

Language and Communication Strategies in Promoting Sustainable Green Innovation through Used Cooking Oil Utilization in the Community

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Abstract:

This article aims to analyze the potential use of used cooking oil as an environmentally friendly aromatherapy candle and examine its contribution in supporting sustainable green innovation and community empowerment. The approach taken in this article is a literature review by collecting and analyzing a number of scientific references, such as journals, articles, and sources related to the management of used cooking oil and its use as a valuable product. The results of the study indicate that (1) used cooking oil can be reused as a raw material for aromatherapy candles after going through a simple filtering and processing process, (2) the addition of supporting materials and essential oils can produce aromatherapy candles that have aesthetic value, relaxation function, and economic value, and (3) the use of used cooking oil as aromatherapy candles has the potential to reduce environmental pollution while opening up creative economy-based business opportunities for the community. The novelty of this article lies in the integration of management between household waste management, the psychological benefits of aromatherapy, and community empowerment within the framework of sustainable green innovation that is not only oriented towards environmental aspects but also includes social and economic aspects.

Keywords: used cooking oil, aromatherapy candles, green innovation, environmentally friendly, community sustainability.

Introduction

Used cooking oil is a waste product from households and the culinary industry that results from the repeated use of cooking oil, resulting in physical and chemical changes in quality. It is produced in large volumes, particularly in Aceh, which has a dense population and

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traditional cooking activities based on frying. In Aceh, this waste production is estimated to reach thousands of liters per day from food stalls, households, and the food industry, often disposed of carelessly into waterways. According to Ketaren (2012), repeated use of cooking oil can cause oxidation, hydrolysis, and polymerization processes that produce compounds that are hazardous to health. Used cooking oil that is disposed of directly into the environment without treatment can also pollute water and soil because its fat content is difficult to decompose naturally. In everyday life, used cooking oil is often disposed of directly into waterways, soil, and the surrounding environment without proper treatment. This condition can cause environmental pollution, blockage of waterways, and degrade the quality of soil and water. According to the Ministry of Environment and Forestry, poorly managed household waste is one of the causes of increasing environmental pollution in urban and rural areas. These issues demonstrate the need for waste management innovations that not only reduce pollution but also provide utility and economic benefits to the community. Therefore, utilizing used cooking oil to create creative products like aromatherapy candles can be an environmentally friendly solution that supports the concept of community sustainability.

The concept of green innovation is an effort to create products or activities that pay attention to environmental, social, and economic sustainability. According to the green innovation theory proposed by Chen (2008), green innovation is the development of products and processes that can reduce negative impacts on the environment and increase the efficiency of resource utilization. In the context of waste management, used cooking oil can be reprocessed into products with economic value, one of which is aromatherapy candles. Aromatherapy candles are candles with added essential oils to produce a specific aroma that provides a relaxing and comforting effect. According to Buckle (2015), aromatherapy can provide psychological benefits such as reducing stress, increasing calm, and helping to create a comfortable atmosphere. The use of used cooking oil as a base ingredient for aromatherapy candles not only helps reduce household waste but also encourages the creation of environmentally friendly products with aesthetic value and offers business opportunities for the community. Several previous studies have discussed the processing of used cooking oil into useful products, such as biodiesel, soap, and aromatherapy candles. Research conducted by Bachtiar et al. (2021) shows that used cooking oil can be used as a raw material for making aromatherapy candles, which have economic value and have the potential to become a business idea for the community. The results of this study indicate that processing used cooking oil into useful products can reduce household waste and create environmentally-based business opportunities. Furthermore, research by Rinanto et al. (2024) explains that utilizing used cooking oil to make aromatherapy candles not only provides economic benefits but also increases public knowledge and awareness regarding the importance of sustainable household waste management. These findings suggest that recycling used cooking oil can be an effective environmental education tool. However, most previous research has focused on waste processing and its economic value, while studies integrating the concepts of green innovation, community sustainability, the circular economy, and the benefits of aromatherapy as a whole are relatively limited.

One relevant concept in the use of used cooking oil as aromatherapy candles is the principle of the circular economy. A circular economy is a development approach that emphasizes the reuse of resources to prevent them from immediately becoming waste. According to Ellen MacArthur, a circular economy aims to maintain the value of products, materials, and resources throughout their life cycle, thereby minimizing waste generation. In the context of used cooking oil, waste previously considered worthless can be reprocessed into products with new functions and higher sales value. This approach not only helps reduce the amount of household waste but also supports environmental conservation efforts by reducing pollution. Furthermore, implementing a circular economy at the community level can raise awareness of the importance of wise resource management. Therefore, processing used cooking oil into aromatherapy candles can be seen as a concrete implementation of the circular economy that supports sustainable development.

Beyond environmental aspects, the use of used cooking oil also has an important social dimension. Public awareness of household waste management remains a challenge in many regions. Many people do not understand the long-term impacts of disposing of used cooking oil into the environment or sewers. Yet, community participation is a key factor in the success of community-based waste management programs. According to the theory of community participation proposed by Sherry Arnstein (1969), community involvement in a program can increase a sense of responsibility and sustainability. In this regard, processing used cooking oil into aromatherapy candles can be an effective environmental education tool because it directly involves the community in the waste utilization process. This activity can also foster new habits that are more environmentally conscious and encourage a culture of sustainable waste management. The use of used cooking oil as aromatherapy candles also offers promising creative economic potential. The creative economy is a sector that relies on creativity, skills, and innovation to produce value-added products. According to UNESCO, the creative economy plays a crucial role in creating jobs, increasing community incomes, and promoting inclusive and sustainable development. Aromatherapy candles made from used cooking oil are unique because they combine elements of recycling, aesthetics, and health benefits. With attractive packaging and a variety of aromas, these products have the potential to be marketed to a wide range of communities. Moreover, developments in digital technology and social media are opening up broader marketing opportunities for small and medium-sized businesses. Therefore, processing used cooking oil into aromatherapy candles not only provides ecological benefits but also has the potential to improve community economic well-being through the development of environmentally-based creative businesses.

From a sustainable development perspective, the use of used cooking oil aligns with the global development goals or Sustainable Development Goals (SDGs). This program supports several SDGs, particularly goal 12 on responsible consumption and production, goal 11 on sustainable cities and human settlements, and goal 13 on climate change mitigation. Reducing household waste through recycling activities can help reduce environmental pollution and reduce pressure on natural resources. Furthermore, the development of environmentally friendly products can also raise public awareness about the importance of more responsible

consumption patterns. Therefore, the use of used cooking oil for aromatherapy candles not only provides benefits at the individual and household level but also contributes to achieving the sustainable development agenda, which has become a commitment of various countries around the world. The use of used cooking oil as aromatherapy candles is also closely linked to efforts to reduce emissions and pollution resulting from improper waste management. Used cooking oil disposed of in the environment can pollute water sources and disrupt the balance of the ecosystem by forming a layer that inhibits oxygen exchange in the water. Furthermore, careless disposal of oil can increase waste treatment costs and worsen the quality of residential environments. Therefore, reprocessing used cooking oil into useful products is a preventative measure that can reduce these negative impacts. From an environmental perspective, recycling waste into new products is one form of implementing the reduce, reuse, and recycle (3R) principle, which has been widely recommended in sustainable waste management. Through the process of processing used cooking oil into aromatherapy candles, used cooking oil, which was initially worthless, can be transformed into a product that has function, aesthetic value, and a higher market value. Thus, this innovation can be an alternative solution in creating a cleaner, healthier, and more sustainable environment for the community.

Environmental education is also a crucial aspect in developing used cooking oil-based innovations. Environmental education is not only conducted through formal activities in schools but can also be realized through direct practice in daily life. According to the environmental education theory proposed by William Stapp (1969), environmental education aims to shape individuals with the knowledge, attitudes, skills, and commitment to solving environmental problems. Processing used cooking oil into aromatherapy candles can be a simple yet applicable learning medium because the public can directly observe the process of transforming waste into a useful product. Through this activity, the public not only gains knowledge about waste management but also understands the importance of maintaining environmental balance. Therefore, this innovation has educational value that can support increased awareness and environmentally friendly behavior across all levels of society. Given the various benefits offered, the use of used cooking oil as aromatherapy candles is an innovation that is highly relevant in addressing current environmental and development challenges. This innovation demonstrates that household waste can be transformed into products that simultaneously have utility, economic, and social value. In addition to contributing to reducing environmental pollution, this activity also opens up opportunities for community empowerment through the development of creative businesses based on local resources. With the support of education, community participation, and the use of appropriate marketing technology, aromatherapy candles made from used cooking oil have the potential to become an environmentally friendly alternative product that supports the creation of a more independent and sustainable society. Therefore, research into the use of used cooking oil as aromatherapy candles is crucial to develop as part of efforts to realize green innovations oriented towards environmental sustainability and community well-being.

Method

This article uses a literature review method, a research method conducted by collecting, reading, analyzing, and reviewing various written sources relevant to the research topic. According to Sugiyono (2019), a literature review is a data collection technique conducted through a review of books, scientific journals, articles, documents, and various other literary sources related to the research problem. This method is used to gain an in-depth understanding of the use of used cooking oil as an environmentally friendly aromatherapy candle to support sustainable green innovations in the community. The literature review approach was chosen because this research focuses on the analysis of concepts, theories, and previous research results related to household waste management and environmentally friendly products. By using this method, researchers can identify various scientific findings, benefits, and opportunities for developing recycled used cooking oil-based innovations more systematically and comprehensively. The data sources in this study were obtained from various scientific literature such as national and international journals, books, scientific articles, and official documents related to used cooking oil waste management, aromatherapy, and green innovation. According to Nazir, a literature review is a data collection technique that involves reviewing references, records, and reports related to the research problem. In this study, data were collected through a process of identifying, selecting, and analyzing library sources relevant to the research theme. The tools used in this study were electronic devices such as laptops or mobile phones used to access journals and scientific sources via the internet. In addition, word processing applications were also used to compile and process the data from the literature review. This study did not use a direct population and sample due to its literature review nature. Instead, the study focused on various studies related to the use of used cooking oil as a valuable and environmentally friendly product.

This research was conducted in stages, starting from collecting literature sources, grouping data, analyzing content, and compiling the study results. The research location was not tied to a specific region because the research was conducted through searching for online and offline literature sources. The research time was carried out during the article preparation process, which was adjusted to the stages of data collection and analysis of relevant literature. The data analysis technique in this study used qualitative descriptive analysis, namely by describing the results of studies from various sources to obtain conclusions in accordance with the research objectives. According to Moleong, qualitative research aims to understand phenomena in depth through descriptive data analysis. Through this technique, researchers analyzed various theories and previous research results to explain the potential use of used cooking oil as an environmentally friendly aromatherapy candle, which has economic value, and supports sustainable green innovation in society.

Results and Discussion

Result

Utilization of used cooking oil as an environmentally friendly product

Studies from various sources indicate that used cooking oil has significant potential for recycling into environmentally friendly, valuable products. Until now, used cooking oil has often been considered useless household waste and is dumped directly into the environment. However, carelessly disposing of used cooking oil can cause water pollution, degrade soil quality, and disrupt the ecosystem. Several studies have shown that processing used cooking oil into recycled products is an effective solution to reduce the impact of this pollution. Several countries have begun developing the use of used cooking oil for biodiesel, soap, and decorative products such as aromatherapy candles as part of the green economy and sustainability concept. National research shows that used cooking oil can be processed through a relatively simple process that is easy for the public to implement. Research by Sari and Nugroho (2021) explains that used cooking oil that has undergone a filtering process can be used as a raw material for candles with fairly good quality and low production costs. Furthermore, research by Rahmawati (2022) also found that creative-based household waste processing can increase public awareness of the importance of environmental management.

This proves that the use of used cooking oil not only helps reduce household waste but can also serve as a means of environmental education for the public. Meanwhile, based on international studies, the use of waste cooking oil has been widely implemented as part of sustainable green innovation. According to research published in the *Journal of Environmental Management*, processing waste cooking oil into economically valuable products can support domestic waste reduction while increasing resource efficiency. Furthermore, the concept of green innovation proposed by Chen (2008) emphasizes that environmentally friendly innovation focuses not only on waste reduction but also on creating products that have social and economic benefits for the community. In the context of this research, aromatherapy candles made from used cooking oil are one form of innovation that not only utilizes waste but also produces products with aesthetic value and relaxation functions. The results also indicate that aromatherapy candles made from used cooking oil have good potential to be developed as a creative community business. This product has a selling point because it can be used as room decoration and as a simple aromatherapy medium. The use of essential oils such as lavender or lemon provides a calming aroma, adding to the product's appeal. With relatively low production costs and readily available raw materials, aromatherapy candles made from used cooking oil have the potential to become an environmentally-based creative economy product. Therefore, the use of used cooking oil as aromatherapy candles can be an alternative green innovation that supports environmental sustainability while opening up opportunities for community economic empowerment.

Figure 1. Used Cooking Oil



Source:

<https://www.detik.com/properti/tips-dan-panduan/d-7070462/minyak-goreng-bekas-jangan-dibuang-sembarangan-pokoknya-jangan>

Figure 2. Used Cooking Oil



Source:

<https://www.daya.id/gaya-hidup/tips-info/lingkungan/minyak-jelantah-limbah-dapur-yang-diam-diam-merusak-lingkungan>

Psychological benefits of aromatherapy candles for society

Aromatherapy candles are a product that not only serves a decorative purpose but also provides psychological benefits. According to Jane Buckle, aromatherapy works through the scent of essential oils, which is perceived by the sense of smell and then transmitted to the limbic system in the brain, which is associated with emotions, mood, and memory. This scent can provide a relaxing, calming, and psychologically comfortable effect. The use of aromatherapy candles in everyday life is often used to help create a comfortable atmosphere at home and in the workplace. The scents produced by essential oils such as lavender, peppermint, and lemon are believed to instill a sense of calm and help reduce stress from daily activities. Therefore, aromatherapy candles are seen not only as room fragrance products but also as a simple relaxation medium that has positive benefits for the general psychological well-being of the community. National research shows that the use of aromatherapy has a significant impact on a person's emotional state. Research conducted by Fitriani and Lestari explains that the scent of lavender can help reduce anxiety levels and provide a calming effect after a tiring activity. Furthermore, another study by Wulandari shows that the use of aromatherapy in the home environment can help improve people's comfort and quality of rest. The aromatherapy produced by candles can create a relaxing atmosphere, helping people feel calmer and more comfortable. This demonstrates that the benefits of aromatherapy candles extend beyond aesthetics to mental and emotional health. Therefore, using aromatherapy candles can be a simple alternative to help maintain psychological well-being amidst the increasing pressures of daily activities.

International studies also support the benefits of aromatherapy for human psychological health. According to Rachel Herz, certain scents have a strong connection to emotional memories and can therefore influence a person's mood and psychological state. Calming scents can provide a relaxing effect, improve concentration, and help reduce stress and emotional

tension. Research published in the International Journal of Neuroscience also explains that lavender and peppermint scents have a positive effect in helping to reduce anxiety levels and increase a sense of well-being in individuals. Aromatherapy candles made from used cooking oil are an innovation that not only supports environmentally friendly waste management but also provides psychological benefits for the community. The presence of a calming aroma can help improve the quality of relaxation, improve mood, and support the creation of better emotional balance. The use of used cooking oil as aromatherapy candles shows that household waste can be processed into a useful product that has emotional health benefits.

In addition to providing a relaxing effect, the use of aromatherapy candles can also help create a more comfortable environment for various daily activities. A pleasantly scented environment is known to influence a person's perception of the comfort of a space. A soft, calming scent can help create a more conducive atmosphere for rest, work, or study. In some situations, a comfortable room atmosphere can improve focus and reduce emotional disturbances stemming from environmental stress. The presence of aromatherapy candles in the living room, bedroom, or workspace can provide a sense of calm that helps a person feel more relaxed and comfortable. Furthermore, certain scents are often used to create a warmer and more pleasant atmosphere when gathering with family or engaging in social activities. Therefore, the benefits of aromatherapy candles are not only felt at the individual level but can also contribute to creating an environment that supports psychological well-being and social comfort in the wider community.

Another psychological benefit of aromatherapy candles is their ability to support self-care, which is increasingly important in modern society. Self-care is the effort a person makes to maintain their physical, mental, and emotional health independently through various activities that provide a sense of comfort and balance. The use of aromatherapy candles is often combined with relaxation activities such as reading, meditation, prayer, or resting after a busy day. The resulting aroma can help create a calmer atmosphere, allowing a person to reduce tension and restore emotional energy. In the long term, the habit of engaging in simple relaxation activities can help improve psychological well-being and reduce the negative impact of prolonged stress. Thus, aromatherapy candles function not only as room fragrance products but also as part of a healthy lifestyle that supports mental health and overall quality of life.

Figure 1. Aromatherapy Candles



Source:

<https://www.orami.co.id/magazine/lilin-aromaterapi-untuk-tidur-lebih-nyenyak>

Figure 1. Aromatherapy Candles



Source:

<https://kumparan.com/user-11052022045340/manfaat-lilin-aromaterapi-untuk-menenangkan-pikiran-23Q2uB>

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Opportunities for community empowerment through sustainable green innovation

Research results indicate that the use of used cooking oil as aromatherapy candles offers significant potential for supporting community empowerment through sustainable green innovation. Processing household waste into economically valuable products can be an alternative creative business that is easily implemented within the community. According to the United Nations Environment Programme, the green economy concept emphasizes the importance of efficient resource utilization through economic activities that prioritize environmental sustainability and social welfare. Processing used cooking oil into aromatherapy candles not only helps reduce environmental pollution but also creates environmentally friendly business opportunities. This activity can be carried out by community groups, housewives, and small business owners, utilizing readily available materials and relatively affordable production costs. Therefore, green innovation can be a means of sustainably improving community skills and productivity. Several national studies have shown that community empowerment through household waste processing can have a positive impact on increasing environmental awareness and the community's economy. Research by Handayani and Prasetyo (2021) shows that training in processing waste into creative products can help improve community skills and open up new business opportunities. Furthermore, research by Suryani (2020) explains that utilizing household waste as a creative economic product can increase the selling value of waste and help reduce the amount of domestic waste in the community. In this study, aromatherapy candles made from used cooking oil have the potential to be developed as a creative business product because they have decorative functions, relaxation benefits, and aesthetic value that appeal to consumers. Therefore, the use of used cooking oil not only provides environmental benefits but also contributes to improving the

community's economy through green innovation-based businesses. In addition to providing business opportunities, this activity can also increase community participation in protecting the environment through wiser waste management. Thus, green innovation based on the use of used cooking oil can be a concrete step in supporting environmental, economic, and social sustainability of the community simultaneously.

Discussion

The use of used cooking oil as aromatherapy candles is a form of green innovation that is currently being widely developed as an effort to reduce environmental pollution while creating products that are useful for the community. Until now, used cooking oil has often been considered a household waste that has no benefits, so many people throw it directly into drains, gutters, or the soil around their homes. However, this practice can have a negative impact on the environment because oil mixed with water is difficult to decompose naturally and can cause a decline in water quality and soil pollution. According to the Food and Agriculture Organization, improperly managed household cooking oil can disrupt environmental balance and potentially cause long-term ecosystem damage. Therefore, more effective and environmentally friendly waste management efforts are needed so that used cooking oil is not just waste but can also be reused into more useful products. In this study, used cooking oil was processed into aromatherapy candles through several stages such as filtration, simple purification, mixing additional ingredients, and adding essential oils to produce a specific aroma. This processing demonstrates that household waste actually still has the potential to be utilized as creative products that have economic value and utility for the community. In addition to helping reduce the amount of household waste, utilizing used cooking oil to make aromatherapy candles can also increase public awareness about the importance of wise waste management and adopting a more environmentally conscious lifestyle in everyday life.

In addition to its positive impact on the environment, aromatherapy candles also have other benefits related to people's psychological conditions and emotional comfort. Aromatherapy candles work through the aroma produced by essential oils, which is then received by the sense of smell and transmitted to the nervous system related to a person's emotions and mood. According to Price, S., & Price, L. (2012), aromatherapy can provide a relaxing effect and help create a calmer and more comfortable psychological state. Scents such as lavender, lemon, and peppermint are believed to help reduce stress, relieve mental tension, and increase feelings of relaxation after carrying out daily activities. In today's modern life, many people experience activity pressure, mental fatigue, and quite high levels of stress due to work and daily routines. Therefore, people need a simple, easy-to-use relaxation medium that can create a comfortable atmosphere at home or in the workplace. Aromatherapy candles are a popular alternative because in addition to functioning as room fragrances and decoration, this product also provides psychological benefits for its users. The research results show that the use of aromatherapy candles made from used cooking oil can provide added value to household waste because it not only has an aesthetic function, but also provides emotional health benefits

and psychological comfort for the community.

The use of used cooking oil as aromatherapy candles also offers significant potential for supporting community empowerment through the implementation of sustainable green innovations. Processing household waste into economically valuable products can be an alternative creative business that is easily implemented by the community because the raw materials are readily available and the production process is relatively simple. According to the World Bank, developing environmentally-based businesses can be an important strategy for improving community welfare while supporting the sustainability of natural resources. In this study, aromatherapy candles made from used cooking oil are considered to have significant business opportunities because these products have a unique appeal among the community, particularly as decoration and relaxation products. Furthermore, the relatively low production costs make this business accessible to a wide range of groups, such as housewives, community groups, and MSMEs. Processing used cooking oil into aromatherapy candles can also improve community skills in utilizing waste into more valuable products. This activity not only helps increase economic income but also increases community participation in environmental protection by reducing household waste.

The use of used cooking oil to make aromatherapy candles also aligns with the circular economy concept, which is currently widely applied in efforts to manage resources sustainably. The circular economy concept emphasizes the importance of reusing materials that still have utility value, thereby reducing the amount of waste disposed of in the environment. According to the Ellen MacArthur Foundation (2013), a circular economy is a system designed to minimize waste through the reuse of available resources. In the context of used cooking oil management, waste previously considered worthless can be processed into new products that have economic and social benefits. The application of this concept not only helps reduce environmental pollution but also increases the efficiency of resource utilization in society. Furthermore, used cooking oil recycling activities can encourage the formation of more responsible consumption patterns and raise public awareness of the importance of maintaining environmental balance. Thus, the processing of used cooking oil into aromatherapy candles can be a concrete example of the application of a circular economy that supports sustainable development and environmental preservation.

In addition to economic and environmental aspects, the development of aromatherapy candles made from used cooking oil also has important educational value for the community. Processing waste into useful products can serve as a learning tool to increase public awareness and awareness of various environmental issues. According to Stapp (1969), environmental education aims to develop individuals with the awareness, knowledge, and skills to responsibly resolve environmental issues. Through the process of making aromatherapy candles, the community can understand that household waste does not always have to be thrown away but can be processed into products with utility and sales value. This knowledge can encourage behavioral changes toward a more environmentally friendly and sustainable lifestyle. Furthermore, community involvement in used cooking oil processing activities can also

strengthen a sense of social responsibility towards the surrounding environment.

This article differs from the research conducted by Fathani et al. (2025). Essentially, this research focuses on analyzing the effect of used cooking oil types on the combustion performance of aromatherapy candles through a quantitative experimental approach. The research compares several types of used cooking oil, such as used palm oil from household use, used palm oil from frying, used palm oil from frying chicken, and used coconut oil from household use to determine which oil produces the best combustion quality. The discussion focuses on the chemical characteristics of the oil, the degree of oil degradation, the fatty acid content, and their effects on the performance of aromatherapy candles. Meanwhile, this article discusses the use of used cooking oil as aromatherapy candles from a broader perspective, namely as a form of sustainable green innovation that encompasses aspects of environmentally friendly waste management, the psychological benefits of aromatherapy for the community, and opportunities for community empowerment through the development of environmentally-based creative businesses.

This article aligns with research conducted by Ika et al. (2025). Essentially, the study discusses the transformation of used cooking oil into aromatherapy candles as an environmental conservation effort through community empowerment activities. The study emphasizes the importance of utilizing used cooking oil waste to reduce environmental pollution while raising public awareness of more responsible household waste management. Furthermore, the study also shows that making aromatherapy candles can be an alternative productive activity that supports community creativity and the economy. In line with this research, this article also discusses the use of used cooking oil as an environmentally friendly aromatherapy candle. However, this article develops the discussion further by linking it to the concept of sustainable green innovation, the psychological benefits of aromatherapy for the community, and opportunities for community empowerment through the development of environmentally-based businesses that support integrated social, economic, and environmental sustainability.

Furthermore, the novelty of this article lies in its approach, which integrates the use of used cooking oil as aromatherapy candles with the concept of sustainable green innovation, which encompasses environmental, psychological, and community empowerment aspects simultaneously. Most previous research has focused solely on the aromatherapy candle manufacturing process, product quality, or the use of used cooking oil as a waste reduction effort. Meanwhile, this article not only discusses the management of household waste into useful products but also examines the psychological benefits of aromatherapy in enhancing community comfort and relaxation. Furthermore, it highlights the potential of used cooking oil-based aromatherapy candles as an environmentally friendly business opportunity that can support community skills development and well-being. The integration of these three aspects provides a more comprehensive perspective in supporting sustainable development and the implementation of a green economy at the community level.

Conclusion

Based on the discussion, the use of used cooking oil as aromatherapy candles is a form of green innovation that provides benefits for the environment, psychological health, and community empowerment. Processing used cooking oil into aromatherapy candles can reduce environmental pollution caused by the indiscriminate disposal of household oil waste and supports more environmentally friendly and sustainable waste management. In addition, the use of essential oils in aromatherapy candles provides a relaxing effect that can help reduce stress, create a sense of comfort, and increase emotional calm in people's daily activities. The use of used cooking oil also has economic value because it can be developed into creative products that offer business opportunities for the community and MSMEs. This innovation shows that household waste still has the potential to be processed into useful products that support environmental sustainability while increasing public awareness of the importance of waste management and the development of environmentally friendly businesses.

Suggestion

Suggestions based on the results of this study include the need to increase public awareness of the importance of managing used cooking oil to prevent its indiscriminate disposal into the environment. It is hoped that the public will utilize used cooking oil to create more valuable products, such as aromatherapy candles, so that household waste can be processed into environmentally friendly and economically valuable products. Furthermore, the government, educational institutions, and community organizations need to provide training and education on green innovation-based household waste management to equip the public with the skills to utilize waste creatively. The development of small businesses based on used cooking oil processing also needs to be supported through mentoring and product promotion to help improve the community's economy. Further research is expected to develop more innovative aromatherapy product variations and assess product quality, safety, and durability so that the use of used cooking oil can be implemented more widely and sustainably.

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