



Revitalization of Coffee Husk Waste into Visual Art Works Based on the Local Identity of Wonosobo

Doni Muhammad Farid¹, Muhammad Rivakhul Huda², Ahmad Dwi Satriyo³, Fauza Chairul Athfal⁴, Eni Candra Nurhayati⁵

^{1,3,4,5}Management, Faculty of Economics and Business, Universitas Sains Al-Qur'an, Indonesia

²Informatics Engineering, Faculty of Informatics Engineering, Universitas Sains Al-Qur'an, Indonesia

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ABSTRACT

The growing volume of coffee husk waste worldwide, particularly on the slopes of Mount Sindoro–Sumbing in Wonosobo Regency, presents a major environmental challenge as this agricultural by-product remains underutilized. This study aims to analyze the influence of green product attributes and environmental awareness on consumer purchase intention toward waste-based artwork, specifically through the revitalization of coffee husks into sustainable visual art. Adopting a practice-based approach, the method encompasses conceptual planning, material cleaning and drying, manual crushing to achieve varied textures, and selective application onto canvas using an adhesive medium. The results demonstrate that coffee husk waste can be effectively transformed into a visually compelling human portrait, showcasing clear forms, visual depth, and rich tonal variations without relying on synthetic pigments. Ultimately, this approach impacts the field by establishing a reproducible model for eco-friendly art production that challenges conventional perceptions of waste. By successfully bridging environmental consciousness and creative expression, the final product communicates powerful messages of sustainability while simultaneously opening new green innovation pathways to stimulate the regional creative economy.

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Corresponding Author:

Doni Muhammad Farid

Management, Faculty of Economics and Business, Universitas Sains Al-Qur'an

donimuh7@gmail.com

INTRODUCTION

Environmental sustainability issues have become increasingly prominent alongside the growing volume of organic waste generated by the coffee industry worldwide. Global coffee consumption reached 178.5 million bags in 2024, resulting in a continuous annual increase in coffee husk waste ([International Coffee Organization, 2024](#)). Indonesia's coffee production, which reached 937 thousand tons, also contributes significantly to the generation of coffee husk waste ([Ministry of Agriculture of the Republic of Indonesia, 2024](#)). This waste potential is likewise evident in Wonosobo Regency, a major Arabica coffee-producing area located on the slopes of Mount Sindoro–Sumbing ([Art Basel, 2024](#)).

One strategic effort to reduce waste is through the revitalization of coffee husk waste into art works with aesthetic and economic value. The sustainable art market has grown by 7.2%

annually, indicating increasing public interest in environmentally friendly art works ([Art Basel & UBS, 2024](#)). Environmentally friendly products have become an important factor influencing the purchase intention of modern consumers who are increasingly aware of climate issues ([Rahmawati, 2023](#)). Other studies confirm that green product attributes significantly enhance consumer attraction toward a product ([Lee, 2020](#); [Suki, 2016](#)).

In addition to green product attributes, environmental awareness also encourages consumers to choose products that generate positive ecological impacts. Individuals with high environmental awareness tend to consider the environmental consequences of a product before making a purchase decision ([Kotler & Keller, 2016](#)). Previous research has shown that environmental awareness significantly increases purchase intention toward sustainable products ([Suki, 2019](#)). Similar findings were reported in studies highlighting consumer preferences for art works utilizing recycled materials ([Handayani, 2022](#); [Chu, 2025](#)).

Purchase intention toward waste-based art works emerges from a combination of aesthetic perception, creative value, and sustainability awareness. Consumers demonstrate higher interest in art products that emphasize ecological functions compared to conventional art works ([Pradana, 2021](#)). Other studies indicate that environmentally friendly art works possess expanding market opportunities as they align with the growing green lifestyle trend ([Cho & Kim, 2020](#)). Related research also confirms that recycled-material art products can attract purchase intention through the unique value and sustainability they offer ([Widiastuti, 2022](#)).

Previous studies on green products and environmental awareness have generally focused on daily consumer goods and have rarely examined waste-based art works derived from coffee husk waste, particularly within the context of the regional creative economy ([Nugraha, 2022](#); [Suki, 2019](#)). Furthermore, research on purchase intention toward art works created through the revitalization of coffee husk waste remains limited, including in Wonosobo, which possesses considerable coffee waste potential that has not yet been optimally utilized ([Pradana, 2021](#)).

Therefore, this study is important in analyzing the influence of green product attributes and environmental awareness on purchase intention toward art works made from coffee husk waste as an environmentally friendly innovation that can reduce pollution while simultaneously stimulating the local economy. This integration of environmental responsibility and economic enhancement serves as a critical framework for understanding modern consumer behavior toward sustainable creative industries. Consequently, the findings are expected to offer comprehensive insights into developing effective marketing strategies for eco-friendly art products in emerging regional markets.

METHODS

The method of product creation in this project adopts a practice-based approach, focusing on the transformation of coffee husk waste into a visual art product. This method emphasizes both creative exploration and environmental sustainability by utilizing agricultural waste as the main artistic material.

The first stage is concept development and design planning. At this stage, ideas are developed based on environmental issues related to coffee waste and its potential reuse as an artistic medium. Visual concepts are then translated into preliminary sketches drawn on the canvas

to determine composition, form, and placement. These sketches serve as a guide during the material application process.

The second stage is material preparation. Coffee husk waste is collected and cleaned to remove dirt and unwanted residues. After drying, the coffee husks are crushed manually to produce varied textures and sizes. This variation is intentionally preserved to enhance the aesthetic quality and natural character of the artwork. The prepared material reflects the original organic properties of coffee waste.

The third stage is application and forming process. An adhesive medium is applied to specific areas of the canvas according to the sketched design. The crushed coffee husks are then carefully attached to the surface, following the outlined shapes. This process is conducted gradually to ensure strong adhesion and controlled texture. The artist adjusts the thickness and density of the material to create visual depth and emphasis.

The final stage is finishing and evaluation. After the adhesive dries completely, excess materials are removed, and minor refinements are made to strengthen the composition. The finished product is then evaluated based on aesthetic harmony, structural stability, and its ability to convey environmental values. Through this method, coffee husk waste is revitalized into a visual art product with artistic and ecological significance.

RESULTS AND DISCUSSION

The result of this study demonstrate the practical application of revitalizing coffee husk waste into valuable art products within the creative economy sector. To provide a comprehensive understanding of this sustainable innovation, the empirical findings are presented alongside a detailed examination of the artistic production stages. The following section outlines the structured creative process involved in transforming raw organic waste into aesthetic and economically viable artworks.



Figure1. The preparation of visual concepts through preliminary sketches as a composition guide

The creative process begins with the preparation of the visual concept through preliminary sketches drawn directly on the surface of the canvas. These sketches function as a compositional guide, defining the shapes, spatial arrangement, and visual balance of the artwork. At this stage,

the artist focuses on translating abstract ideas into a concrete visual structure without yet applying materials, allowing flexibility for later adjustments.

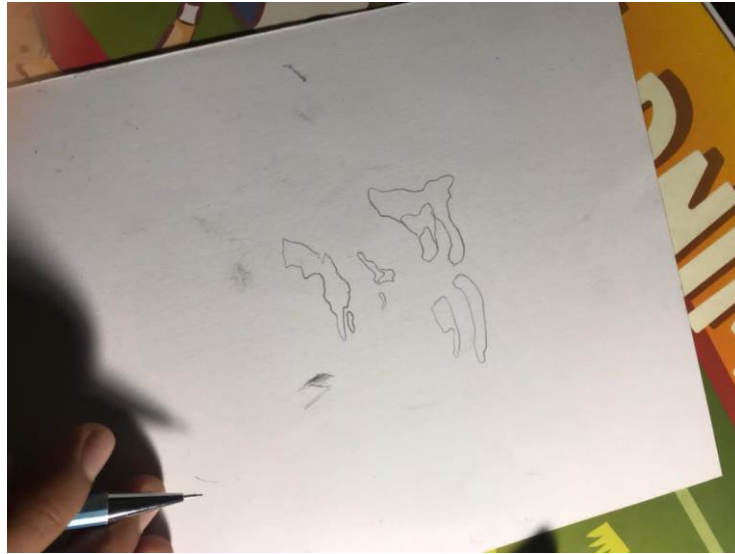


Figure 2. The detailing process of the preliminary sketch to define the visual shapes on the canvas.

The next stage involves the preparation of coffee husk waste as the primary artistic medium. The coffee husks are first cleaned and dried to remove moisture and impurities. Afterward, they are crushed manually to achieve varied textures and particle sizes. This variation in texture is intentionally maintained to enhance the visual depth and organic character of the artwork. The use of untreated natural waste emphasizes the authenticity of the material and highlights its original ecological context.



Figure 3. Application and pressing of crushed coffee husks onto the adhesive-coated sketch areas.

Once the material is ready, an adhesive medium is applied selectively to the sketched areas on the canvas. The crushed coffee husks are then placed and pressed onto the adhesive following the predefined outlines. This process is carried out gradually and carefully to ensure that the material adheres properly while maintaining the desired texture and form. The artist controls the thickness and density of the coffee husk layers to create contrast and emphasize specific visual elements.

The final stage focuses on drying, refinement, and evaluation. After the adhesive has fully set, excess or loose material is removed, and minor adjustments are made to strengthen the composition. This stage allows the artist to assess the harmony between form, texture, and material. Through this method, coffee husk waste is transformed from an agricultural by-product into a meaningful visual artwork, embodying both aesthetic value and environmental awareness.



Figure 4. The final artwork of a human portrait made from coffee husk waste.

The final artwork demonstrates the successful transformation of coffee husk waste into a visual art product with strong aesthetic and conceptual value. The coffee husks are arranged to form a recognizable human portrait, showing that organic waste materials can function not only as texture but also as a primary medium for visual representation. The facial features are clearly defined through the contrast between dense and sparse material placement, allowing the image to remain readable despite the rough and irregular nature of the medium.

The natural color variations of the coffee husks create tonal differences that enhance depth and dimension without the use of synthetic pigments. Areas such as the hair, facial contours, and shadowed sections appear darker and more textured, while lighter areas are left exposed to the canvas, creating visual balance. This technique highlights the expressive potential of natural waste materials and emphasizes their raw, organic character.

From a conceptual perspective, the artwork reflects the idea of revitalization by giving new meaning and function to agricultural waste. Coffee husks, which are typically discarded, are recontextualized as an artistic material capable of conveying form, emotion, and identity. The finished product not only functions as a visual artwork but also communicates an environmental message about sustainability, reuse, and creative responsibility. Overall, this result proves that coffee husk waste can be effectively utilized as an alternative medium in visual art, combining environmental awareness with artistic exploration. The artwork stands as both an aesthetic object

and a symbolic representation of sustainable creative practices. This exploration successfully demonstrates how artistic innovation can give added economic value to agricultural waste. Ultimately, this practice opens up new opportunities for eco-friendly art production that supports the development of the regional creative economy.

CONCLUSION

This project demonstrates that coffee husk waste can be effectively revitalized into a meaningful visual art product through a systematic and practice-based creative process. By utilizing coffee husks as the primary medium, the artwork successfully transforms agricultural waste into an alternative artistic material with strong aesthetic potential. The final result shows that natural textures and color variations of coffee husks can be used to create clear visual forms and expressive depth without the addition of synthetic materials. This approach not only enhances the artistic value of the work but also preserves the organic characteristics of the material, strengthening the connection between art and nature. Furthermore, the project highlights the role of visual art as a medium for environmental awareness. The transformation of waste into art encourages sustainable practices and promotes creative responsibility in addressing ecological issues. Overall, the revitalization of coffee husk waste into visual art proves that environmentally friendly materials can be integrated into contemporary artistic practices while maintaining conceptual depth and visual impact.

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