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Innovation of Tourism Icons through Blender Software Utilizing Natural Fibers in Sukoharjo

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ABSTRACT

Tourism, as an economic sector with significant potential, requires attractions that can be drawn from various aspects, including icons. These icons, rooted in local characteristics and culture, can be transformed into statues, monuments, and other forms of representation. However, sculpture creation poses a challenge for communities lacking adequate knowledge and skills. Natural fibers, such as bamboo, hemp, tree bark, rattan, and straw, are abundant materials that can be utilized for this purpose. Trangsan Village in Sukoharjo Regency, Central Java, is one area with tourism potential that currently lacks icons and branding. This research aims to develop methods for creating sculpture or tourism icons by translating 3D software models into life-sized objects or prototypes. The research stages include observation and data analysis, determination of tourism icons, 3D modeling, and post-modeling by composing fragment images as anatomical references. The subsequent processes involve creating and materializing prototypes, protecting intellectual property rights, and conducting public tests. This study addresses the challenge of icon creation in underdeveloped tourism areas and offers a systematic approach for integrating traditional craftsmanship with modern technology to enhance local tourism branding.

KEYWORDS

Blender 3D Modeling
Natural Fiber
Tourism Icon
Cultural Heritage
Tourism Branding

1. Introduction

The tourism industry in Indonesia holds significant economic potential and has become a priority sector in national development. The government recognizes the substantial contribution of tourism to the country's economic growth and has therefore placed special emphasis on its development. With increasing global competition, the development of innovative and effective marketing strategies has become crucial. A strong brand identity for tourist destinations can significantly influence tourists' decisions, as they are more likely to choose destinations with a positive perception (Chuang, 2015).

Central Java has fewer tourist destinations compared to West Java and East Java. However, the tourism potential in Sukoharjo Regency, Central Java, is gaining attention. The Strategic Plan of the Department of Education and Culture of Sukoharjo Regency for 2021-2026 allocates increasing funds for tourism empowerment each year. A notable destination in this regency is the Rotan Trangsan Tourism Village, known for its rattan production, rattan products, and rattan weaving education (Kurniawan et al., 2023), (Sumarno & Indarto, 2018). The village serves as a center for the rattan industry and aims to evolve into an industrial hub and attractive tourist destination. The tourism industry, as part of the national industrialization goal, seeks to create prosperity by providing employment opportunities, boosting purchasing power, and enhancing the national image as an appealing tourist destination (Dominggus, 2007).

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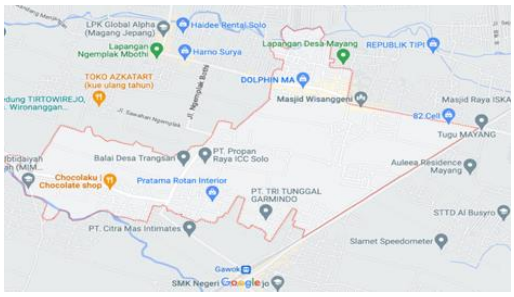

Fig. 1. Map of Trangsan Village (Google Maps)

Efforts to enhance the attractiveness of the tourism village through various programs, activities, spatial arrangements, and area improvements are ongoing. The primary attraction or icon of Trangsan Tourism Village is the puppet-themed rattan statue produced through 3D modeling technology. The creation process of this icon involves analysis, 3D modeling, and field implementation. Key activities in this process include creating a 3D model of the puppet-themed rattan, developing fragment images, designing the frame, and materializing the physical prototype. This research employs a multidisciplinary approach encompassing product design, interior design, and informatics to generate innovative solutions that blend modern technology with local traditions, thereby enhancing the competitiveness of the tourism destination.

Fig. 2. Rattan Craftsmen in Trangsan Village (Google Image)

This research aims to address two main questions: how Blender 3D modeling technology can be effectively used to develop tourism branding strategies for Trangsan Village, and how the utilization of local agricultural products can enhance the image and attractiveness of the tourist destination through visual content. Employing a multidisciplinary approach involving product design, interior design, and informatics, this study seeks to generate innovative solutions that not only integrate modern technology with local traditions but also enhance the competitiveness of local tourism destinations in an increasingly competitive global market.

The development of the tourism industry has become a primary focus in destination tourism branding strategies, especially through social media. Tourism branding not only influences local economic growth but also has significant impacts on output, revenue, employment, and technology (Kuncoro, 2001). The tourism industry, as part of the national industrialization goal, can create prosperity for communities by providing employment opportunities, increasing purchasing power, and enhancing the national image as an attractive tourist destination (Dominggus, 2007). In the digital era, tourism branding development relies on innovation, with a focus on individual creativity, organizational culture, the environment, and socio-economic factor (Nurjanah, 2015). Tourism marketing is the effort undertaken by tourism stakeholders, both private and governmental, to attract more tourists, both international and domestic. The aim of these marketing efforts is to encourage tourists to visit more frequently, stay longer, and spend more money at the destinations they visit (Yoeti, 2002).

In today's digital era, effective branding strategies are crucial for enhancing the appeal of tourist destinations and attracting potential tourists. Branding plays a significant role in distinguishing and

creating the identity of a product, including in the context of tourism(Lestari & Aprilia, 2013). Branding involves a series of efforts to build a unique image, perception, and identity for tourist destinations. Through effective branding, a tourist destination can differentiate itself from its competitors and attract the interest of potential tourists (Foroudi et al., 2016).

One effective tool in developing tourism branding is Blender 3D modeling software. Blender is a powerful open-source software for creating realistic and engaging 3D models. The advantage of Blender lies in its built-in game engine and compositing features, which allow content creators to effectively combine visual elements (Rochman, 2012). In prototype design, 3D animation provides the ability to depict objects in a more realistic and dynamic environment. With greater control over the rotation and movement of objects in three dimensions, 3D animation enables designers to explore various perspectives and interactions among design elements. This allows users to gain a better understanding of how the prototype will look and behave in real-world contexts. As a result, 3D animation in prototype design can help communicate ideas and concepts more effectively to stakeholders and facilitate the product development process (Zebua et al., 2020). In the context of developing tourism branding strategies, Blender provides the ability to create captivating visualizations of tourist destinations that attract the attention of tourists.

Table 1. Comparison of commonly used animation software applications

Comparison of 3D Software	3ds Max	Autodesk Maya	Blender 3D	Softimage XSI	Lightwave 3D
Price (starting from)	$3,500.00 (USD)	$3,500.00 (USD)	Free	$495.00 (USD)	$1,495.00 (USD)
Platform	Windows	Windows, Mac OSX, Linux	Windows, Mac OSX, Linux, FreeBSD	Windows, Linux	Windows, OSX
Usage	Modeling, Animation (Video Game), Lighting, Rendering	Modeling, Animation (Video), Lighting, Rendering, Visual 3D Effects	Animation, Lighting, Modeling, Rendering, Video Game Creation, Visual 3D Effects, Sculpting, Basic Post-Production Video Editing	Modeling, Animation, Video Game Creation, Lighting, Rendering, Visual 3D Effects	Modeling, Animation, Lighting, Rendering, Film, Previz, Television, Video Game Creation

Utilizing local agricultural products, such as rattan, bamboo, and straw, as visual content materials also plays a crucial role in tourism branding strategies. Visual content can convey information quickly and effectively, while local agricultural products provide a sense of authenticity and appeal to tourists(Ashari & Patria, 2021). By combining Blender 3D modeling technology with the utilization of local agricultural products, tourism branding strategies can become more innovative and attractive, creating captivating visual experiences for tourists.

In developing tourism branding strategies, it is essential to consider factors such as individual creativity, organizational culture, environment, and socio-economic aspects. By understanding and integrating these elements, tourist destinations can achieve their branding goals more effectively, enhance their attractiveness, and create memorable experiences for visitors.

2. Method

The methodology employed in this research follows an applied research approach aimed at creating tourism village icons. The design process unfolds through distinct phases: analysis, generation, evaluation, and communication or implementation, as outlined by Howard (Howard et al., 2008).

2.1. Analysis phase

The analysis phase serves as the foundation, encompassing data reduction, data presentation, and drawing conclusions. Data reduction involves sifting through collected data to identify patterns and themes relevant to the research objectives. These insights are then presented through various mediums such as text, tables, and 3D visualizations. Drawing conclusions involves synthesizing significant findings related to the utilization of 3D modeling with Blender for sculpture making. Prior research has highlighted Trangsan Village's unique visual identity, characterized by symbolic representations, particularly wayang characters, which encapsulate the village's essence (Rahmawati & Hakim, 2023).

2.2. Generation phase

In this phase, creative ideas are developed into more concrete design concepts. This process involves exploring various shapes and visual features that can be integrated into 3D models. In the context of this research, the generation phase includes:

1. Initial sketching and storyboarding: Basic ideas are translated into visual narratives, outlining the desired storyline.
2. Design concept development: The most promising concepts are selected and further developed, focusing on both visual aesthetics and technical feasibility.
3. Initial simulation: Preliminary models are crafted using Blender to provide visual and technical validation of the design concepts.

2.3 Evaluation Phase

The evaluation phase marks a critical juncture where developed concepts and models undergo rigorous scrutiny to ensure their alignment with research objectives and quality standards. This phase encompasses:

1. Visual and technical quality testing: Thorough assessments are conducted to evaluate the aesthetic appeal and functional integrity of the 3D models.
2. User testing: Feedback is solicited from potential users or target audiences to gauge their perceptions and responses to the models.
3. Revision and refinement: Based on the feedback received, iterative improvements are made to enhance the 3D models and address any identified shortcomings.

2.4 Communication dan implementation phase

As the research progresses to the communication and implementation phase, the focus shifts towards materializing the envisioned designs and sharing them with the public. Key activities in this phase include:

1. 3D modeling: Developing 3D models with Blender, incorporating agricultural product elements.
2. Fragment Image Creation: Detailing character anatomy and agricultural products, explaining visual elements in detail.
3. Frame Making: Designing prototypes based on the 3D models and fragment images.
4. Prototype Realization: Creating physical prototypes based on the designed models and frames. Implementation and public testing were conducted during the "grebeg penjalin 2023" event in Trangsan Village, Gatak Subdistrict, Sukoharjo Regency.

In summary, this comprehensive methodology facilitates a systematic approach to the creation of tourism village icons, integrating creative ideation, rigorous evaluation, and tangible implementation to realize impactful outcomes. Through each phase of the design process, the research endeavors to capture the essence of Trangsan village's cultural heritage while fostering innovation and community engagement.

3. Result and Discussion

In developing tourism branding strategies, it is important to consider factors such as individual creativity, organizational culture, environment, and socio-economic aspects. By understanding and integrating these elements, tourist destinations can achieve their branding goals more effectively, enhance their attractiveness, and create memorable experiences for visitors.

Tourism marketing involves efforts by both private and governmental stakeholders to attract more tourists, both international and domestic. The aim of these marketing efforts is to encourage tourists to visit more frequently, stay longer, and spend more money at the destinations they visit (Yoeti, 2002). The presence of village icons plays a vital role in preserving cultural traditions, strengthening community cooperation, and actively contributing to development efforts. Village icons serve as a connection point between village residents, the government, and other stakeholders, thereby supporting the creation of community spirit and active citizen involvement in various initiatives (Bima et al., 2024).

After conducting several research steps, including literature review and data collection, the final stage in this research is the experimental phase. The experiment stage aims to produce an artwork in the form of a prototype (Anggakarti & Benyamin, 2021). The experimental stages conducted in this research include:

a. **3D Modeling Creation**: Developing a 3D model using Blender software, incorporating elements of local culture and natural materials.
b. **Fragment Image Creation**: Composing fragmented images that detail the anatomical features of the characters and the use of agricultural products.
c. **Frame Construction**: Designing and constructing the frame for the prototype based on the 3D models and fragmented images.
d. **Prototype Realization**: Creating the physical prototype using natural fibers and other materials, followed by public testing to gather feedback and make necessary refinements.

Through this experimental process, the research aims to create a tourism icon that not only enhances the visual appeal of Trangsan Village but also preserves its cultural heritage and promotes community engagement. The integration of modern 3D modeling technology with traditional craftsmanship provides an innovative approach to tourism branding, potentially boosting the local economy and attracting more visitors to the area.

3.1. 3D Modelling Creation

The first stage of the experiment involves creating a 3D model using Blender software. In this case, the wayang character Bima was chosen as the tourism icon for Trangsan Village. This process involves in-depth research into the history, mythology, and physical appearance of Bima. Through the use of Blender, this 3D model is combined with the previously planned artistic vision.

Extensive research was conducted to understand the historical and mythological background of Bima, a prominent figure in the Mahabharata. Bima is known for his strength and bravery, often depicted with a muscular build and distinctive facial features in traditional Javanese wayang. The collected data on Bima's appearance, attire, and symbolic attributes formed the basis for creating an accurate and culturally resonant 3D model.

Using Blender, the research team began by crafting the basic shape and structure of Bima. This involved creating a wireframe model that captured the overall proportions and stance of the character. The wireframe served as the skeleton upon which further details were added, including muscle definition, facial expressions, and traditional attire.

Fig. 3. Character Bima in wayang (Google Image)

Fig. 4. 3D Modeling of the character Bima using Blender application (Personal Documentation)

The model's complexity gradually increased as more layers of detail were incorporated. Special attention was given to accurately representing Bima's physical attributes and traditional clothing. Fig. 3 shows the traditional depiction of Bima in wayang, which served as the primary reference for the 3D model. This ensures that the digital representation remains true to the cultural and historical context. Meanwhile, Fig. 4 illustrates the 3D model of Bima created using Blender, showcasing the detailed anatomy and features that have been meticulously crafted to match the traditional representation.

The artistic vision for the statue aimed to blend traditional elements with a contemporary design. Collaborations with local artists ensured that the 3D model accurately reflected traditional wayang aesthetics while appealing to modern sensibilities. This stage involved several iterations of the model, with continuous feedback and refinement to achieve the desired balance between tradition and innovation.

The creation of the 3D model is a critical step that bridges traditional cultural elements with modern technology. The detailed and accurate representation of Bima not only preserves cultural heritage but also enhances the visual appeal and engagement for a contemporary audience. This model serves as the blueprint for the subsequent stages of prototype construction and public testing.

3.2 Composing Fragmented Images as Anatomy References

After creating the 3D model, the next step is to compose fragmented images that reflect the anatomical details of the character Bima. These images are crucial as they provide accurate references for shaping the physical prototype. The anatomy details, poses, and character expressions are carefully described through these images.

The 3D model created in Blender is divided into smaller, manageable sections or fragments. This process, known as fragmentation, allows for a detailed focus on specific parts of the model, ensuring that each section is accurately represented. Fig. 5 shows the fragmented rattan statue using Blender application, focusing on the upper body. This image highlights the muscle definition and anatomical details that are essential for the physical prototype. Fig. 6 illustrates the fragmented rattan statue focusing on the lower body. This ensures that the leg structure, stance, and other lower body features are precisely captured.

Fragmented images serve as detailed guides for the craftsmen who will create the physical prototype. Each fragment provides a clear and detailed view of the specific anatomical parts, reducing the likelihood of errors during the construction process. These images are crucial for maintaining the proportions, poses, and character expressions as envisioned in the 3D model. They ensure that the physical prototype remains true to the original digital design.

By providing a detailed visual reference, fragmented images help craftsmen accurately reproduce the complex details of the character Bima. This includes muscle definition, facial expressions, and the

intricate details of traditional attire. The use of Blender for fragmentation allows for high precision and control, ensuring that each piece of the statue aligns perfectly when assembled.

The fragmented images bridge the gap between modern digital modeling and traditional crafting techniques. Craftsmen use these images to weave rattan fibers into the iron frame, ensuring that each section matches the detailed design. This integration helps preserve the traditional art of rattan weaving while incorporating the precision and accuracy of modern technology.

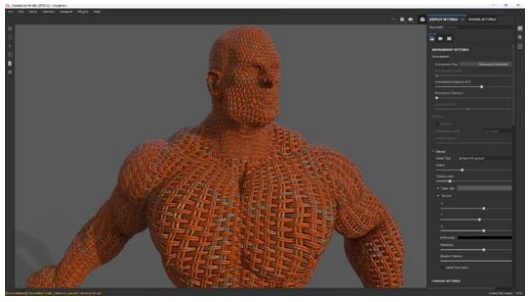

Fig. 5. Fragmented rattan statue using Blender application (upper body) (Personal Documentation)

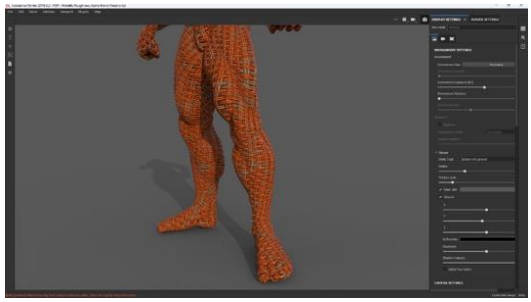

Fig. 6. Fragmented rattan statue using Blender application (lower body) (Personal Documentation)

The use of fragmented images is a critical step in ensuring the accuracy and fidelity of the physical prototype. These images provide a detailed and comprehensive guide that aids craftsmen in replicating the digital model with high precision. This process is particularly important for maintaining the cultural and historical accuracy of the Bima statue, ensuring that it remains true to traditional representations.

3.3 Frame Construction

The frame construction phase is a crucial step in the creation of the Bima statue, ensuring that the final sculpture is structurally sound and visually accurate. This process involves the meticulous crafting of the statue's frame using iron wire, guided by 1:1 projection drawings. The high precision required in this phase is essential to maintain the correct proportions, expressions, and stability of the statue. A sturdy frame is necessary to support the layers of natural rattan fibers that will be added later.

The initial design phase involves creating detailed 1:1 projection drawings of the Bima statue using Blender. These drawings serve as a blueprint for the construction of the iron frame. The iron frame design of the rattan statue (see Fig. 7 and Fig. 8) shows the initial skeletal structure created using Blender application. These images depict the careful planning and layout of the frame, ensuring all anatomical details are accounted for.

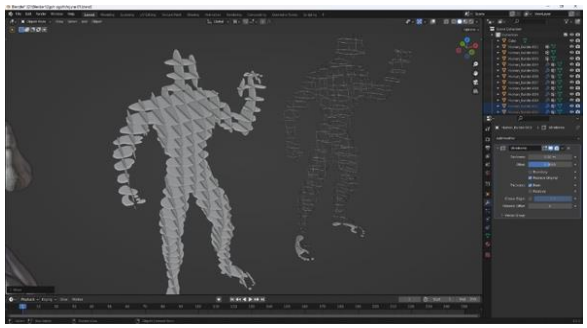

Fig. 7. Iron frame design of the rattan statue using Blender application (Personal Documentation)

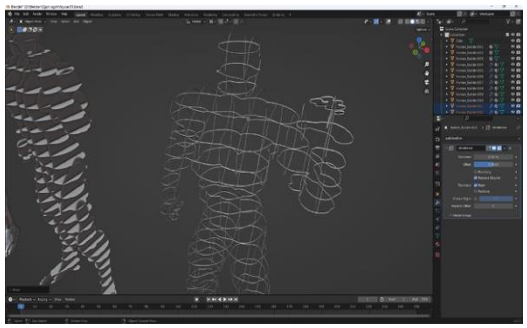

Fig. 8. Iron frame design of the rattan statue using Blender application (Personal Documentation)

The construction begins with bending and shaping iron wires according to the 1:1 projection drawings, requiring precision to match the outlined dimensions and proportions. Fig. 9 shows the weaving process of the frame, where the iron wires are shaped and assembled, involving the securing of joints and intersections to form a robust framework. Fig. 10 highlights these joints, emphasizing the importance of strong connections to ensure the frame's stability and integrity.

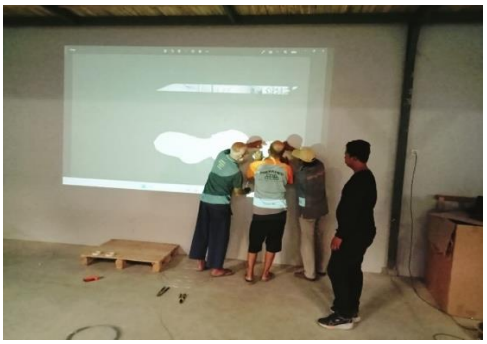

Fig. 9. The weaving process of the frame using the projection of 1:1 scale images as a guide (Personal Documentation)

Fig. 10. Joints of the statue frame made from iron wire (Personal Documentation)

Using the projection of 1:1 scale images as a guide, the iron frame is meticulously aligned to match the designed proportions. This step ensures that the physical frame corresponds accurately to the digital model. The projections help in visualizing the correct placement of each wire segment, maintaining the anatomical accuracy of the statue. The final frame of the statue made from iron wire, showcasing the completed structure before the addition of rattan fibers. The frame stands as a testament to the detailed craftsmanship and precision involved in this phase (see Fig. 11).

Fig. 11. The frame of the statue made from iron wire (Personal Documentation)

One of the significant challenges in this phase is ensuring that the iron frame can support the weight of the rattan fibers and any additional materials. This requires careful calculation and reinforcement at critical points. The use of 1:1 projections aids in minimizing errors and deviations from the design, ensuring that the frame is a faithful representation of the planned statue.

3.4 Prototype Realization

At this stage, the physical prototype of the Bima statue begins to take shape. This process involves close collaboration between the research team and local craftsmen, combining the 3D model, fragmented images, and natural rattan fiber materials. The layers of natural rattan fibers are meticulously placed, using glue or natural adhesive materials, to create a statue that accurately reflects the artist's vision.

Fig. 12. Rattan weaving on the statue frame (Personal Documentation)

Fig. 13. Rattan weaving on the statue frame (Personal Documentation)

The process begins with the careful weaving of rattan fibers onto the iron frame. The craftsmen follow the anatomical details provided by the fragmented images to ensure that the statue's contours and features are accurately represented. The initial stages of rattan weaving on the statue frame (Fig. 12 and Fig. 13) show the detailed craftsmanship involved in shaping the rattan to fit the structure of the frame, ensuring that each layer aligns with the design specifications.

Multiple layers of rattan are added to build up the thickness and texture of the statue. Each layer is adhered using natural glues or adhesives, which provide durability while maintaining the organic look of the materials. In addition to achieving the desired aesthetic, it ensures the sturdiness of the statue can withstand the environmental conditions.

Fine details are added to the statue by carefully manipulating the rattan fibers to create intricate patterns and textures. This stage involves refining the facial features, muscle definition, and other critical elements of the Bima character. Craftsmen use various tools and techniques to achieve the desired level of detail, ensuring that the final product is both visually striking and true to the original design.

The final step in the prototype realization involves the placement of supporting accessories. These elements, such as traditional weapons and attire, are crafted separately and then attached to the statue to complete the visual representation of Bima. Fig. 14 depicts the placement of these supporting accessories on the tourism icon of Trangsan Village. The accessories enhance the statue's overall appearance, adding context and depth to the cultural narrative it represents. This step is crucial in ensuring that the statue not only accurately depicts the character of Bima but also conveys the rich cultural heritage and traditions of Trangsan Village.

Fig. 14. Placement of supporting accessories on the tourism icon of Trangsan Village (Personal Documentation)

3.4 Public Testing

The completed prototype undergoes public testing to gather feedback from various stakeholders, including potential tourists, local residents, and entrepreneurs. This feedback is invaluable as it helps to improve and refine the prototype as well as the branding strategies for Trangsan Village. This process is crucial to ensure that the prototype not only meets visual standards but also provides a deep and meaningful tourism experience for visitors.

The public testing phase involves displaying the Bima statue prototype in various public settings within Trangsan Village. This allows a diverse group of stakeholders to interact with the statue and provide their impressions. Stakeholders include local residents who offer insights based on cultural significance, potential tourists who provide perspectives on the visual appeal and overall experience, and local entrepreneurs who assess the commercial potential of the statue as a tourism icon. A rattan statue created with Blender modelling software is being presented to the public as shown in Fig. 15 and Fig. 16. These images capture the initial reactions and interactions, which provide a visual context for the feed back process.

Fig. 15. The tourism icon of Trangsan Village, a rattan statue created with Blender modeling software.

Fig. 16. Rattan statue created with Blender modeling software.

To reach a broader audience, the statue is mobilized and displayed in various strategic locations throughout Trangsan Village. This mobility ensures that feedback is gathered from different demographic groups and settings. Fig. 17 shows the process of mobilizing the rattan statue, highlighting the logistical efforts involved in transporting and setting up the statue in different locations. This step is essential for maximizing exposure and gathering comprehensive feedback.

Fig. 17. The process of mobilizing the rattan statue (Personal Documentation)

The feedback collected during public testing is systematically analyzed to identify common themes and specific areas for improvement. This analysis focuses on both qualitative and quantitative aspects, such as aesthetic appeal, cultural relevance, and structural integrity. The research team uses this feedback

to make iterative refinements to the prototype, ensuring that it aligns with the expectations and preferences of the stakeholders.

The public testing phase plays a critical role in validating the effectiveness of the Bima statue as a tourism icon. The feedback from local residents provides valuable insights into the cultural authenticity and significance of the statue, ensuring that it resonates with the community's heritage. Potential tourists offer perspectives on the visual appeal and overall experience, which are crucial for attracting visitors and enhancing their engagement with the statue.

Local entrepreneurs assess the commercial potential of the statue, considering its impact on local businesses and its ability to attract and retain tourists. This multi-faceted feedback ensures that the statue not only serves as a cultural artifact but also contributes to the economic development of Trangsan Village.

By considering the feedback from public testing, the research team can refine the prototype to better meet the needs and preferences of all stakeholders. This iterative process helps to create a tourism icon that is not only visually striking and culturally significant but also commercially viable and sustainable.

Through this experimental process, Trangsan Village has successfully created an iconic statue using Blender 3D modeling technology and natural rattan fiber materials. This statue is not only a visual art product but also a manifestation of the collaboration between local tradition and technological innovation. The prototype not only establishes a strong visual presence in Trangsan Village's branding but also offers a unique, captivating, and meaningful tourism experience. By considering feedback from public testing, this prototype will continue to be refined to create sustainable appeal for tourists and advance Trangsan Village tourism to new heights.

4. Conclusion

This research has demonstrated that integrating modern 3D modeling technology using Blender with traditional wayang rattan sculpture art in Trangsan Village, Sukoharjo, Central Java, can significantly enhance tourism branding strategies. The use of Blender software allows local artists to create highly detailed and realistic statues, effectively merging the richness of traditional art with technological advancements.

The quality of the 3D statues produced using natural fiber materials, particularly rattan, is notable for their durability and stunning aesthetics. The application of Blender in traditional art not only preserves local cultural elements but also introduces innovative aspects that can attract visitors. This integration presents a unique opportunity for visual storytelling about the local culture's richness, potentially boosting visitor numbers and tourism revenue, which warrants further evaluation.

Moreover, this research contributes to community empowerment by providing training in 3D modeling technology and the use of natural fiber materials. This training enhances the skills of local artists and expands the possibilities for rattan sculpture art. Evaluating the artists' work before and after the training will help measure skill improvement and the impact of this empowerment initiative.

Beyond the creation of visually appealing art, these statues serve as a bridge connecting the local community, government, and tourists, fostering a sense of community and encouraging active participation in cultural preservation and tourism development. However, there are several areas that need further investigation. Future research should focus on:

a. Economic Impact Assessment: Evaluating the long-term economic benefits of the statues on local tourism, including increased visitor numbers and revenue.
b. Sustainability Practices: Exploring sustainable methods for sourcing and using natural fiber materials to ensure environmental responsibility.
c. Broader Application: Investigating the potential of applying similar techniques to other cultural elements and regions to replicate this success.

In summary, this research not only explores the fusion of tradition and technology but also opens new opportunities for sustainable tourism development and local community empowerment. By

continuously leveraging the potential of art and technology within the local cultural context, Trangsan Village can build a brighter and more competitive future in the global tourism industry. Implementing these findings on a broader scale can serve as a model for other communities seeking to enhance their cultural tourism appeal.

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