

AI INTEGRATION IN VISUAL BRANDING STRATEGIES FOR LOCAL ARTISANS: THE BIORAMA APPROACH

Gilang Ramadhan^{1*}, Muhammad Eka Purbaya² and Ratih Alifah Putri³

^{1,3}Visual Communication Design Study Program, Telkom University, Purwokerto Campus, Jl. DI Panjaitan No.128, Purwokerto 53147, Central Java, Indonesia

²Digital Business Study Program, Telkom University, Purwokerto Campus, Jl. DI Panjaitan No.128, Purwokerto 53147, Central Java, Indonesia

*Email: gilangram@telkomuniversity.ac.id

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Abstract: This study explores the use of artificial intelligence (AI) to enhance the digital branding of local organic artisans through the Design Thinking framework. The research is motivated by the persistent challenges faced by artisans in producing high-quality visual content, such as suboptimal lighting, simple composition, and limited variation, which hinder audience reach and digital appeal. By applying the Design Thinking stages of empathize, define, ideate, prototype, and test, this study collaborated with Biorama and three artisan partners to design and evaluate AI-based solutions, namely Gemini Veo 3 for promotional videos and ChatGPT for product photo enhancement. Testing conducted via the Instagram account @biorama___ in July 2025 revealed measurable improvements. Engagement rates ranged from 11.9% to 13.1%, with average likes between 41–59, comments 5–9, and reach between 499–651 per post. These findings confirm that AI interventions can deliver more appealing, realistic, and brand-aligned visual content for local artisans. The novelty of this research lies in the integration of prompt engineering into community-based digital branding practices, framed within the concept of creative placemaking. The study contributes theoretically to AI-driven branding strategies and offers practical guidance for artisans to strengthen their digital competitiveness.

Keywords: biorama, creative placemaking, design thinking, digital branding, local organic artisans, prompt engineering

Abstrak: Penelitian ini mengkaji pemanfaatan kecerdasan buatan (AI) dalam meningkatkan kualitas branding digital artisan lokal organik melalui pendekatan Design Thinking. Fenomena yang melatarbelakangi studi ini adalah keterbatasan kualitas konten visual yang dihasilkan artisan, yang ditandai dengan pencahayaan suboptimal, komposisi sederhana, serta kurangnya variasi konten yang berdampak pada jangkauan dan daya tarik digital. Dengan menerapkan tahapan Design Thinking yaitu empathize, define, ideate, prototype, dan test, penelitian ini melibatkan Biorama dan tiga mitra artisan lokal untuk merumuskan serta menguji solusi berbasis AI, yaitu Gemini Veo 3 untuk video promosi dan ChatGPT untuk peningkatan kualitas foto produk. Hasil pengujian melalui akun Instagram @biorama___ pada bulan Juli 2025 menunjukkan capaian kuantitatif

yang signifikan. Engagement rate tercatat antara 11,9% hingga 13,1%, dengan rata-rata like berkisar 41–59, komentar 5–9, serta reach antara 499–651 per unggahan. Data ini menunjukkan bahwa intervensi AI mampu menghasilkan konten visual yang lebih menarik, realistis, dan sesuai dengan identitas merek artisan. Kebaruan penelitian ini terletak pada integrasi prompt engineering dalam proses branding digital artisan berbasis komunitas, yang dikontekstualisasikan dalam kerangka creative placemaking. Penelitian ini memberikan kontribusi teoritis dalam pengembangan strategi branding berbasis AI serta kontribusi praktis bagi artisan untuk meningkatkan daya saing digital mereka.

Kata kunci: *artisan lokal organik, biorama, branding digital, creative placemaking, design thinking, prompt engineering.*

INTRODUCTION

In the increasingly competitive digital era, the quality of visual content plays a crucial role in building brand image and attracting consumer attention. This is also a challenge faced by local organic artisans who are part of the Biorama Community in Purwokerto. As a platform connecting producers, consumers, and creative communities, Biorama strives to project a professional image through social media, especially Instagram (@biorama___). However, resource limitations, in terms of photography skills, content variety, and equipment, result in inconsistent visual quality that struggles to compete with products marketed by larger brands. This phenomenon highlights a gap between the potential of local products and the quality of their digital branding strategy.

Several Biorama partners are noteworthy, including Marta Bakery, known for its artisan bread made from natural ingredients; Corporate Gift Pelepah Pisang, which offers unique corporate gifts made from banana fronds with a distinctive Banyumas design; Artisan Soap, focusing on eco-friendly soaps; Badeg, a traditional coconut palm nectar beverage; and Anemoi Aromatherapy Candles, as shown in Figures 1-3. An initial observation of these partners' Instagram posts reveals that the visual quality of their products is limited; the photos tend to be simple, with less-than-optimal lighting and

composition. This negatively impacts the potential reach, engagement, and overall appeal of their content on social media. This situation underscores the importance of innovative solutions that not only improve visual quality but also strengthen the digital branding strategies of local artisans to make them more competitive in an increasingly crowded market.

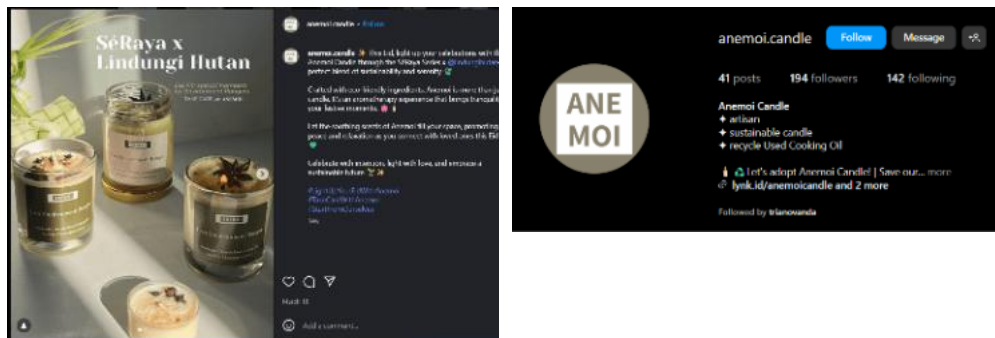


Figure 1. Anemoi candle post and Instagram profile

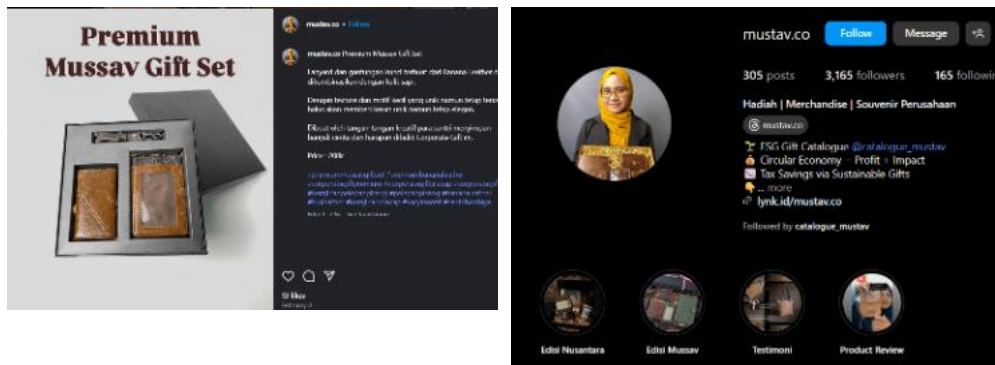


Figure 2. mustav.co post and Instagram profile

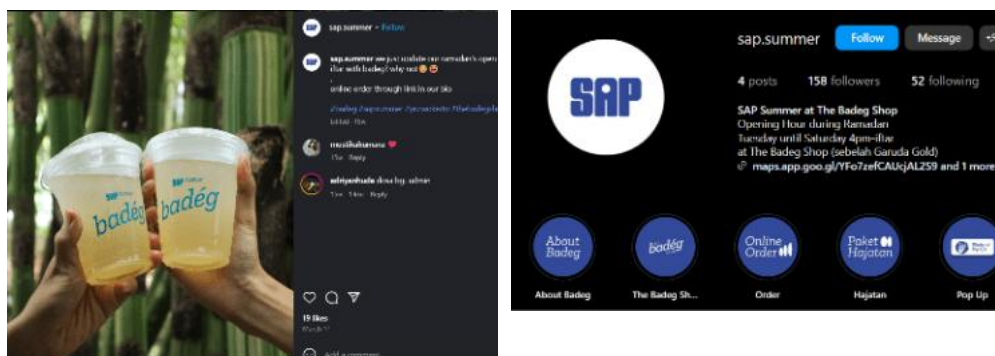


Figure 3. Sap summer candle post and Instagram profile

As technology evolves, artificial intelligence (AI), particularly generative AI, has opened new opportunities for MSMEs to enhance the quality of their visual content. This technology enables the creation of images, videos, and narratives that align with brand identity while also providing a personalized experience for consumers (Al Balushi et al., 2024; Selvakumar et al., 2025; Tuomi, 2023). For local artisans, AI can be a solution for creating creative content variations while reducing production costs. However, the adoption of AI also presents ethical challenges related to potential biases and brand representation (Havale, 2025; Sharma et al., 2024). Therefore, a proper methodological framework is needed to ensure that this technology can be utilized contextually, ethically, and relevant to consumer needs.

In terms of methodology, Design Thinking is a relevant approach because it is user-centered, prioritizing empathy, collaboration, and an iterative process to generate solutions (Azad et al., 2024; Pakarinen et al., 2023). This process consists of five main stages: empathize, define, ideate, prototype, and test (Matsui, 2023; Peng, 2022). Design Thinking has been widely used in various fields, from education (Lin et al., 2024; Patria et al., 2023) and healthcare (Pakarinen et al., 2023) to the public sector (Lewis, 2023), and has proven effective in producing innovative solutions based on user needs. In the context of MSMEs, this approach has also been shown to improve innovation skills and business sustainability (Machfiroh et al., 2023).

This study applies the Design Thinking framework to the digital branding of local organic artisans at Biorama. The empathize stage was conducted through observations of visitor behavior on the @biorama___ Instagram account and interviews to gather their experiences. The results indicated that consumers desire more diverse and higher-quality content, with the hope of encouraging engagement through comments, questions, or even product purchases. The define stage involved analyzing existing product

photos and evaluating the user experience to make improvements that enhance visual appeal. During the ideate stage, various creative concepts were developed using AI-based generative video. Subsequently, the prototype stage was carried out by creating visual content (photos and videos) based on the generated ideas. Finally, the test stage involved a simulated upload of the content to the Instagram account to observe its performance, measured by the number of likes, views, and comments.

Thus, this research aims to address the research gap regarding the use of AI for local artisan branding through the Design Thinking approach. The main contribution of this study lies in the application of a creative process based on consumer empathy and the integration of AI technology. This is expected to result in a digital branding strategy that is adaptive, innovative, and contextual for the local community.

METHODS

The methodology applied in this study uses the Design Thinking approach, which consists of five stages: Empathize, Define, Ideate, Prototype, and Test, as presented in Figure 4. Each stage is designed to ensure the effective integration of understanding user needs and innovation through AI technology in visual branding for local artisans.

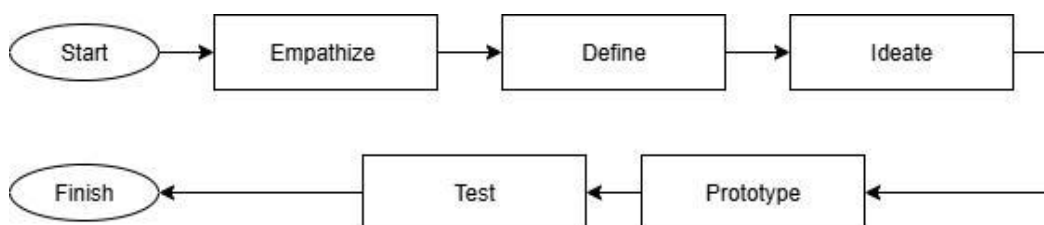


Figure 4. Research flowchart

Applying Design Thinking to Biorama's Digital Branding

This study's methodology uses the Design Thinking approach, which is comprised of six stages: Empathize, Define, Ideate, Prototype, and Test. Each stage is designed to ensure the effective integration of user needs and innovation through AI technology in visual branding for local artisans.

Here is a breakdown of each stage:

1. Empathize

The process begins with observing consumers visiting the @biorama___ Instagram account. Through interviews, it was revealed that they felt a sense of novelty in getting information about artisan products. Respondents expressed a desire for more varied and high-quality product content. This aligns with research stating that a deep understanding of user needs can improve the effectiveness of design and innovation strategies (Patria et al., 2023). It's suggested that observation and interview techniques are crucial at this stage to thoroughly uncover user needs (Fernandes et al., 2022).

2. Define

After understanding user needs, the Define stage involves interpreting existing product photos and discussing the user experience. At this point, it is crucial to identify problems and opportunities from the feedback received to formulate a clear problem statement. As (Lewis, 2023) points out, a user-focused design process requires the team to carefully define the problem before developing a solution.

3. Ideate

The Ideate stage is about generating a large number of ideas. Various concepts are developed using generative video to capture audience attention. This stage is a vital part of Design Thinking where creativity and out-of-the-box thinking are essential. Research supports that collaborative ideation

techniques can lead to more innovative and relevant solutions (Husodo et al., 2022; Y. Wang et al., 2024).

4. Prototype

Once ideas are developed, the Prototype stage involves creating initial models of the designed solutions. These prototypes provide a tangible, visual representation of the proposed ideas and allow the team to iterate based on early user feedback (Dobrigkeit et al., 2021). The prototypes will be in the form of Instagram feeds to test audience reactions and engagement through metrics like likes, views, and comments.

5. Test

Finally, the Test stage is conducted in a real-world environment to collect data and feedback, which is crucial for refining the final product. In this context, testing the design not only makes the product better but also helps to perfect the marketing and branding strategy, as stated in the literature on the importance of user feedback in the design process (Indrianti & Kurniawan, 2022; Larraz-Rábanos, 2021).

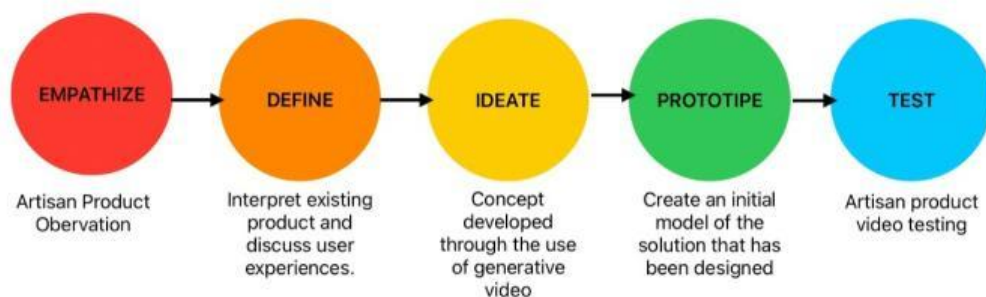


Figure 5. Framework of thinking

By applying Design Thinking, this research aims not only to integrate AI technology into visual branding but also to gain a holistic understanding of how users interact with local artisan products. The framework, as presented

in the figure 5, emphasizes an iterative and participatory approach, which is essential for creating more relevant and impactful solutions.

Thus, the creative process in this study is not merely technical but transformative. It combines aesthetic, collaborative, technological, and cultural dimensions. This approach allows researchers and participants not just to adopt technology but to interpret and adapt it meaningfully within a local context.

RESULTS AND DISCUSSION

Through the Empathize, Define, Ideate, Prototype, and Test workflow, this research positions generative AI as an alternative solution that not only improves visual quality but also delivers more dynamic content variations relevant to audience needs. The following discussion section will detail the results of each stage's implementation, accompanied by a critical analysis of the intervention's effectiveness, a reflection with the artisan partners, and its connection to current academic literature.

Empathize

In this stage, the researchers sought to understand user experiences and the challenges faced by Biorama's local organic artisan partners in producing visual content. This process involved observing Instagram posts and conducting in-depth interviews with Biorama's manager and artisans, such as Marta Bakery and Mustav & Co. The interview results revealed that resource limitations, including less-than-ideal lighting, simple photo compositions, and the absence of professional models, significantly impacted the low quality of the product visuals. This situation directly affected the content's appeal, audience reach, and consumer engagement on social media, all of which are critical in the context of digital branding (Nazir & Lin, 2023; Reneau, 2022).

Define

The define stage serves to synthesize insights from the empathy phase in order to articulate the core problem under investigation. Guided discussions with local artisans revealed that the challenges extend beyond technical limitations in photography, encompassing a lack of content variation and the inability to present products in both aesthetically appealing and informative ways. Based on these insights, the central research problem was formulated as follows: how can the quality and diversity of local artisans' visual content be enhanced through the use of accessible technologies, thereby strengthening digital branding and fostering consumer engagement? Within the design thinking framework, the act of precisely defining the problem is critical, as it lays the foundation for developing relevant and contextually appropriate solutions (Lin et al., 2024; Pakarinen et al., 2023; Torrisi-Steele, 2020).

Ideate

In the ideate stage, the researchers and artisan partners generated as many potential solutions as possible to address the problems that had been defined. Through concept exploration sessions employing a creative approach, one of the most promising ideas was the use of AI technologies, such as Gemini Veo 3 for promotional videos and ChatGPT for product photo enhancement. The application of these technologies is expected to provide more dynamic, realistic, and professional content variations, even under limited resource conditions. Initial success indicators were also established, namely an increase in consumers' positive perceptions of product visuals, which can be measured through social media engagement (W. Wang & Xing, 2024).



Figure 6. Anemoi product photo data



Figure 7. Mustav product photo data



Figure 8. Arkakala product photo data

In the ideate stage, the preparation and generation of promotional content using AI followed a structured procedure. First, product photos were collected from Biorama’s official social media and the accounts of its local artisan organic partners. Only high-quality images that clearly displayed the product, without cropping or blurring, were selected (see Figures 6–8).

Second, these photos were uploaded to Google Drive in a dedicated folder. Access settings were changed to “Anyone with the link can view,”

allowing the links to be embedded into AI prompts as visual references. This step was essential because Veo 3 does not yet support direct image uploads.

Third, the researchers accessed Gemini Advanced, selected Veo 3 under the “Tools” section, and proceeded with prompt engineering to generate promotional videos. Prompts were crafted with high specificity, detailing elements such as model style, atmosphere, tone, color scheme, video duration, camera movements, and narration (if required). Embedding Google Drive links into the prompt ensured that the generated visuals aligned with the actual product design, reducing the risk of irrelevant or imagined outputs.

To further enhance visual storytelling, additional AI image prompting was conducted using artisan products, such as Anemoi aromatherapy candles. Below is an excerpt of the detailed prompt used for this product:

“A young Asian woman sits at a table, centered, with a calm smile and closed eyes. She wears a light beige linen blouse, natural and minimalist. She is lighting a candle in a transparent glass jar with a wooden match, producing a warm golden flame. The jar rests on a wooden coaster surrounded by dried spices (two-star anise, cinnamon sticks, and dried vanilla). The label reads: ‘MEDITI – Lon Environment Bunge’. Additional candles are arranged nearby: one unlit in a small white dish with dried herbs, another lit, and a larger jar candle labeled ‘LUTTI – Lon Environment Bunge’ placed on an olive-green box marked ‘Lemon Grass’. The setting features a beige linen tablecloth, warm natural lighting from the right, with soft golden-hour ambiance. Earth-tone minimalism, natural lifestyle product photography, aromatherapy theme.”

This prompt ensured that the AI-generated visuals not only captured the product’s aesthetic qualities but also communicated the branding values of

natural, mindful living associated with local artisan organic aromatherapy products.

Finally, the generated outputs were downloaded and prepared for dissemination. The videos and images were optimized for social media formats such as Instagram Stories, Reels, and TikTok, thus equipping local artisan organic partners with professional-grade promotional materials designed to enhance consumer engagement.

Prototype

In the *prototype* stage, the researchers focused on generating both images and videos as visual outputs using AI-based tools. As illustrated in Figure 9, the generated images feature products from three local artisan organic partners: SAP (left), Anemoui (center), and Mustav (right). These images were produced through the combined use of **Gemini Veo 3** for video generation and **ChatGPT** for image refinement, enabling the creation of professional-grade visual materials despite limited resources.

The generated content was then prepared for dissemination on Biorama's official Instagram account (@bioramaa___) to assess audience engagement and responses to the improved visual branding. An example of the display format is shown in Figure 10, where the AI-generated visuals are presented as part of curated Instagram feeds. This step provided a practical way to evaluate user enthusiasm and interaction, measured through likes, comments, and view counts.

The results from this prototyping activity demonstrate that the integration of Gemini Veo 3 and ChatGPT effectively empowers **local artisan organic partners** to produce high-quality and realistic visual content that aligns with their branding needs. More importantly, these tools help overcome key challenges such as the absence of professional models, limited photography expertise, and insufficient equipment. Consequently, the

prototype outputs contribute directly to enhancing the visual appeal and digital presence of Biorama and its artisan partners, fulfilling the primary objective of strengthening their branding strategies through accessible AI technologies.



Figure 9. New generate photo and video product of organic local artisan



Figure 10. View of biorama__ IG platform

Test

In the *testing* stage, this study evaluated the impact of AI-generated visual content on audience engagement through Instagram. Promotional

materials, including images and videos produced with **Gemini Veo 3** and **ChatGPT**, were posted on the official account **@bioramaa** featuring three local artisan organic partners: **Mustav (leather wallet)**, **SAP (badeg drink)**, and **Anemoi (aromatherapy candle)**. Data were monitored for one month (July 2025), focusing on key engagement indicators such as likes, comments, shares, saves, and reach.

The results, summarized in Table 1, reveal noticeable variation across artisans. **SAP (badeg drink)** recorded the highest engagement with 59 likes, 9 comments, and 9 shares, yielding an engagement rate of **13.1%**. This reflects the strong resonance of lifestyle-oriented products with younger audiences on social media. **Mustav (leather wallet)** followed with 41 likes, 5 comments, and 11 shares, producing an engagement rate of **12.6%**. Despite lower absolute numbers, this suggests that niche products may still cultivate proportionally strong engagement from their target audience. Meanwhile, **Anemoi (aromatherapy candle)** achieved 44 likes, 8 comments, and 8 shares, with an engagement rate of **11.9%**, indicating consistent attention for products that emphasize aesthetics and mindful living.

Overall, these findings demonstrate that AI-powered tools enabled local artisan organic partners to create **high-quality, realistic, and brand-aligned visual content** despite limited resources. More importantly, the testing results provide empirical evidence that AI-generated visuals can improve digital branding strategies and foster consumer interaction, supporting previous studies on the transformative role of generative AI in marketing communications (Tuomi, 2023; Selvakumar et al., 2025; Wang & Xing, 2024).

Table 1. Instagram engagement results of local artisan organic partners

Local Artisan Organic	Likes	Comments	Shares	Saves	Reach	Engagement Rate (%)
Mustav (Leather Wallet)	41	5	11	6	499	12.6
SAP (Badeg Drink)	59	9	9	8	651	13.1
Anemoi (Aromatherapy Candle)	44	8	8	9	580	11.9

Source: Personal Documentation

CONCLUSION

This study demonstrates that the integration of artificial intelligence (AI) within the Design Thinking framework provides significant value for enhancing the digital branding strategies of local organic artisans. By applying the five stages, empathize, define, ideate, prototype, and test, the research was able to address artisans' core challenges in producing high-quality and consistent visual content. The findings revealed that AI-based tools, such as Gemini Veo 3 and ChatGPT, successfully improved the aesthetic and professional quality of artisan products, while simultaneously reducing production costs and accelerating content creation.

The results further emphasize that AI adoption, when contextualized through creative placemaking and participatory collaboration, fosters stronger community engagement and empowers local artisans to remain competitive in a saturated digital market. Testing through Instagram engagement analytics showed that AI-generated visuals were effective in drawing audience interest, as reflected in increased likes, comments, and shares across different artisan partners. This indicates that AI-enabled visual branding does not only strengthen aesthetic appeal but also promotes deeper consumer interaction and storytelling aligned with artisan identity.

Despite these contributions, the study also acknowledges certain limitations. The engagement data were collected within a limited observation

period (one month) and on a single social media platform, which may not fully represent long-term behavioral trends. Future research is encouraged to expand the scope by including multi-platform engagement analysis and by developing standardized prompt engineering guidelines tailored for community-based creative industries. Overall, this research highlights that AI-assisted design processes can become a transformative strategy for creative placemaking initiatives, offering both practical solutions and scholarly contributions to the field of digital branding and community innovation.

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