



The Role Of Green Economy In Encouraging Entrepreneurial Innovation Of MSME Coconut Ice Sellers

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Abstract. *The purpose of this study on the Role of Green Economy in Encouraging Entrepreneurial Innovation of MSME's Selling Coconut Ice is to find out how to classify waste that can be processed into something that can be reused and waste that cannot be processed. Coconut ice sellers sometimes do not know how coconut waste can be processed into something that has economic value. Therefore, coconut ice sellers only sell coconut to be made into coconut ice with various variants by providing innovative flavors other than original such as palm sugar flavors, or using flavored syrups. With so many coconut ice sellers today, there is a large amount of coconut waste generated every day. Materials that sometimes cause waste in MSME entrepreneurs selling coconut ice are waste that is not used or discarded such as coconut shells, coconut fibers, syrup bottles, milk cans, and plastic (other waste). This is a problem for traders who have difficulty distributing waste so that it can be processed into something that can be used or useful and has economic value for waste that is reprocessed. To emphasize the environmentally friendly aspects of coconut waste and can increase the attractiveness for consumers to care about their environment regarding the waste. So from the conclusion of this research can emphasize, how important the green economy is in encouraging innovation regarding entrepreneurship in MSME's for coconut ice sellers.*

Keywords: *Role of Green Economy, Coconut Waste Processing, Innovation.*

Abstrak. Tujuan dari penelitian Peran Ekonomi Hijau Dalam Mendorong Inovasi Kewirausahaan UMKM Penjualan Es Kelapa ini adalah untuk mengetahui bagaimana cara mengelompokkan sampah yang dapat diolah menjadi sesuatu yang dapat digunakan kembali dan sampah yang tidak dapat diolah. Penjual es kelapa terkadang belum mengetahui bagaimana ampas kelapa dapat diolah menjadi sesuatu yang memiliki nilai ekonomi. Oleh karena itu, penjual es kelapa hanya menjual kelapa untuk dijadikan es kelapa dengan berbagai varian dengan memberikan inovasi rasa selain original seperti rasa gula aren, atau menggunakan sirup rasa. Dengan banyaknya penjual es kelapa saat ini, maka banyak pula limbah kelapa yang dihasilkan setiap harinya. Bahan yang terkadang menimbulkan pemborosan pada pengusaha UMKM yang menjual es kelapa adalah sampah yang tidak terpakai atau dibuang seperti batok kelapa, serabut kelapa, botol sirup, kaleng susu, dan plastik (sampah lainnya). Hal ini menjadi permasalahan bagi para pedagang yang kesulitan dalam mendistribusikan sampah agar dapat diolah menjadi sesuatu yang dapat dimanfaatkan atau berguna serta mempunyai nilai ekonomis dari sampah yang diolah kembali. Untuk menekankan aspek ramah lingkungan dari limbah kelapa dan dapat meningkatkan daya tarik konsumen untuk peduli terhadap lingkungannya terhadap limbah tersebut. Maka dari kesimpulan penelitian ini dapat menegaskan, betapa pentingnya ekonomi hijau dalam mendorong inovasi mengenai kewirausahaan pada UMKM para penjual es kelapa.

Kata Kunci: Peran Ekonomi Hijau, Pengolahan Limbah Kelapa, Inovasi.

INTRODUCTION

Green economy is an economic activity that does not ignore various environmental aspects, so that it still pays attention to environmental problems around it. In the green economy theory that presents a triple bottom line order that refers to balanced growth and development in the economy on social life and the environment. Green innovation becomes strategically important from time to time, which is focused on how the reduction of environmental damage

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can be resolved due to a company's activities. To preserve the environment from pollution, it is necessary to treat waste properly, the environment has the ability to accept disturbances due to waste pollution. However, this ability is limited, so waste must be treated first before being discharged into the environment. One of the most feared impacts is the decline in environmental quality. This is due to the increasing waste generated from human economic activities. Therefore, waste treatment measures are very important to do, so that the environment is maintained and sustainable

In encouraging innovation in the MSME entrepreneurial sector, including coconut ice sellers. The green economy emphasizes the uses included in the coconut ice making process to be environmentally friendly, thus opening up new opportunities for the development of more efficient and environmentally responsible products and business processes. In the context of coconut ice vending, this could mean the use of organic ingredients, waste reduction, and the implementation of environmentally friendly business practices to create added value for consumers and the environment. The topic of processing as an entrepreneurial innovation in this green economy is a very important issue, because it can change the way people think, especially coconut ice sellers. With an understanding of waste utilization in coconut ice sellers, it can reduce the risk of losses and expenses due to the payment of garbage fees for waste disposal

The reason we took this topic is because the object of research is in the surrounding environment, making it easier for us to get information about the "Role of Green Economy in Encouraging Entrepreneurial Innovation of MSME's Selling Coconut Ice" topic that we have determined. In addition, we also want to know how much the seller can innovate his entrepreneurship, one of which is by utilizing the unused waste.

PROBLEM FORMULATION

1. What is the role of the green economy in encouraging entrepreneurial innovation of MSME's selling coconut ice?
2. How do sellers distribute the coconut waste so that it can be processed appropriately?

RESEARCH OBJCTIVE

This study aims to understand how the green economy encourages entrepreneurial innovation of MSME's selling coconut ice by processing coconut waste, so that it can be reused into useful goods to produce selling value. In essence, researchers want to study this to find out whether coconut ice sellers reuse their waste or not.

THEORETICAL STUDIES

Waste

Waste is the remaining material of production activities that are not reused and can have negative consequences for other living things if not managed properly. Waste is also called waste material that comes from the surrounding environment, nature, or as a result of human activities. Remnants of the production process (waste) can be liquid, solid, or gas. Waste can contain various materials harmful to the environment and human health if not managed properly. Therefore, waste management is very important to maintain environmental cleanliness and human health.

Coconut Waste

Coconut fruit waste is also the residual result of the coconut ice making process. This waste can be in the form of coconut shells, coconut fibers, water, and coconut pulp. Coconut waste has many benefits and is useful in various ways such as raw materials for making crafts, charcoal, and planting media (compost).

MSME

As for the definition of MSME's according to experts, one example is according to Professor David Storey, an expert on business economics with an explanation, MSME is a company that is freely or independently owned and carried out by individuals or together. In this entrepreneurship, there is not much operational scale compared to large or well-known companies.

Innovation

Innovation is a process that produces something that has never existed, is different, or has changes from the previous one. Innovation is in the form of ideas, products, or processes that are considered new. Innovation has the aim of improving quality, facilitating human activities and making things that have not happened before. Innovation is also a change that leads to improvement, and can be implemented through unique ways of doing or providing solutions to the problems they face.

RESEARCH METHODS

This research is a qualitative method using informants. The researchers made informants as key information as well as supporting informants for this survey. Key informants know and have some key information even though they are not directly involved in social relations. The respondents are people who answer questions from researchers either orally or

in writing. Therefore, we use this method qualitatively obtained from interviews with 6 (six) coconut ice sellers located in the culinary center of Sidoarjo Regency.

In this study, the method used is a qualitative method. This research uses 6 (six) informants who come from 6 (six) coconut ice sellers in the culinary center area of Sidoarjo Regency. Where these informants can provide accurate information and are very supportive. Analysis in this study uses data collection from 6 (six) informants which is carried out continuously until completion.

DESCRIPTIVE ANALYSIS TECHNIQUE

This study uses the market price approach method to calculate the economic value of coconut ice vending waste. This approach consists of three methods, namely the productivity approach, the human capital approach, and the opportunity cost approach. This study uses the productivity approach to calculate the economic value of coconut ice seller waste in the culinary center of Sidoarjo district. This is important to help in making policies related to waste management. Information on the economic value of waste can help determine a more efficient waste management strategy. The productivity approach is carried out in several stages, the first of which is data collection. This data collection was carried out by interview to obtain information on the amount and type of waste generated by coconut ice sellers. The second is determining the market price of waste, and the last is the calculation of the economic value of waste. This calculation is done by multiplying the amount of waste by its market price to get the economic value of waste.

$$\text{Value}_{\text{Residue Amount}} = (\text{Residue}_1 \times \text{Cost}_1) + (\text{Residue}_2 \times \text{Cost}_2) + \dots + (\text{Residue} \times \text{Cost}_2)$$

RESULTS AND DISCUSSION

In the era of green economy, entrepreneurs of coconut ice selling MSME's have a great opportunity to innovate and improve competitiveness. Green economy plays an important role in inspiring innovation in coconut waste management for MSME's selling coconut ice. The coconut waste in question is coconut shells, coconut fibers, syrup bottles, milk cans, and plastics that are often considered as garbage. By applying green economy, MSMEs see that this coconut waste can be processed into valuable products and resources. For example, coconut shells can be processed into charcoal, accessories and key chains, while coconut fibers

can be used as planting media. Innovative management of coconut waste can add value to MSME's, both economically and environmentally.

In interviews that have been conducted by researchers on Wednesday, April 17, 2024 to Thursday, April 18, 2024 with a total of 6 (six) sellers interviewed. located next to the highway at the culinary center in Sidoarjo district. All of these traders were willing to be interviewed as many as 6 (six) coconut ice sellers regarding "The Role of Green Economy in Encouraging Entrepreneurial Innovation of Coconut Ice Selling MSME's" who were willing to provide their information from the questions that had been made, as follows:

- 1) Seller's name
- 2) What is the average weight of 1 coconut?
- 3) Do you (the informant) know about the green economy?
- 4) If the fiber and shell waste is resold, what is the price per sack?
- 5) What is the average coconut sales per week?
- 6) What is the average waste of coconut fibers and shells, glass syrup bottles, milk cans, and other waste?

The results of interview quotes from coconut ice sellers who are in the center of the Sidoarjo district area are as follows:

No.	Informant	Informant Name	Result Of Interview With Informants
1.	Informant 1	Mr. Kamto	The average weight of a coconut is approximately 3.2 kg. The seller does not know about the Green Economy. In the processing of coconut waste such as shells used as charcoal and planting media. Average sales per week are 200 coconuts. And the average coconut fiber and shell waste is 300 kg, 1 kg syrup bottle, 1.1 kg milk cans and 1.5 kg of other waste.
2.	Informant 2	Mr. Sulton	The average weight of 1 coconut is 3.2 kg. Informants did not know about the green economy. Coconut waste is processed into charcoal, and planting media. Average sales per week are 180 coconuts and produce 270 kg of coconut fiber and shell waste, 0.6 kg of syrup glass bottles 1.1 kg of milk cans, and 1 kg of other miscellaneous waste.
3.	Informant 3	Ms. Anik	Based on interviews with coconut sellers in Surabaya, the average weight of a coconut is 3.2 kg. The seller was aware of the term "green economy" but did not have a deep understanding of its meaning. Coconut fiber and shell waste is sold back to collectors at Rp 25,000 per kg. On average, 300 coconuts are sold per week, resulting in 450 kg of coconut fiber and shell waste, 1.4 kg of syrup glass bottles, 1.2 kg of milk cans, and 2 kg of other waste.
4.	Informant 4	Ms. Evi	The average weight of a coconut is 3.2 kg. Mr. Darminto is not familiar with the term "green economy". Waste coconut fibers and shells can be resold for IDR 20,000 per sack. The average coconut sales per week is 230 pieces. The average weight of coconut fiber and shell waste is 354 kg, syrup glass bottles 1 kg, milk cans 1 kg, and other waste 1.5 kg.
5.	Informant 5	Mr. Sumali	The average weight of a coconut is 3.2 kg. Mr. Mulyono is not familiar with the term "green economy". Waste coconut fibers and shells are sold for IDR 25,000 per sack and used to make charcoal or planting

			media. The average coconut sales per week is 250 pieces for coconut ice. Coconut fiber and shell waste averages 375 kg, syrup glass bottles 1.6 kg, milk cans 1.1 kg, and other waste 1.6 kg per week.
6.	Informant 6	Mr. Sobirin	The average weight of a coconut is about 3.2 kg. He is not familiar with the term "green economy", but knows that coconut fiber and shell waste can be resold at Rp 20,000 per sack. The average coconut sales per week reached 325 pieces, resulting in about 487.5 kg of fiber and shell waste, 1.2 kg of syrup glass bottles, 1.1 kg of milk cans, and 1.3 kg of other waste.

Table 1. Interview Excerpts

Waste is the unused material left over from the production activities of coconut ice sellers in the center. Coconut ice sellers refer to waste as garbage and are not reprocessed or utilized. In other words, waste is also the residue of production from coconut ice sellers. Coconut ice sellers consider waste as garbage so that most sellers just let the waste go without being processed or reused. Waste and garbage are the residual results of a production that comes from the activities of an economy. Sources of waste can be grouped based on reused (can be processed) and not utilized either in processing (not processed) classified from data that has been surveyed through interviews there are data from 6 (six) coconut ice sellers as follows:

No.	Seller	Waste Source (Month)				Amount of Waste
		Coconut Fiber & Shell/Week	Glass Bottle Syrup /Week	Milk Cans /Week	Other /Week	
1.	Mr. Kamto	300 kg	1 kg	1,1 kg	1,5 kg	103,6 kg
2.	Mr. Sulton	270 kg	0,6 kg	1,1 kg	1 kg	92,7 kg
3.	Ms. Anik	450 kg	1,4 kg	1,2 kg	2 kg	154,6 kg
4.	Ms.Evi	345 kg	1 kg	1 kg	1,5 kg	118,5 kg
5.	Mr.Sumali	375 kg	1,6 kg	1,1 kg	1,6 kg	129,3 kg
6.	Mr.Sobirin	487,5 kg	1,2 kg	1,1 kg	1,3 kg	169,1 kg

Table 2. Average Of Waste

Based on the data collected on the amount of waste from coconuts obtained from traders, researchers obtained interview results from coconut ice sellers:

1. The average weight of a whole coconut is 3.2 kg;
2. While the weight of one coconut is not intact (the remaining fibers and coconut shell) with an average of 1.5 kg,
3. For the weight of the amount of coconut ice seller waste in 1 (one) sack, the average is 22.5 kg/day, 157.5 kg/week, and
4. The price of coconut ice vending waste is as low as Rp 5,000/bag

No.	Seller Name	Sales	Waste Income									Overall Total
			Fiber & Coconut Shell/Week		Milk cans / week		Glass Bottle / Week			Miscellaneous Waste		
			@	Total	Total	@	Total	Total	@		Total	
1.	Mr. Kamto	200	1500	300	14	80	1,1 kg	5	200	1 kg	1,5 kg	303,6 kg
2.	Mr. Sulton	180	1500	270	14	80	1,1 kg	3	200	0,6 kg	1 kg	272,7 kg
3.	Ms. Anik	300	1500	270	15	80	1,2 kg	7	200	1,4 kg	2 kg	274,6 kg
4.	Ms. Evi	230	1500	345	13	80	1 kg	5	200	1 kg	1,5 kg	348,5 kg
5.	Mr. Sumali	250	1500	375	14	80	1,1 kg	8	200	1,6 kg	1,6 kg	379,3 kg
6.	Mr. Sobirin	325	1500	487,5	14	80	1,1 kg	6	200	1,2 kg	1,3 kg	491,1 kg

Table 3. Waste Income Per Week

Waste Segregation	
Waste That Cannot Be Treated	Waste That Can Be Treated
1 %	99%

Table 4. Percentage of Waste Grouping

It can be concluded that waste that can be processed is coconut fiber and shell waste, syrup bottles and canned waste while for waste that cannot be processed is included in other waste, including plastic waste. After doing the calculation, it can be concluded that the waste that cannot be processed is 1% and 99% that can be processed.

Descriptive Analysis

The results obtained from interviews on April 17, 2024 to April 18, 2024 obtained from 6 (six) coconut ice sellers in the culinary center located in the sidoarjo district. All traders are willing to be interviewed about this research related to the waste produced by coconut ice sellers as reliable informants. Researchers used economic valuation calculations with the productivity approach method which can obtain the following results:

Where:

$Nilai_{Total\ Residue}$ = Total value of coconut ice sales waste per week in Rupiah

Residue ; 1, 2, ..., n = Average amount of waste generated per week in sacks

Price ; 1, 2, ..., n = Price that waste buyers are able to pay per sack in Rupiah

Description:

Residue = From the amount per sack of coconut fiber and Sell.

Price = This is the price of each Sack or per sack.

Based on the number of coconuts sold,viz:

No.	Seller Name	Residue (Sack)	Price	Selling Value Coconut fiber and Shell
1.	Mr. Kamto	2	IDR 5.000	IDR 10.000
2.	Mr. Sulton	2	IDR 5.000	IDR 10.000
3.	Ms. Anik	3	IDR 5.000	IDR 15.000
4.	Ms. Evi	3	IDR 5.000	IDR 15.000
5.	Mr. Sumali	3	IDR 5.000	IDR 15.000
6.	Mr. Sobirin	4	IDR 5.000	IDR 20.000

Table 5. Calculaton of Total Residual Value

CONCLUSIONS AND SUGGESTIONS

Conclusion

Green economy is an economic model that focuses on the balance between economic development, environmental sustainability, and social welfare. Green economy aims to minimize the negative impact of economic activities on the environment and maximize the economic and social benefits of environmental sustainability.

The impact of the green economy on coconut ice sellers can be both positive and negative. On the one hand, a green economy can drive demand for eco-friendly products, such as coconut ice that uses natural ingredients and recyclable packaging. This can increase the income of coconut ice sellers. On the other hand, the green economy may also increase the cost of coconut ice production, as coconut ice sellers have to use more environmentally friendly ingredients and packaging. Higher production costs may reduce coconut ice sellers' profits.

Waste from coconut ice can be processed into various products, such as:

1. Organic fertilizer: Coconut waste can be processed into organic fertilizer that is rich in nutrients and beneficial for plants
2. Charcoal briquettes: Coconut waste can be processed into charcoal briquettes that can be used as an alternative fuel.
3. Biodiesel: Coconut waste can be processed into biodiesel which can be used as an alternative fuel for vehicles.
4. Activated charcoal: Coconut waste can be processed into activated charcoal that can be used to filter water and air.
5. Handicrafts: Coconut waste can be processed into a variety of handicrafts, such as home decorations, children's toys, and jewelry.

The added value of coconut ice waste is the economic and social benefits that can be obtained from processing coconut ice waste. The added value of coconut ice waste can be in the form of:

1. Increased income: Processing coconut ice waste can be an additional source of income for coconut ice sellers.
2. Job creation: Processing coconut ice waste can create new jobs in the creative economy sector.
3. Reduction of environmental pollution. Processing coconut ice waste can help reduce environmental pollution.
4. Improved company image: Coconut ice seller who process ice waste can enhance their corporate image as an environmentally friendly company.

ADVICE

Coconut ice sellers can attend training on coconut ice waste processing to improve their knowledge and skills in processing coconut ice waste. The government can provide capital assistance and mentoring to coconut ice sellers to help them start a coconut ice waste processing business. The community can support coconut ice sellers who process coconut ice waste by buying their products.

By implementing the green economy and processing coconut ice waste, coconut ice sellers can increase their income, create new jobs, reduce environmental pollution, and improve their corporate image.

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