives who want to hone skills in terms of handicrafts, waste recycling. The products produced can be sold at affordable or relatively cheap prices and can be rented out to schools that are taking part in annual parades or carnivals. In obtaining raw materials for recycling, the Dalang Collection Garbage Bank has collaborated with 13 community settlements around Pekanbaru City, 34 schools in Pekanbaru City and at 3 universities in Pekanbaru.

**Table 3. Garbage Piles in Pekanbaru City in 2018-2021**

N O	Year	Number of Customers
1	2019	789
2	2020	642
3	2021	431

Source: Dallang Waste Bank  
Collection 2022.

In table 3 it is explained that the number of customers from the Dalang Collection Garbage Bank has decreased in the last three years. In 2019 there were 789 customers, then in 2020 there were 642 customers and in the final year 2021 it decreased again to 431 Dalang Collection Garbage Bank customers.

From the results of the pre-research, the decrease in the number of customers was due to the non-operation or closure of a number or most of the customers who joined the mastermind collection waste bank, starting from schools, universities and even residential areas. It was recorded that there was a very large decline from 2020 to 2021 where in that year the Indonesian people, Pekanbaru in particular, were in a pandemic situation, so that many of the waste bank customers were laid off or closed.

The number of active workers and customers will have an impact on the waste management process. The Dalang Collection Garbage Bank, which was originally able to manage 30 tons of waste, is now only able to process half of it, namely 15-20 tons of waste per month. Not yet optimal waste management and human resources as well as low public interest, have an impact on the existing waste management program in Pekanbaru City, through this waste bank program

it can overcome the waste problem which will continue to increase every year which will certainly have a negative impact on the community.

Starting from the existing phenomena, the authors are interested in researching how waste management efforts in Pekanbaru City are with the title: Waste Management Development Strategy by the Dalang Collection Garbage Bank Pekanbaru City. With the formulation of the problem as follows:

1. What is the development strategy in waste management by the mastermind collection Pekanbaru waste bank?
2. What are the factors that influence the development strategy in waste management at the mastermind collection waste bank?

With the aim of analyzing the development strategy in waste management by the Dalang Collection Waste Bank Pekanbaru and analyzing what factors influence the development strategy in waste management at the Dalang Collection Waste Bank.

## LITERATURE REVIEW

Rangkuti (2017: 183) says that the Strategy is a comprehensive or thorough main plan, which examines how the organization can achieve the goals that have been set based on the mission that has been previously set.

According to Anoraga (2007:66), development is the goal of every business or organization that requires



patience, motivation, and creativity. If this could be achieved by every business, it would be a significant step toward turning a small business into a larger business.

According to Bryson (Suwarsono Muhammad, 2012: 86) Strategy can be interpreted as a growth strategy if the strategy in question works to create a better future. The choice of this strategy can be implemented if there is sufficient support from the external environment to meet the internal needs of the organization. Bryson also mentions that a formal appraisal system can be used to provide guidance when developing strategy.

According to George R. Terry (Sukarna, 2011: 10), management functions include planning, organizing, implementing, and supervising. POAC has more powerful management functions.

According to Rangkuti (Rusmawati, 2017: 918) SWOT analysis is a systematic identification of several factors to improve company strategy. This analysis is based on logic, which can maximize the value of Strengths and Opportunities, while minimizing Weaknesses and Threats.

## **METHOD**

This study uses a qualitative research form with a descriptive phenomenological approach. The location of the research was carried out in the Dalang Collection Garbage Bank industry in Pekanbaru City. The reason

for choosing the research location was because the Dalang Collection Garbage Bank was the pioneer or manager of the first waste recycling material in Pekanbaru, and made it a place to invite people to process, save and work to produce thousands of works from various kinds of plastic waste. Primary data and secondary data are the two types of data used. The informant is the owner and founder of the Dalang Collection Garbage Bank, the Pekanbaru City Environment and Sanitation Service (DLHK) as a Supervisory Agency and Customers/Society. In addition, data collection can be done through the use of questionnaires, documentation, and observation, which can be done slowly or quickly. The data analysis technique is carried out using SWOT analysis with an emphasis on analysis of the organization's internal environment (production and human resources) and the organization's external environment (competitors, technological developments and government policies) through a strategic management process. *planning, organizing, actuating and controlling.*

## **RESULTS AND DISCUSSION**

### **Strategy for the Development of the Dalang Collection Garbage Bank**

#### **1. Internal Environment**

##### **a. *Planning* (Planning)**

*Planning* or Planning carried out by the mastermind's garbage bank *collection* related to production

and human resources (HR) in developing the management of the mastermind collection waste bank conducting promotions. such as conducting training, visits and exhibitions, empowering the community by participating in waste management and building training containers made of ecobricks as a symbol of containers made of waste (garbage gallery).

b. *Organizing* (Organizing)

*Organizing* or the organization carried out by the Dalang Collection Waste Bank, which is related to production and human resources in developing the management of the Dalang Collection Waste Bank through forming an organizational structure, dividing the division of labor, conducting coaching, increasing individual creativity.

c. *acting* (Briefing)

*acting* or directives carried out by the dalang collection waste bank in developing the management of its waste bank, namely through discussions, coaching and training to form a directed and implemented waste bank work pattern with a pattern of kinship or mutual trust. In addition, the Dalang Collection Waste Bank also motivates the community to join, either as customers or employees, with the aim of helping empower the community and increase their income.

d. *Control* (Supervision)

The dalang collection waste bank does not carry out overall supervision, but only during the final production process by adjusting the nominal amount of money to the work produced by its employees. Thus, whether the results are good or not, depends on the tenacity of the human resources themselves

## **2. External Environment**

a. *Planning* (Planning)

The planning that is carried out by the mastermind collection waste bank, especially those outside the organization, namely competitiveness, technology, government policies and community behavior for the development of the mastermind collection waste bank management is to have no plans for competitors who are outside the organization. for the use of technology, the dalang collection waste bank only uses information technology, sewing machines and transportation technology. Through government policies, the dalang collection waste bank will continue to carry out its program activities in accordance with existing policies and will continue to invite the public to contribute to waste management.

b. *Organizing* (Organizing)

The organization carried out by the dalang collection waste bank in overcoming the level of competitiveness, technological developments, government policies



The dalang collection trash bank does not supervise its management of the level of competitiveness and technological developments and the role of the government is only as a supporter in terms of providing facilities, as well as some people who participate in appreciating the dalang collection garbage bank by joining as customers and visiting galleries.

<ul style="list-style-type: none"> <li>with other parties in waste management</li> <li>Clean environment</li> <li>Increase income</li> </ul>	<ul style="list-style-type: none"> <li>Expand <i>network</i> for a larger share of the industry market</li> <li>Collaborating with external parties regarding waste management</li> </ul>	<ul style="list-style-type: none"> <li>by conducting training from external parties</li> <li>Increase the use of technology by implementing online-based garbage applications</li> </ul>
Threat (T)	Strategy (S-T)	Strategies (W-T)
<ul style="list-style-type: none"> <li>Limitations and community participation is not optimal</li> <li>Public appreciation is still low</li> <li>Scavengers and other waste banks as competitors</li> <li>Less and less customers</li> </ul>	<ul style="list-style-type: none"> <li>Making scavengers partners in waste management</li> <li>Providing rewards to the best customers with the aim of avoiding indirect customer decline rates.</li> </ul>	<ul style="list-style-type: none"> <li>Increasing innovations to retain customers through direct surveys to customers</li> <li>Always coordinate with the government with the aim of aligning with government regulations.</li> </ul>

Source: Processed Data 2022

After carrying out the aforementioned SWOT analysis, it will be possible to develop several alternative strategies using the internal resources of the organization such as strengths, weaknesses, opportunities and threats, which are listed below:

#### **a. Strategy S-O**

1) Improving internal activities to accommodate changes in people's behavior

To be able to change people's behavior, the *dalang* collection garbage bank can increase existing activities within the organization so that it can have a greater impact on society by increasing the number of activities that involve the community in it, be it competitions or charity activities through programs of cooperation with other parties or investors .

2) Expand *network* for a larger share of the industry market

Expand working relationships by joining investors who will increase market share through promotions to owned media, both working relations within the region and outside the region to be able to increase income as well as open up job opportunities.

3) Collaborating with external parties regarding waste management

Through cooperative relations with external parties, this will maintain competition and maintain the stability of services to the public. Moreover, if there is an enforcement of the same waste price stipulations for each manager, it will avoid unhealthy competition

#### **b. W-O Strategy**

1) Improve the monitoring system

By carrying out systematic assessments to set performance standards in planning and providing a feedback system regarding existing information so that deviations do not occur in the organization.

- 2) Improving HR capabilities by conducting training from external parties

Through training provided by external parties, it will provide a new picture to employees regarding the sciences in creating creativity, this will certainly increase the skill level of individuals at work.

- 3) Increase the use of technology

By trying to implement an online-based waste bank application, apart from improving technology, this can also improve HR's ability to adapt to existing technological developments.

#### **c. Strategi S-T**

- 1) Become a scavenger

Through this system, scavengers no longer sell waste to waste collectors, but deposit it directly into the waste bank and then deduct it. For the nominal given can be discussed in advance between the two parties,

- 2) Reward the best customers

In this case it will reduce the level of customer decline indirectly. Just like conventional banks in general, which provide bonuses and prizes to customers that will make customers loyal.

#### **d. W-T strategy**

- 1) Improving innovations to retain customers can be done by conducting customer surveys regarding waste bank ratings, creating customer loyalty programs and holding exhibitions to introduce their works to the public.

- 2) Always coordinate with the government

This is very important to be able to align between the regulations given by the government and the mastermind collection waste bank so that they remain appropriate. This of course will provide reciprocity from the government for the participation of the mastermind behind the collection regarding waste management in the form of an award and so on.

#### **Factors Influencing Strategy Development**

1. Government support

This is channeled in the form of support provided by the government to the waste bank masterminding the collection in the form of infrastructure to carry out waste bank operations and the government's high hopes for the waste bank managing waste and the community.

2. Customer loyalty

The form of loyalty that customers give to the Dalang Collection Waste Bank is in the form of continuing to save and participating in programs carried out by the Waste Bank.

### 3. Adequate infrastructure

The infrastructure used in the operation of the Dalang Collection waste bank is sufficient and is one of the factors influencing the development of the Dalang Collection waste bank management.

## CONCLUSION

The strategy in developing the mastermind collection waste bank can be said to be optimal, with plans to create a garbage gallery as a place for outreach, training, coaching and visits which have begun to be realized through increased outreach activities to the community. Based on the results of the research, the proposed strategy that can be used in developing the management of the mastermind collection waste bank is to improve the internal quality of the organization by balancing external factors

The factors that influence the waste management development strategy for the Dalang Collection waste bank are related to the following matters, namely the existence of support from the government, loyalty from customers and adequate infrastructure in the operational process of the waste bank.

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