

Analysis of Industry Potential in Improving the Welfare of Coconut Shell Charcoal Craftsmen in Jember Regency

Farid Wahyudi ^{1*}, Ahmad Sauqi ², Jamaliyah Putri Agustina ³

^{1,2,3} Department of Economics Development, culty of Economics and Business, Institut Teknologi dan Sains
Mandala, Jember, Indonesia

Abstract

Industry refers to activities that process raw materials or semi-finished goods into products with added value, with the aim of generating profit. Coconut shell charcoal is a type of charcoal made from coconut shells that are burned through an incomplete combustion process. The increasing demand for this type of charcoal must also be balanced with the availability of coconut shells. Although this industry faces various challenges such as raw material supply, production techniques, labor, management, and marketing, it remains viable. The objectives of this research are: (1) To identify the development potential of the coconut shell charcoal industry in improving the welfare of craftsmen in Jember Regency. The research method used is descriptive qualitative with a phenomenological study approach. Data analysis techniques employed the assistance of the Nvivo 12 Pro application through four stages: data import, data coding, data visualization, and data extraction. Sampling techniques used purposive sampling and snowball sampling, involving a total of 6 informants. The results of this study indicate that with the availability of raw materials, high market demand, and favorable opportunities, the coconut shell charcoal industry has the potential to remain sustainable and contribute to the economic improvement of craftsmen, particularly in enhancing their welfare.

Keywords: Coconut Shell Charcoal, Potential, Welfare

Corresponding Author:

Farid Wahyudi
(farid@itsm.ac.id)

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1. Introduction

Industry is an activity that processes raw materials or semi-finished goods into products with added value, with the aim of generating profit (Marshal & Siahaan, 2021). As one of the key aspects of national development, the industrial sector is expected to contribute significantly to various areas, including the economy, culture, and society, as well as to drive changes within them (Saniuk et al., 2022). Industry is one of the business activities that plays a role in the economy and has the potential to stimulate economic growth in communities and contribute to improving the national economy (Virjan et al., 2023). Small and medium-sized industries are the primary drivers of national economic growth, as a large portion of national economic growth is supported by the activities of these small and medium enterprises, which have shown an increasing contribution to economic growth year after year (Rahayuningsih, 2017).

The process of industrialization or the development of the industrial sector is an effort to improve community welfare, both in terms of enhancing living standards and achieving a better quality of life (Rahayuningsih, 2017). This is clearly evident in regions with potential for development, where the presence of small industries has an impact on the local economy. One such industry that can boost the community's economy is the production of charcoal from discarded coconut shells. This makes the existence of industry beneficial in creating broad business opportunities. With these job opportunities, people can obtain employment and increase their income, thereby enabling them to meet their basic needs adequately. When these needs are well met, the community can be considered a prosperous one.

Coconut shell charcoal is one of the sectors with great potential for development. It is a type of charcoal made from coconut shells that are burned through an incomplete combustion process. The increasing demand for this charcoal must be matched by a sufficient supply of coconut shells. However, the coconut shell charcoal industry in Jember Regency remains underdeveloped. The lack of prosperity among the craftsmen is evident from the stagnant number of workers and the continued use of traditional tools and methods. Despite facing various challenges such as raw material shortages, production techniques, labor, management, and marketing issues, this industry is still able to survive.

Given these challenges, strategies that focus on the coconut shell charcoal craftsmen in Jember Regency are needed. Considering that many of these craftsmen rely on the coconut shell charcoal industry to meet their economic needs, it is hoped that the industry can improve community welfare and reduce unemployment. Based on this background, the researcher is interested in conducting a thesis study entitled: " Analysis of Industry Potential in Improving the Welfare of Coconut Shell Charcoal Craftsmen in Jember Regency".

2. Methods

The strategic approach used in this study is Phenomenology. Phenomenology is a research strategy in which the researcher identifies the essence of human experiences related to a particular phenomenon (Creswell, 2010). Qualitative research is an approach used to explore and understand the meaning experienced by individuals or groups related to social or human issues (Creswell, 2010). In this study, the approach refers to descriptive qualitative research. Descriptive qualitative research means that the data obtained will be collected and presented directly in the form of descriptions or portrayals of the atmosphere or condition of the object as a whole and as it is, using oral or written words from people or behaviors observed (Moelong, 2010).

The sampling methods used in this study are purposive sampling and snowball sampling. According to Sugiyono (2013), purposive sampling is a technique where data sources are selected based on specific considerations. These considerations may include selecting individuals who are believed to be most knowledgeable about the topic or those who have authority, making it easier for the researcher to explore the object or social situation under study (Sugiyono, 2013).

Additionally, snowball sampling is used. In this method, participants or informants who already have contacts or established relationships use their social networks to refer the researcher to other potential participants who may contribute to the study (Creswell, 2010). The data analysis approach employs Nvivo 12 Pro, software designed for the development, support, and management of qualitative data analysis, with its primary function being effective and efficient data coding. Therefore, coding of research data sources is key to presenting qualitative research data in the form of tables, graphs, or diagrams (Endah et al., 2020).

3. Results and Discussion

Visualization with Word Frequency

Based on the coding data processed from the summary output of the word query, it can be seen that the most frequently appearing words are: "batok" (coconut shell) mentioned 45 times, "arang" (charcoal) mentioned 41 times, and "kelapa" (coconut) mentioned 36 times. The word that appears most often is "batok," dominating the conversation with a frequency of 3.52%. Meanwhile, from the word cloud visualization, the largest words that appear are "arang," "batok," and "kelapa." At a glance, based on the analysis shown in Figure 4.1, several other frequently mentioned words follow, such as: "usaha" (business) mentioned 17 times, "industri" (industry) mentioned 12 times, "ekonomi" (economy) mentioned 12 times, and so on, with some words mentioned only once.

Visualization with Hierarchy Chart on the Theme: Reasons for Working in the Coconut Shell Charcoal Industry in Jember Regency

Based on the coding data processed through the hierarchy chart on the theme "Reasons for Working in the Coconut Shell Charcoal Industry," involving 6 informants who are coconut shell charcoal craftsmen, the main findings through the visualization are as follows: The answer with the highest correlation is **"Prospect of Profit"**, chosen by 5 out of 6 informants, indicating that profit is the primary reason craftsmen work in this industry. Other reasons with strong correlations are **"Few Competitors"** and **"Large Market Opportunity,"** each selected by 4 informants, showing that low competition and significant market potential are also important factors in the sustainability of the coconut shell charcoal business. The fact that there are still relatively few coconut shell charcoal craftsmen in Jember Regency highlights the strong potential of this industry, supported by informants' responses citing "Few Competitors" and "Large Market Opportunity" as key reasons for working in this sector.



Figure 1. Illustrated Reasons for Working in the Coconut Shell Charcoal Industry

Next, **“High Economic Value”** and **“Abundant Raw Materials”** were mentioned by 3 informants, indicating that economic potential and the availability of raw materials also influence the craftsmen’s decisions. Finally, **“There is Demand”** was mentioned by 2 informants, showing that the presence of market demand also motivates craftsmen to work in the coconut shell charcoal industry. Overall, as illustrated in Figure 4.3 on the theme **“Reasons for Working in the Coconut Shell Charcoal Industry,”** the main driver encouraging craftsmen to work in this industry is the prospect of profit, followed by factors such as low competition, large market opportunities, availability of raw materials, and high economic value.

Visualization with Hierarchy Chart on the Theme: **Economic Welfare in the Coconut Shell Charcoal Industry in Jember Regency**

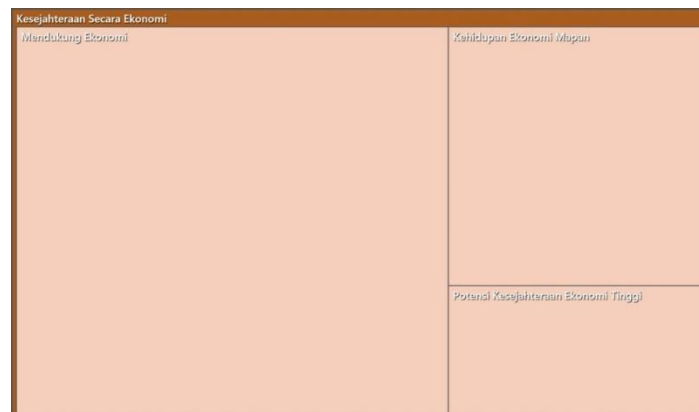


Figure 2. Illustrated Economic Welfare in the Coconut Shell Charcoal Industry in Jember Regency

Based on the coding data processed through the hierarchy chart on the theme **“Economic Welfare”**, involving 6 informants who are coconut shell charcoal craftsmen, the findings from the visualization are as follows: The main factor contributing to the economic welfare of coconut shell charcoal craftsmen is the aspect of **“Supporting the Economy.”** This factor has the highest correlation, with 5 out of 6 informants stating that the coconut shell charcoal industry helps sustain the economic conditions of the craftsmen. Additionally, the factor **“Stable Economic Life”** shows that some craftsmen have achieved economic stability through their coconut shell charcoal business. Meanwhile, **“High Economic Welfare Potential”** indicates a promising prospect for future welfare improvements for the craftsmen. Overall, the theme **“Economic Welfare”** shows a positive impact on the economic wellbeing of the craftsmen, especially in supporting their livelihoods. Although not all craftsmen have reached the same level of economic stability, the potential of the coconut shell charcoal industry to improve economic welfare remains promising. Through this industry, coconut shell charcoal craftsmen are able to meet their needs and grow by producing essential goods. Therefore, the presence of the coconut shell charcoal industry in Jember Regency is expected to absorb more labor and serve as a driver for income distribution and the enhancement of community welfare.

Visualization with Hierarchy Chart on the Theme: Actions to Improve the Coconut Shell Charcoal Business in Jember Regency

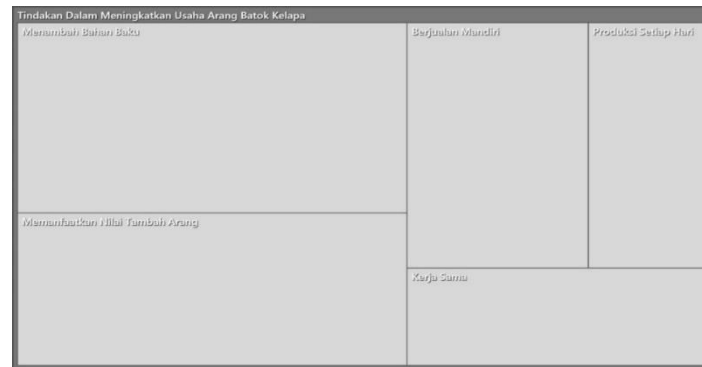


Figure 3. Illustrated Actions to Improve the Coconut Shell Charcoal Business in Jember Regency

Based on the coding data processed through the hierarchy chart on the theme **“Actions to Improve the Coconut Shell Charcoal Business,”** involving 6 informants who are coconut shell charcoal craftsmen, the findings from the visualization are as follows: The primary strategy employed by the craftsmen in Jember Regency is **“Increasing Raw Materials.”** This finding has the highest correlation, with 5 out of 6 informants stating that boosting the supply of raw materials is the main step in developing their business. Additionally, 4 informants emphasized the importance of **“Utilizing the Added Value of Coconut Shell Charcoal,”** indicating that product innovation or quality improvement can support business growth. Two informants also mentioned strategies such as **“Independent Selling”** and **“Daily Production,”** highlighting that independence in marketing—utilizing marketplaces—and consistent production are crucial factors for sustaining the coconut shell charcoal business in Jember. Lastly, **“Collaboration”** was noted as an effort that can aid business development. Some craftsmen have established customers, partners, or collaborations with factories or companies. Overall, the coconut shell charcoal craftsmen apply strategies to improve their business by focusing on raw material availability and enhancing product added value. Furthermore, aspects of independent marketing, sustainable production, and collaboration also play roles in supporting the sustainability and growth of the coconut shell charcoal industry in Jember Regency.

Visualization with Chart

Based on the output diagram above in Figure 4.6, it can be interpreted from the statements of the key persons that the contributions from Pak Deddy and Pak Ardi in the category of the theme "Reasons for Working in the Coconut Shell Charcoal Industry" show the economic impact that motivates artisans to work in the charcoal industry, such as job absorption, high economic value, and economic growth. Certainly, the coconut shell charcoal industry offers quite promising business opportunities when viewed from its market. This becomes a reference for artisans to have a fairly decent income with the potential to improve their living standards. This is also confirmed by the key persons Pak Towil, with 20.15%, and Pak Farisal, with 18.45%, where the coconut shell charcoal industry serves as a livelihood path for them, thus providing a positive impact for the sustainability of labor absorption. In the process, economic growth will be further stimulated by the division of labor system among economic actors. In this regard, Adam Smith views labor as one of the inputs for the production process. The division of labor is the central point in Adam Smith's theory, aiming to increase labor productivity. Therefore, according to Adam Smith, with increased labor productivity, the growth process will occur simultaneously, leading to improved performance in a sector (Sukirno, 1983). In this case, the coconut shell charcoal industry will enhance and accelerate economic growth. Then, the key person Pak Towil on the theme "Economic Welfare" has the highest contribution at 34.84% to the economy. Economically, the coconut shell charcoal industry provides welfare for artisans and the surrounding community due to the efficient utilization of coconut shell waste, supporting a sustainable economy by turning it into high economic value products. Additionally, the presence of this industry improves the standard of living in meeting basic needs such as clothing, food, and education. Prabawa defines welfare as prosperity, happiness, and the quality of human life at the individual, group, or community level (Rosni, 2017).

The coconut shell charcoal industry contributes to the welfare of artisans through increased income, savings, export opportunities, and the utilization of coconut shells into high-value products. This is followed by key persons Pak Deddy at 21.72% and Pak Jamila at 17.31%, reflecting positive impacts on the welfare of artisans, both in terms of increased income and business sustainability. These findings prove that the coconut shell charcoal industry not only provides employment opportunities but also plays a role in improving living standards. As Fahrudin states, a condition is said to be prosperous when a family can meet basic needs for clothing and food, has opportunities to continue education, and obtains financial support that fulfills needs and achieves an

adequate quality of life, thus freeing the family from poverty, ignorance, fear, or worry, leading to a peaceful life both physically and mentally (Rosni, 2017). Then, the key person contribution of Pak Ardi in the theme “Actions to Improve the Coconut Shell Charcoal Business” is 29.80%, and that of Pak Deddy is 22.24%. In this case, several coconut shell charcoal artisans are utilizing the added value of coconut shell charcoal as an additional source of income. The added value includes the utilization of liquid smoke, which offers innovative benefits for farmers.

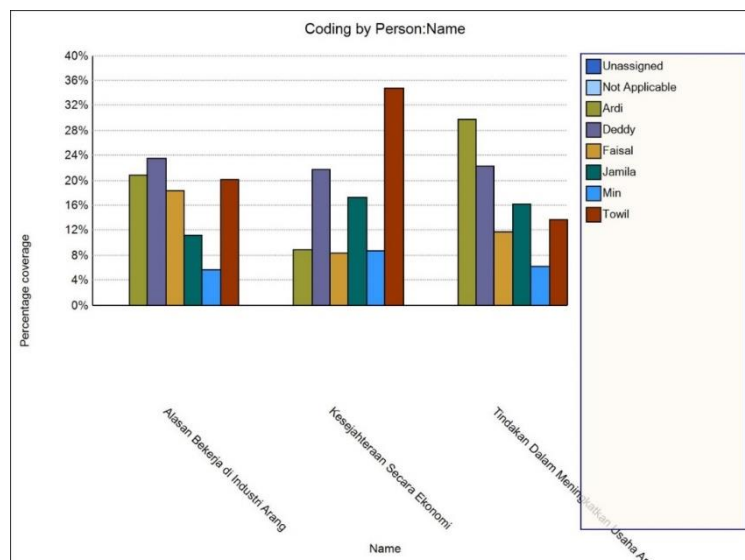


Figure 4. Visualization with Chart

The discovery of liquid smoke that can be used as a pesticide, plant medicine, and for other purposes has had a positive impact. This not only helps improve the standard of living but also provides farmers with knowledge about the need for liquid smoke. This indicates that, in addition to providing welfare for the artisans, the coconut shell charcoal industry is repurposing waste from the burning process—which would otherwise cause air pollution—into high-value liquid smoke. Furthermore, another form of utilization is shown by the businesses of Pak Min and Pak Jamila, who sell ash residue from the burning process to ornamental plant farmers or floriculturists. This contributes positively as an additional income source from coconut shell charcoal. The sustainability of utilizing coconut shell charcoal also requires artisan expertise, as only a few artisans currently make use of liquid smoke or ash in their production process.

4. Conclusion

Based on the research titled “Potential Analysis of the Industry in Improving the Welfare of Coconut Shell Charcoal Artisans in Jember Regency”, the following conclusions can be drawn: The potential of the coconut shell charcoal industry to improve the welfare of artisans in Jember Regency has a positive impact. This is evident from the continuous economic income growth experienced by the artisans, which shows tangible results. The coconut shell charcoal industry demonstrates significant opportunities and great potential for further development. In addition, another positive impact is the transformation of coconut shells—which previously had no market value—into high-value products. The potential of coconut shell charcoal to generate new innovations also creates opportunities for job creation, thereby helping to reduce the unemployment rate in Jember Regency.

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