

Design Model of Development of Small Industries Village for Value Adding of Automotive Components Waste Based on Community Development (Case Study At Sasakpanjang-Bogor)

Kosasih, Mutmainah^a, Andreas Tri Panudju^b

^{a,b} Teknik Industri, Universitas Muhammadiyah Jakarta, Jakarta, Jl. Cempaka Putih Tengah 27., Indonesia
Corresponding author: kos_hur@yahoo.com

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Abstract: Many wastes are increasing every day, and therefore need a better management in order to be utilized as much as possible and can be used again. Waste in the Indonesian automotive components necessary a management-based community development so that waste automotive components can be beneficial to society. In Sasakpanjang village is one of the villages that today many groups evolved in managing waste automotive components. To increase and keep the sustainability of economic activity and the conversion of the criminal culture in Sasakpanjang village will require a business development model of community-based on community development. This study uses a Research and Development (R & D) which is a research carried out by the process or steps to develop a new product, or improve existing products. In principle, in the process and research activities is taking some steps that can be described as follows: The first step: survey research. The second step: theoretical research. The third step: modeling. The fourth step: validation of the model. The fifth step: assessment and development models. From the analysis it was found that: 1) the presence of the process of adding the value obtained at least by 4 times greater, 2) with the addition process of this value will be gained additional skills of local people, enhancement and movement of local community economy and waste reduction component automotive waste very significant. Model-based Development of Rural Industrial waste is very conducive to a more sustainable society. It is also encouraging the learning process in the community related skills training, management and entrepreneurial character to form local communities

Keywords : Model Design, Industrial Village, Small Industry, Automotive Waste

Introduction

Waste is increasing each day, and therefore need a better management. To be utilized as much as possible and can be used again. Waste in the Indonesian automotive components necessary management-based on community development so that waste automotive components can be beneficial to society. In Bogor Regency Sasakpanjang village is one of the villages that today many groups that evolved in managing waste automotive components. Besides known as a cheap auto parts sales center, the village is also known as the village Sasakpanjang 'Heaven' for the robber. Sasakpanjang was in the border district of Bogor and Depok or precisely located in the Tajur Halang district, Bogor Regency. Sasakpanjang is a village that is located quite far away and the farthest. To be able to get to the village of cool air, it can take a trip for two to three hours from the city of Depok. Actually, there's nothing special from the village overgrown bamboo groves that in addition to stalls selling cheap motorcycle parts. Sasakpanjang village is well known as the location of the black market motorcycle parts priced. There are more than 10 stalls spare parts cheap in this village. To increase and keep the sustainability of economic activity and the conversion of the criminal culture in Bogor Regency Sasakpanjang village will require a business development model of community-based community development.

Method

This study uses a Research and Development (R & D) is a research carried out by the process or steps to develop a new product, or improve existing products. In principle, in the process and research activities is taking some steps that can be described as follows: The first phase; Survey research. The second stage is theoretical research. The third stage is modeling. The fourth stage is validation of the model. The fifth stage is assessment and development models.

Result

In this study, respondents who used amounted to 51 people all male sex. With the age range <20 years are 7 people, between 20-30 years are 27 people, between 30-40 years are 13 people and between 40-50 years are 4 people. That is based on the data showed that the predominant age earning over 53%. Therefore, human resource is a resource and an excellent potential to be supported and developed to be good in mentoring skills development, marketing and support capital.

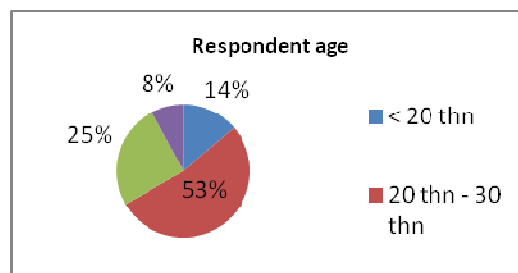


Fig. 1. Respondent Age

Input

Control of raw materials into something is important in supporting the development of industrial village to get certainty of the raw materials to be processed. No shortages and obstacles to obtain raw materials. Raw materials of waste automotive can be identified its source. Institution is responsible for the sources of raw materials and look for suppliers of raw materials so that the availability of raw materials remain. Institution (e.g. cooperatives) will ensure the supplier of fixed supply of raw materials, as well as agencies strive to find new supplier. It also seek and strive together with employers to increase raw materials than before, which adds standard that can be managed and utilized in addition to the automotive waste such as used tires, metal and plastic. Also expected to maximize and can manage other automotive waste. During this time reject automotive component are as follows: Components Used Tires, Components of the plastic and Automotive Components (Metal)

Process

Incoming raw materials be managed properly as much as possible and produce products that could be useful and gives good effect both social and economic level to the local community. Therefore we need an organization that becomes a good mechanism to organize everything. Both aspects of in and out of raw materials, the flow of materials supply to each group or entrepreneur, building workteam among entrepreneurs, develop capacity of human resources and capital, maximized market. Existing components are processed is as follows:

- Marketing
 - Service
 - Marketing Gallery, etc.
- R & D
 - HR Development
- Tools Development;
 - 1) Used tyres recondition process
 - 2) Plastic granulling machine,
 - 3) Metal granulling machine.
- Cluster
 - Used Tyres
 - Metal

- Plastic
- Partner (Bank, local government, company, etc)

Output

The output is an indicator of success and achievement of the goals of the organization. Likewise Village Industries as a region which has the goal of which is to be the village / town into a village that can be independently and be an industrial area (SMEs) dapt good economic benefits (welfare) as well as the improvement of social status. The products are of good quality and can be marketed, it is our hope and the establishment of this industrial village. But most important is the management can be managed and the result (product) can be optimized both the results and the distribution or salable. The output is divided into two things: Recondition and Non recondition automotive waste.

From each group Non Reconditioning component can be added of its value of existing processes, namely:

- a. Used tires that cannot be reconditioned, which so far only sold to kiln in Bogor can be processed further to become a product that has a sale value is higher, such as flower pots, buckets, rubber engine cradle, table and lawnchairs, powder tires, etc.



Fig. 2 Output of non-recondition used tyres

Metal waste which has just sold a kilogram to collectors can be increased again its value with the addition of the process to be scrap which have a higher selling price.

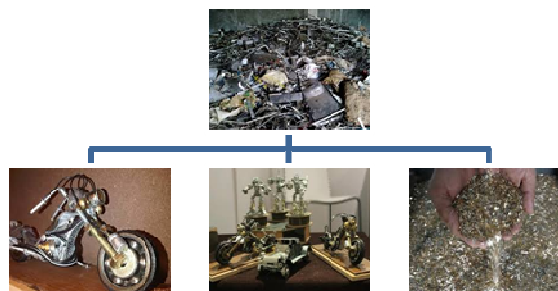


Fig. 3. Output of Non- Recondition Metal

Raw materials of plastic waste, which had only sold kilogram, can also be improved resale value with the addition of a process for the manufacture of plastic ore which can be further processed into finished products that can be sold directly to consumers, so as to further improve revenue craftsmen.

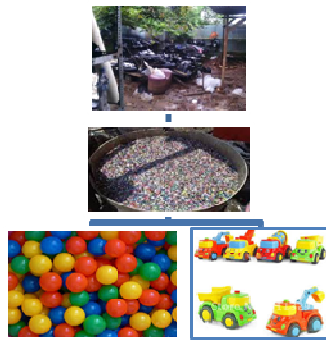


Fig. 4. Output of Non-recondition used plastic

In addition to the cooperative that serves as an operational agency for designing, managing, marketing, evaluating, there is a need of the Supervisory Board which serves as the highest assembly overseen, control the management and development of the area under the management of cooperative institutions. Cooperative oversees several groups / clusters that autonomously function to manage according to the type, capabilities and tasks that have been given to produce according to their respective functions. Cooperatives should strive to communicate and build partnerships with financial institutions, research and development institutions, government agencies, private institutions engaged in the same field. In the development of this industrial village, the cooperative also responsible for training-related skills training, management training that be related to raw materials, process and marketing management. Additionally institution / cooperative has the obligation to make the mental-spiritual development continually to forming a small-to-medium businesses that has religious character.

Earning Increasing Projection

From the results of the survey the output of the value of the selling products on the market, it can be projected the increasing income of the artisans as follows

:

Table 1. Earning Increasing Projection

Name of Materials	Process that happen now	Earning Value	Adding Value Process	After Adding Value Process	Adding Value Potency
Used tires	Sold to kiln	Rp.1000/ pcs	Belt	Rp. 5000 - Rp. 10.000/ pcs	5x – 10x
			Table and chair	Rp. 30.000 - Rp. 50.000/ pcs	30x-50x
			rubber engine mounting	Rp. 500- Rp. 1000/ pcs (Each tyre = 20 pcs rubber engine mounting)	10x -20x
			Rubber powder	Rp. 10.000- Rp.12.000/kg	5x-6x
Body Plastic	Sold to collectors	Rp.2000/kg	Plastic Powder	Rp. 10000-Rp.14000/kg	5x – 7x
			Kid Toys	Rp.30.000–Rp.50.000/ buah	15x – 25x
Metal sparepart	Sold to collectors	Rp.4000/kg	Metal Powder	Rp.16.000-Rp20.000/kg	4x – 5x
			Souvenir	Rp.30.000–Rp.50.000/ pcs	7x – 12x

Conclusion

From the analysis it can be concluded that:

- With the process of adding the value obtained at least 4 times.
- With the addition of this value will be obtained:
 - Increase the skills of local communities
 - An increase in the local community and economic movements
 - Waste reduction which is very significant automotive components
- Model-based Development of Rural Industrial waste is very conducive to a more sustainable society.

- Rural Development Model-based on Industrial waste is also encouraging the learning process in the community related to skills training, management and entrepreneurial character of local communities.
- It has been produced based entrepreneurship training modules for the development of rural community development-based industry industrial waste.

Suggestion

- The test should be carried out experts to measure the effectiveness of entrepreneurship training modules based community development that has been compiled.
- The need for the continuation of research activities to test-piloted entrepreneurship training modules based community development that has been compiled and evaluated and repairs in accordance with the conditions contained in the field.
- The need for the continuation of research so as to create community-based entrepreneurship training modules for the development of rural industry development based industrial waste which can be used by all SMEs so as to optimize the process of development of social welfare and dignity.

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