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EXPLORING THE INTERSECTION OF DIGITAL TOOLS AND COMMUNITY EDUCATION AND DEVELOPMENT: THE CASE OF PAYUNG GEULIS IN INDONESIA

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Abstrak

Penelitian ini mengeksplorasi potensi transformatif platform digital dalam memberdayakan pengrajin Payung Geulis di Tasikmalaya, Indonesia. Studi ini menyoroti bagaimana teknologi meningkatkan pendidikan komunitas, pelestarian budaya, dan pengembangan ekonomi, sekaligus menghadapi tantangan yang dihadapi para pengrajin dalam mengadopsi alat digital. Tujuan utama penelitian ini adalah mengevaluasi bagaimana digitalisasi mendukung kelangsungan kerajinan tradisional dan relevansinya di era modern. Pendekatan penelitian kualitatif dengan metode studi kasus digunakan dengan wawancara mendalam dan observasi partisipatif untuk mengumpulkan data dari pengrajin, pemangku kepentingan budaya, dan ahli pemasaran digital. Hasil penelitian menunjukkan bahwa platform seperti Instagram, WhatsApp, dan situs e-commerce memungkinkan pengrajin memperluas jangkauan pasar, melibatkan audiens yang lebih luas, dan mempromosikan warisan budaya melalui narasi inovatif. Temuan utama mencakup peningkatan 40% dalam keterlibatan pelanggan, pertumbuhan signifikan dalam ekspansi pasar, penciptaan lapangan kerja lokal, dan penguatan kolaborasi jaringan komunitas.

Kata kunci*: Platform digital, Payung Geulis, pelestarian budaya, pendidikan masyarakat.*

Abstract

This study explores the transformative potential of digital platforms in empowering Payung Geulis artisans in Tasikmalaya, Indonesia. It examines how technology enhances community education, cultural preservation, and economic development, while addressing the challenges artisans face in adopting digital tools. The primary aim is to evaluate how digitalization sustains traditional crafts and promotes their relevance in contemporary contexts. A qualitative research approach with case study method was employed, utilizing in-depth interviews and participant observation to gather data from artisans, cultural stakeholders, and digital marketing experts. The study reveals that platforms like Instagram, WhatsApp, and e-commerce sites enable artisans to expand market reach, engage diverse audiences, and promote cultural heritage through innovative storytelling. Key findings include a 40% increase in customer engagement, significant growth in market expansion due to digital marketing strategies such as live streaming and educational content creation, and strengthened community development through the creation of local employment opportunities and collaborative networks.

Keywords: *Digital platforms, Payung Geulis, cultural preservation, community education.*

Introduction

The rapid entanglement of globalization and digital innovation has redefined the contours of cultural heritage preservation, particularly concerning intangible traditions such as indigenous crafts. This transformation has intensified the vulnerabilities of community-based artisanal practices, which are increasingly marginalized by urbanization, industrial replication, and shifting generational interests. Within this milieu, *Payung Geulis*, a hand-painted umbrella deeply embedded in the cultural tapestry of Tasikmalaya, Indonesia, exemplifies the dual identity of traditional craft as both cultural emblem and threatened practice. The *Payung Geulis* artisans, who are predominantly local families preserving this intricate craft passed down through generations, play a critical role in sustaining Indonesia's rich cultural heritage. Its continued relevance is imperiled by diminishing cultural transmission, constrained access to digital markets, and inadequate infrastructure for contemporary heritage engagement.

Scholarly discourses have engaged with this dilemma through a constellation of conceptual frameworks that bridge heritage, community, and technology. Cultural Memory Theory offers a vital lens, articulating the significance of collective remembrance in maintaining both tangible and intangible cultural expressions (Yang & Inkuer, 2024). In a digital context, this theory validates the use of immersive tools such as virtual reality (VR) and 3D scanning as means of democratizing access to heritage and reinforcing cultural literacy. In parallel, Sense of Place Theory accentuates the emotional and symbolic resonance of heritage sites, suggesting that digital immersion can sustain personal and communal affiliations to cultural space (Maulana Anshori et al., n.d.; Yang & Inkuer, 2024). Additionally, Cultural Landscape Theory provides an ecological perspective, urging the integrated documentation of physical and symbolic dimensions of heritage within dynamic sociocultural environments.

Augmenting these perspectives, Reinterpretation and Re-figuration Theory deconstructs static conceptions of authenticity by advocating for participatory, inclusive reinterpretations of heritage. This approach foregrounds the democratization of cultural narratives and the potential of digital heritage to resist colonial and exclusionary legacies (Dekker, 2025a). Closely aligned, the Sustainability Framework stresses the ethical imperative of long-term, environmentally conscious digital strategies facilitated through

multi-stakeholder cooperation (Haris et al., 2023; Paschalidou et al., 2022). Collectively, these theories offer a robust, multidimensional scaffolding through which digital heritage may be understood and mobilized.

Nonetheless, translating theory into practice remains fraught with structural and ethical complications. The commodification and misrepresentation of cultural practices, along with fragmented intellectual property protections, pose considerable risks to artisanal communities operating within digital economies(Clini & Quattrini, 2021; Dekker, 2025a). For *Payung Geulis* artisans, these challenges manifest in unauthorized copying of designs and erosion of cultural meaning, which threaten both economic viability and cultural integrity. Institutional legal frameworks have largely failed to evolve in tandem with the technological shifts, leaving critical gaps in safeguarding traditional knowledge(Haris et al., 2024; Neikova, 2024). Moreover, the homogenizing tendencies of globalized cultural markets further threaten the specificity and contextual integrity of regional heritage(Ölçer Özünel, 2018; Tsyganova & Krichever, 2022). These ethical implications underscore the need for culturally sensitive, community-led approaches to digital heritage that protect artisans' rights and promote equitable participation.

To navigate these tensions, this study mobilizes two interrelated frameworks—Community Education Theory and Asset-Based Community Development (ABCD)—to conceptualize the preservation of *Payung Geulis* within a digitally mediated ecosystem. Community Education Theory, which emphasizes culturally responsive, participatory learning as a vehicle for transmitting traditional knowledge and fostering communal resilience, focuses on empowering artisans as both learners and educators within their communities (Aral, 2023; Rahmat et al., 2024). Meanwhile, ABCD shifts the locus of heritage development from external intervention to endogenous capacity, highlighting the role of indigenous knowledge, craft skills, and social capital in constructing sustainable futures (Green, 2010; Mathie & Cunningham, 2005). Together, these frameworks foreground participatory, culturally grounded development supported by digital innovation. This study aims to explore how Payung Geulis artisans in Tasikmalaya negotiate the opportunities and constraints of digital platforms to preserve, reinterpret, and economically sustain their craft. Specifically, it seeks to answer:

1. How do Payung Geulis artisans utilize digital tools for knowledge dissemination and community education?

2. What challenges and barriers do they face in adopting and leveraging digital technologies?

3. How does digitalization impact cultural preservation, economic empowerment, and community development for Payung Geulis artisans?

By addressing these questions, the research offers a scalable, ethically anchored model for traditional craft revitalization that integrates community participation, cultural integrity, and adaptive technology use. Grounded in the lived realities of artisans, the study contributes an applied framework for sustainable heritage development in digitally convergent contexts, articulating digital heritage as a participatory, inclusive, and transformative space where traditional knowledge is dynamically reimagined for future generations.

Method

This study employed a qualitative approach with a case study method to investigate the transformative role of digitalization in the preservation and empowerment of artisan communities, with a specific focus on *Payung Geulis* artisans in Tasikmalaya, Indonesia. The case study approach was chosen because it allows an in-depth, contextualized exploration of complex socio-cultural, economic, and technological dynamics that shape how artisans adopt and integrate digital tools within their traditional craft practices. This method aligns with the research aim to understand lived experiences and nuanced interactions in a real-world setting, which quantitative or broad survey methods would inadequately capture(Sugiyono, 2019). By focusing intensively on this localized cultural ecosystem, the case study provides rich, detailed insights into both opportunities and challenges in digital heritage preservation (Iswahyudi et al., 2023; Nurhayati, Kurnianta, et al., 2024).

The study engaged 12 purposively selected *Payung Geulis* artisans as informants. Participants were chosen based on three key criteria: (1) active involvement in the production and dissemination of *Payung Geulis* crafts; (2) varying levels of engagement with digital platforms to reflect diverse digital literacy; and (3) willingness to participate and share insights openly. To ensure diversity and capture intergenerational and gender perspectives, the sample included 2 women and 10 men, ranging in age from 25 to 60 years. Informants were categorized into digital literacy groups—beginners, intermediates, and advanced users—based on self-reported familiarity and observed usage of digital tools. This stratification allowed for comparative analysis across different levels of technological

proficiency, enriching understanding of adoption barriers and enablers. Recruitment was facilitated through local artisan networks and community leaders who helped identify potential participants fitting these criteria.

Data were collected using three complementary methods: semi-structured interviews, participatory observations, and document analysis. The semi-structured interviews followed a flexible guide that included open-ended questions designed to elicit detailed narratives on artisans' experiences with digital platforms, challenges faced, strategies adopted, and perceptions of cultural preservation. Examples of questions included: "Can you describe how you use digital tools in your craft process?" and "What difficulties have you encountered in marketing your products online?" Interviews lasted approximately 45-60 minutes each and were conducted in Bahasa Indonesia.

Participatory observations were conducted over six months, with bi-weekly sessions lasting 2-3 hours, allowing direct, immersive observation of artisans' day-to-day interactions with digital tools—such as social media content creation, online customer engagement, and live streaming. Field notes documented contextual factors, behavioral nuances, and emergent innovations. Document analysis involved collecting and reviewing digital artifacts produced by artisans, including social media posts, promotional videos, and educational materials. This data helped triangulate interview and observational findings by providing objective evidence of digital practices and communication styles.

Thematic analysis was employed to systematically process the qualitative data collected from interviews, observations, and document analysis. The analytic process began with open coding, in which raw data were carefully examined to identify significant concepts and recurring patterns. These initial codes were then organized into preliminary categories based on similarities and differences. Through iterative refinement and axial coding, broader themes emerged, including digital adoption, economic empowerment, and cultural preservation. To enhance rigor, multiple researchers independently coded samples of data, and discrepancies were discussed and reconciled through consensus.

Triangulation further bolstered the validity of the analysis by incorporating multiple data sources—interviews, observations, and documents. Constant comparison across these datasets facilitated identification of consistent patterns and highlighted divergent experiences, enriching the analysis. To ensure reliability, detailed documentation of coding procedures and theme development was maintained. A coding manual standardized the

categorization process, minimizing subjective variability. Member checking was conducted by sharing preliminary findings with participants to validate the accuracy of interpretations.

Results and Discussions

This section provides a comprehensive analysis of the findings derived from the empirical data on Payung Geulis artisans research in Tasikmalaya. By incorporating detailed statements from artisans and critical interpretations, the discussion explores how digitalization serves as a transformative force in community education, cultural preservation, and local development, while also addressing the challenges artisans face. This analytical approach is informed by Cultural Memory Theory, Community Education Theory, and Asset-Based Community Development (ABCD), providing a theoretical scaffold that reveals how digital technologies can simultaneously preserve cultural memory, promote participatory learning, and mobilize local assets for sustainable development.

1. Role of Digital Platforms in Community Education

1.1 Knowledge Dissemination through Social Media

Digital platforms such as Instagram, WhatsApp, and Google have fundamentally reshaped how artisans disseminate knowledge about Payung Geulis. These tools allow artisans to highlight the craft's intricate production process, cultural significance, and historical relevance. For example, Instagram analytics revealed that posts featuring the crafting process received 30% more engagement compared to standard product images, confirming audience preference for educational and behind-the-scenes content. One artisan noted, "Sharing step-by-step videos of the umbrella painting not only attracts customers but also helps keep our tradition alive." Similarly, WhatsApp groups have enabled artisans to maintain direct communication with over 500 regular customers, ensuring a steady flow of information about new designs and updates. A participant shared, "Through WhatsApp, I answer customer questions quickly and share stories about the craft, which builds trust and loyalty."

Live streaming on e-commerce platforms like Shopee and Lazada adds another dimension to customer interaction. Data from artisan campaigns show that live sessions increased conversion rates by 25%, as customers valued real-time opportunities to ask questions and view the craftsmanship firsthand. One artisan remarked, "During live streams, customers ask about the meaning behind designs, making the experience educational for them and empowering for us." These interactive features foster trust and provide an

educational experience, bridging the gap between artisans and consumers by offering insights into the craftsmanship behind each piece.

The use of these platforms aligns closely with Cultural Memory Theory, which emphasizes the role of digital media in preserving and sharing collective memories (Yang & Inkuer, 2024). By curating visual narratives and interactive dialogues, artisans engage in practices that keep traditional knowledge active and relevant across time and space. Moreover, these digital interactions embody the emotional and symbolic dimensions highlighted in Sense of Place Theory, as platforms such as Instagram allow artisans to reconstruct and share their spatial and cultural identities with wider audiences, reinforcing local cultural heritage in a globalized context (Sun et al., 2025). For instance, one artisan described Instagram as a digital "cultural home," where the community's heritage and place-based identity are continuously reinterpreted and affirmed.

The transformative potential of digital platforms in community education lies in their ability to bridge cultural and geographic divides, making artisanal knowledge accessible to diverse audiences. Carpenter et al. (2020) argue that such platforms democratize access to cultural knowledge, enabling engagement across socio-economic strata. These tools also align with Shao's (2023) assertion that digital platforms can amplify marginalized voices, positioning artisans as custodians of their cultural heritage. This dynamic parallels findings from other craft communities, such as the Batik artisans in Yogyakarta, where digital storytelling similarly enhanced cultural visibility and market reach, suggesting common patterns in how digital tools empower heritage crafts globally.

However, effective utilization of these platforms requires more than access; it necessitates strategic storytelling. Hauser et al. (2022) highlight how immersive technologies such as augmented reality (AR) can enhance the educational value of cultural content, transforming passive viewers into active participants. For Payung Geulis, integrating AR into digital campaigns could offer audiences a virtual crafting experience, fostering deeper connections with the artisans' heritage. This experiential dimension aligns with Vygotskian principles of learning, where hands-on interaction deepens cognitive engagement (Nurhayati, 2018; Nurhayati & Handayani, 2025; Sarah & Nurhayati, 2024).

The digital engagement of *Payung Geulis* artisans reflects not only Cultural Memory and Sense of Place theories but also aligns closely with **Asset-Based Community Development (ABCD)** and **Community Education Theory**. ABCD emphasizes building on community strengths—such as indigenous knowledge and social networks—to foster

sustainable growth (Mathie & Cunningham, 2005). By actively using digital platforms, artisans amplify their cultural assets and economic opportunities from within, demonstrating self-determined development rather than reliance on external interventions. This mirrors similar successes in other indigenous craft communities, where digital empowerment supports both cultural preservation and economic resilience.

At the same time, the participatory content creation and knowledge sharing exemplify Community Education Theory's focus on culturally responsive, dialogical learning (Aral, 2023). Artisans act as educators and learners within their digital networks, co-creating meaning and sustaining cultural continuity through interactive storytelling. This dynamic reflects Freire's concept of education as an empowering, participatory process, particularly vital for marginalized rural communities. Comparative cases from Southeast Asian craft revitalization initiatives reinforce that combining technological adoption with community-led education is essential for both cultural sustainability and economic vitality. The *Payung Geulis* experience thus offers a nuanced, practical model for digitally mediated heritage innovation.

1.2 Educational Content Creation

Artisans actively produce educational content to engage diverse audiences, including children, parents, and educators. Activities like painting contests and cultural events have become instrumental in introducing younger generations to the craft. For example, a series of community-based painting competitions held in Tasikmalaya attracted over 300 participants. Pre- and post-event surveys indicated a 60% increase in participants' awareness of the cultural significance of Payung Geulis, reflecting the event's educational impact. Similarly, traditional dance performances featuring Payung Geulis as a centerpiece reportedly drew crowds exceeding 500 attendees, fostering communal pride and engagement.

These efforts have effectively sparked intergenerational interest in Payung Geulis, as evidenced by collaborations with local schools where the craft is integrated into extracurricular programs. For instance, a partnership with three primary schools led to Payung Geulis crafting workshops embedded in art curricula, reaching over 200 students annually. One artisan noted, "When children participate in these workshops, they not only learn about the craft but also develop a sense of pride in our cultural heritage." Another added, "The contests and events allow us to educate the younger generation while keeping the tradition alive."

These initiatives reflect the foundational principles of Community Education Theory, which emphasizes inclusive, context-sensitive, and learner-centered educational practices that foster civic identity and cultural sustainability (Nurhayati, Dina, et al., 2024; Rahmat et al., 2024). By embedding the values and knowledge of Payung Geulis into public learning spaces, artisans act as informal educators who mobilize indigenous knowledge systems, ensuring effective intergenerational transmission. This community-centered pedagogy resonates with the dialogical learning frameworks of Paulo Freire (Carr-Chellman, 2016), where education is a co-creative process fostering critical reflection and cultural continuity.

Further amplification of these efforts could be achieved through digital enhancements. Integrating interactive technologies such as augmented reality (AR) or virtual workshops can make these programs more engaging for tech-savvy younger generations. For example, AR applications might allow users to visualize and customize Payung Geulis designs on virtual umbrellas, deepening their appreciation of the craft's intricacies. Collaborations with digital content creators could also extend the reach and impact of these educational initiatives, ensuring the craft's relevance in an increasingly digitalized cultural landscape and addressing challenges faced by similar artisanal communities globally.

From an Asset-Based Community Development (ABCD) perspective, these initiatives mobilize local cultural assets and social capital, transforming traditional knowledge into dynamic learning experiences (García, 2020). This approach contrasts with externally imposed heritage programs, emphasizing endogenous empowerment and sustainability. Moreover, institutional collaborations could provide the structural support necessary to scale these initiatives. Embedding Payung Geulis into local curricula not only sustains traditional practices but also links them to national education goals and civic identity formation. As Samaroudi et al. (2020) argue, integrating cultural heritage into educational systems through digital and experiential learning enhances both access and impact, ensuring heritage is not only preserved but continuously recontextualized and revitalized. This model aligns with successful heritage education programs in other contexts, such as indigenous craft revitalization projects in Southeast Asia and Latin America, where community participation and digital tools synergize to promote cultural sustainability (Lico & Ong, 2018; Underberg-Goode, 2014).

1.3 Impact on Cultural Awareness

The increased visibility of Payung Geulis through social media has significantly expanded its reach, demonstrating the transformative potential of digital platforms in

promoting cultural heritage. Artisans have leveraged tools such as Instagram and Facebook to share detailed stories about the symbolic and artistic significance of Payung Geulis. Metrics from artisan accounts reveal that posts featuring cultural narratives and production processes generate 50% higher engagement compared to standard promotional content, underscoring a clear audience preference for culturally enriched material. One artisan reflected, "When I post the story behind the umbrella designs, I notice much more interaction and messages from people curious about our culture." Artisans also reported a substantial increase in geographic reach, with new orders coming from regions like Bali, Lampung, and NTB—areas previously inaccessible through traditional marketing channels. Sales data indicates a 30% year-over-year growth in customers from outside Tasikmalaya, reflecting the effectiveness of social media in connecting artisans to a national audience.

This transformation is deeply embedded in Cultural Memory Theory, which posits that cultural preservation is sustained through the activation and transmission of collective memory across generations (Yang & Inkuer, 2024). By documenting and disseminating artisanal practices in real time, digital platforms act as living repositories of cultural memory, simultaneously enabling continuity and innovation. An artisan expressed, "Sharing videos of our process keeps our tradition alive and invites new interpretations from younger generations." These efforts also align with Sense of Place Theory, whereby place-based identity is reinforced through symbolic representation. Payung Geulis, in this context, is not merely a physical object but a signifier of cultural geography that becomes re-anchored through virtual landscapes.

Furthermore, the geographic expansion of Payung Geulis' audience—evidenced by the 30% year-over-year increase in orders from regions such as Bali, Lampung, and NTB—illustrates the transformative impact of digitalization on cultural accessibility. Social media thus functions as a bridge over regional divides and actively democratizes cultural participation. Collaborations with cultural historians and influencers have intensified this momentum. For example, a one-month partnership with a heritage-focused influencer led to a fivefold increase in profile visits, showcasing the communicative power of culturally aligned digital alliances.

These outcomes affirm the propositions of Reinterpretation and Re-figuration Theory (Dekker, 2025b), which emphasizes the fluid and co-constructed nature of heritage in digital spaces. By inviting reinterpretations of Payung Geulis through participatory digital platforms, artisans reframe their practice within contemporary discourse while maintaining

cultural authenticity. These collaborations support the sustainability of cultural knowledge by embedding it into broader, multimedia-driven heritage ecosystems, enabling a dynamic interplay of tradition and innovation.

Comparatively, similar initiatives in other indigenous artisan communities—such as the Batik artisans in Central Java—have reported analogous benefits from digital engagement, including expanded market access and enhanced cultural visibility (Sediyono et al., 2016). However, the Payung Geulis case stands out due to its emphasis on immersive digital storytelling and live interaction, which deepen consumer-artisan connections more effectively than static content alone. To further elevate public engagement, future strategies might include co-curated exhibitions with museums, immersive storytelling collaborations leveraging augmented reality, and targeted digital campaigns deeply rooted in cultural symbolism. These actions will further entrench Payung Geulis as both a living tradition and a digitally mediated cultural archive, capable of inspiring a global audience while safeguarding local meaning.

2. Challenges in Adopting Digital Tools

2.1 Limited Digital Literacy

Many artisans face significant difficulties in navigating digital platforms due to limited technical expertise. One artisan explained, "I seek access through resellers and keep learning to understand technical terms." Another shared, "I attended seminars that taught me how to use online platforms and address the challenges of selling online. These programs have been useful, but more advanced training is needed." Data from regional training programs indicate that only 35% of participants reported feeling confident managing digital marketing tools independently after training, highlighting significant gaps in both effectiveness and relevance.

These findings align with Sivathanu's (2019) analysis of technological marginalization, which emphasizes that rural exclusion from the digital economy results from both infrastructural and pedagogical shortcomings. The prevalent one-size-fits-all digital training model often fails in contexts marked by complex social, cultural, and economic realities. Njenga (2018) argues for context-specific, iterative digital capacity-building models, an approach grounded in the principles of Asset-Based Community Development (ABCD), which prioritizes mobilizing indigenous skills, local social capital, and communal learning networks (García, 2020; Mathie & Cunningham, 2005). However,

many current interventions fail to leverage these endogenous capacities, instead reproducing dependence on external actors and generic digital solutions.

Beyond limited digital skills, critical infrastructural challenges severely constrain digital tool adoption. Artisans consistently identify poor internet connectivity and unstable electricity supply as major barriers to effective digital participation. Susanti & Nurhayati (2024) argues that rural digital divides are perpetuated primarily by systemic infrastructural neglect, not simply hardware scarcity. From a pedagogical perspective, the available digital training programs often overlook the socio-cultural contexts of artisans, leading to content and delivery methods that do not resonate with local realities. Many artisans report that training tends to be overly theoretical and technical without integrating indigenous knowledge and lived experiences, which undermines learning outcomes and cultural sustainability (2022). This disconnect risks marginalizing artisans further by failing to position them as co-creators of knowledge in the digital learning process.

Addressing these intertwined challenges requires a fundamental shift in digital inclusion strategies. Technical training alone is insufficient; what is needed are community-engaged, culturally situated, and infrastructure-supported models of education and development. Interventions must be co-designed with artisans, responsive to their lived experiences, and aligned with broader efforts to expand digital infrastructure. This integrated approach resonates with the normative commitments of ABCD and Community Education Theory, offering a pathway to foster autonomy, creativity, and resilience within artisan communities navigating the digitally mediated cultural economy. From the perspective of cultural preservation, digital tools represent key sites for activating and transmitting collective memory, as emphasized by Cultural Memory Theory (Yang & Inkuer, 2024). However, existing digital literacy barriers threaten cultural continuity if artisans are excluded from meaningful participation in digital spaces. Therefore, addressing literacy and infrastructure challenges is not only an economic imperative but also crucial for sustaining intangible cultural heritage.

2.2 Standardization Issues

A lack of standardized pricing and quality benchmarks undermines customer trust and limits market scalability. One artisan stated, "There is no standardization of prices and product quality, which makes it hard for customers to trust what they're buying." In response, some artisans have employed transparency efforts such as sharing detailed production videos and product descriptions to build consumer confidence. However, these

informal measures are insufficient for broader market trust. Empirical data from sales records reveal fluctuating prices for similar products, contributing to consumer hesitation and inconsistent revenue streams. Developing a formal certification system for Payung Geulis products could strengthen consumer confidence and protect the craft's authenticity. Such an initiative, ideally spearheaded by local governments or cultural institutions in collaboration with artisans, would help establish Payung Geulis as a premium artisanal product in domestic and global markets.

From the perspective of Asset-Based Community Development (ABCD), this issue reflects a broader failure to harness and scale the intrinsic strengths of the community. While Payung Geulis artisans possess considerable cultural capital—including generational knowledge, refined technical skills, and an embedded sense of aesthetic and symbolic value—these assets remain economically underutilized due to the absence of formal mechanisms that build trust and consistency in the marketplace (García, 2020; Mathie & Cunningham, 2005). ABCD emphasizes mobilizing internal capacities rather than relying on external imposition; thus, a community-led certification system—developed through participatory design involving artisan groups, cultural institutions, and governance actors—could institutionalize quality assurance while affirming the product's cultural distinctiveness (García, 2020).

Such certification would function not only as an economic signal but also as a conduit for cultural safeguarding. Within the framework of Cultural Memory Theory, standardization anchored in community-defined criteria enables the preservation of intangible cultural elements—rituals, symbols, and narratives—by embedding them within formal institutional practices (Loukil, 2020). Rather than diminishing diversity, such systems reinforce shared memory and ensure the fidelity of traditional practices as they enter increasingly commercialized and globalized markets. Moreover, Reinterpretation and Re-figuration Theory (Dekker, 2025b) reframes standardization as a dynamic negotiation rather than a static prescription. Under this model, certification does not equate to uniformity but provides a structured platform for ongoing dialogue around evolving definitions of quality, innovation, and cultural expression. In this sense, standardization becomes a co-authorship practice—empowering artisans to shape the future of their craft on their own terms. Similar artisan communities in Southeast Asia have implemented participatory quality certification schemes with positive results. For example, the Batik communities in Java established cooperative-led certification to protect design authenticity while enabling innovation, which

boosted consumer trust and expanded market access(Kurniati & Susilowati, 2019). Such comparative cases highlight the feasibility and benefits of community-driven standardization for Payung Geulis artisans.

2.3 Intellectual Property and Plagiarism

Plagiarism remains a pressing concern for Payung Geulis artisans. One artisan shared, "I try to prevent copying by sharing detailed images of the production process and watermarking photos of my designs." While these efforts provide limited protection, they are insufficient to fully safeguard intellectual property (IP). Collaborations with IP experts to secure design patents and copyrights could offer stronger legal protection. Additionally, blockchain technology has been proposed as a promising tool to authenticate and trace product origins, ensuring integrity and reinforcing consumer trust. However, empirical interviews revealed that most artisans have limited awareness of IP rights and protections, indicating a gap in legal literacy that hampers effective IP defense.

This challenge is exacerbated by structural limitations in existing IP frameworks, which often fail to account for communal authorship and the evolving nature of traditional crafts (Shava & Vyas-Doorgapersad, 2022). Prevailing individualistic and static legal models are misaligned with the collective and dynamic character of artisanal knowledge. Cultural Memory Theory emphasizes that living heritage must be preserved through community agency and symbolic continuity; thus, IP protection must uphold cultural integrity while allowing iterative reinterpretation. Technologies such as blockchain offer promising solutions by ensuring traceability and authorship authentication (Zhang, 2023). Reinterpretation and Re-figuration Theory further critiques rigid ownership constructs, advocating for co-authored, ethically governed design evolution (Dekker, 2025a). In this light, IP systems should support cultural innovation while respecting community-defined boundaries.

From the ABCD perspective, empowering artisans through legal literacy and co-designed protection strategies transforms them from passive IP recipients to active heritage stewards (García, 2020). This requires interdisciplinary collaboration—integrating legal, technological, and cultural expertise—to develop holistic, community-driven governance models that secure cultural ownership while fostering creative resilience. Comparatively, similar issues faced by indigenous craft communities in New Zealand and Canada have been addressed through co-managed IP frameworks, blending traditional knowledge protection with modern legal tools (Brown & Nicholas, 2012). These examples can guide Payung

Geulis artisans in advocating for contextually appropriate IP protections that balance innovation and cultural safeguarding.

3. Broader Impact of Digitalization on Community Development

3.1 Economic Empowerment

Digital marketing has profoundly impacted the economic viability of Payung Geulis artisans, with many reporting a 40%-50% increase in customer numbers. This increase is supported by data indicating a 35% growth in online sales revenue over the past two years. Artisans who adopted live streaming and digital advertising strategies on platforms like Shopee and Lazada experienced a 25% higher conversion rate compared to those relying solely on traditional marketing methods. This growth has also created local employment opportunities, as artisans have expanded their operations to meet rising demand. For example, interviews revealed that over 70% of active artisans in Tasikmalaya now employ additional workers for tasks such as painting, packaging, and managing social media accounts. This employment surge has provided livelihoods for community members, particularly youth and women.

The measurable growth in customer engagement and digital revenue among Payung Geulis artisans signifies not merely commercial adaptation, but a paradigmatic restructuring of the local cultural economy through technologically mediated agency. Situated within the theoretical contours of Asset-Based Community Development (ABCD)(Mathie & Cunningham, 2005), this development reveals how communities strategically activate embedded cultural assets—such as artisanal knowledge, intergenerational skillsets, and socio-symbolic capital—to generate new forms of economic participation. The utilization of digital commerce platforms such as Shopee and Lazada transcends conventional marketing, repositioning traditional craft as a contemporary socio-economic driver.

This process can be further elucidated through Amartya Sen's capability approach(Garcés-Velástegui, 2022), which conceptualizes development as the expansion of substantive freedoms. The 35% increase in online revenue, coupled with the employment of women and youth in auxiliary roles (e.g., logistics, packaging, digital engagement), underscores a locally rooted ecosystem in which empowerment is operationalized from within, rather than imposed externally. Here, digital participation becomes both a means and an end—catalyzing economic independence while preserving cultural form. Institutionalizing these gains through formalized e-commerce partnerships and state-

supported capacity-building—such as infrastructure investment, targeted subsidies, and digital literacy training—would contribute to the stabilization and scaling of these outcomes. As Paschalidou et al.(Paschalidou et al., 2022) suggest, enduring digital ecosystems are contingent on cross-sector collaboration that reflects and reinforces community-authored priorities.

3.2 Community Inclusivity

Digital platforms have facilitated the inclusion of resellers, significantly broadening market reach. "There are many resellers, including those in Bali, who help us distribute products to areas we cannot directly access," noted one artisan. Such collaborations create mutual benefits and strengthen local economies. Formalizing these partnerships through contracts could ensure accountability and long-term growth. Training programs for resellers to improve their digital marketing skills could also enhance the overall efficacy of these networks.

The proliferation of reseller partnerships within the Payung Geulis value chain reflects a significant shift toward decentralized, horizontally networked economic structures. These resellers act not only as intermediaries in distribution, but also as critical nodes in a grassroots learning ecology. Under Community Education Theory, such networks illustrate the potency of non-formal, situated learning—where knowledge is co-produced, circulated, and adapted in contextually responsive ways.(Khairunnisa et al., 2024; Nurhayati, Dina, et al., 2024; Rahmat et al., 2024) ABCD offers a complementary lens, situating these partnerships as emergent expressions of collective agency (Mathie & Cunningham, 2005). Rather than remaining tethered to transactional logics, the system of mutual benefit, trust, and knowledge-sharing exemplifies a values-based economy rooted in cultural resilience. Edgar(Edgar, 2023) reinforces this view by underscoring that formalization through contractual accountability and reciprocal training frameworks enhances not just scalability, but legitimacy within and beyond the community. Moreover, these networks operate as iterative learning loops—facilitating the continual exchange of feedback, adaptation, and innovation. Their organic alignment with Freirean dialogical pedagogy situates them as emancipatory spaces, where digital literacy and economic empowerment unfold concurrently, not sequentially.

3.3 Education and Skill Development

Training programs have equipped artisans with foundational digital skills, yet gaps in advanced knowledge persist. One artisan remarked, "The training sessions taught me how

to use social media and digital tools for marketing, but I need more advanced training to stay updated." Addressing this gap requires collaboration with universities and technology organizations to develop specialized programs in areas such as e-commerce optimization and digital storytelling.

Despite increased exposure to digital technologies, artisans continue to report deficits in advanced digital fluency, particularly in areas requiring strategic, data-informed engagement. This gap foregrounds the necessity of pedagogical approaches that are deeply attuned to community epistemologies. Community Education Theory insists that for learning to be transformative, it must emerge from the lived realities of participants—building on prior knowledge, addressing current challenges, and enabling future agency(Nurhayati, 2021; Rahmat et al., 2024).

The co-development of curricula in partnership with universities and NGOs presents an opportunity to recalibrate the focus of digital training. Beyond basic platform navigation, modules should encompass algorithmic literacy, consumer analytics, and narrative marketing that preserves the cultural authenticity of Payung Geulis. Under the ABCD framework, this co-production is not merely participatory—it is epistemologically generative, recognizing communities as sites of intellectual authority. Wang et al.(Wang et al., 2024) articulate a triadic schema for capacity-building that includes technical skill, narrative competence, and entrepreneurial agency. This resonates strongly with the aspirations of Payung Geulis artisans, who position themselves not simply as producers of goods, but as curators of heritage. Embedding intergenerational mentorship and craft transmission into digital pedagogy ensures that heritage preservation is not subordinated to innovation, but dialectically entwined with it. This convergence of tradition and technology defines the threshold of a sustainable, culturally coherent digital craft economy.

3.4 Youth Engagement

Engaging younger generations remains a critical challenge. "Many young people are more interested in becoming employees than pursuing entrepreneurial ventures like this," one artisan shared. Integrating Payung Geulis into school curricula and showcasing successful entrepreneurial stories could inspire youth participation and revitalize interest in traditional crafts. Interactive workshops and mentorship programs could provide practical exposure, fostering a sense of ownership and pride among younger generations. Highlighting the sustainability and cultural significance of the craft may also appeal to their values.

The disengagement of younger generations from traditional crafts such as Payung Geulis underscores a profound intergenerational disconnect, necessitating pedagogical strategies that are both culturally situated and forward-looking. Drawing on the tenets of Community Education Theory, this phenomenon demands educational approaches grounded in dialogical engagement and participatory learning, wherein youth are positioned not as passive recipients of heritage, but as co-authors of its contemporary meaning.(Nurhayati, 2021; Rahmat et al., 2024; Setiadi et al., 2023) Freire's(Freire, 1970) conception of horizontal pedagogy offers a conceptual scaffold for such engagements, advocating for reciprocal knowledge exchange and critical cultural reflection.

Embedding Payung Geulis within formal education—particularly through interdisciplinary modules that incorporate storytelling, entrepreneurship, and digital media—can cultivate early cultural attachment while reframing traditional craft as a viable domain of personal and professional identity. This aligns with Amartya Sen's capability approach(Garcés-Velástegui, 2022), which emphasizes the expansion of individual freedoms through meaningful opportunity structures. Reimagining craft education as both a site of cultural continuity and economic innovation provides youth with the agency to reinterpret heritage within the logics of contemporary relevance. Further, mentorship programs and digital storytelling initiatives that spotlight the success narratives of young artisans function as aspirational frameworks. These interventions not only disrupt prevailing perceptions of artisanal practice as obsolete but also instantiate pathways for youth participation that are economically sustainable and culturally affirming. Such models signal a paradigmatic shift toward youth-centered heritage stewardship—anchored in technological fluency, critical pedagogy, and local epistemologies.

3.5 Cultural Sustainability

Efforts to preserve Payung Geulis include online documentation and community-driven events. These initiatives have led to tangible outcomes, such as increased cultural tourism and heightened public awareness. Data from the Tasikmalaya Tourism Office indicates a 20% rise in cultural event attendance in 2023, partially attributed to the promotion of Payung Geulis through digital channels. Additionally, local surveys report that 65% of attendees at these events learned about Payung Geulis via social media, demonstrating the effectiveness of these platforms in reaching wider audiences. Further analysis of digital engagement reveals that posts and campaigns focusing on the cultural history of Payung Geulis generated a 40% higher interaction rate compared to general marketing content,

underscoring the audience's interest in its heritage value. Additionally, e-commerce platforms reported that customers who interacted with educational content about Payung Geulis were twice as likely to make repeat purchases, highlighting the economic impact of cultural education. Developing digital archives and collaborating with museums could further institutionalize these preservation efforts. For example, partnerships with regional museums have resulted in virtual exhibitions, attracting over 10,000 online visitors within six months. One artisan reflected, "Our collaboration with museums has brought the story of Payung Geulis to thousands of people who might never have encountered it otherwise." Another shared, "The digital archives not only preserve our heritage but also provide an engaging way for younger generations to learn about our craft."

Embedding these strategies within broader cultural policies ensures the sustainability of Payung Geulis, connecting its legacy to both local and international audiences. By leveraging digital tools, these efforts foster a dynamic interface between tradition and modernity, preserving, promoting, and innovating within the craft. This comprehensive approach secures its future relevance and impact, ensuring that Payung Geulis remains a vibrant symbol of Indonesia's cultural heritage while adapting to contemporary market and societal demand.

The emergent strategies for the preservation of Payung Geulis—including virtual exhibitions, social media campaigns, and digital archiving—exemplify the application of Cultural Memory Theory in a digitally networked environment. These tools do more than document—they actively produce cultural memory by mediating how heritage is interpreted, circulated, and inhabited.(Yang & Inkuer, 2024) The documented 40% increase in engagement for heritage-rich digital content underscores the emotive and pedagogical efficacy of these strategies in maintaining narrative continuity and collective identity. Moreover, these initiatives substantiate the socio-economic relevance of heritage preservation. Following Eglash et al.'s(Eglash et al., 2019) concept of the democratization of economies, the integration of local community members—including youth—into the processes of digital storytelling, logistics, and curation transforms heritage from a site of memory into a locus of participation and innovation. These developments align with the principles of ABCD, which emphasize endogenous resource mobilization and self-determined development trajectories.(Mathie & Cunningham, 2005) It becomes clear that Payung Geulis is not merely being preserved—it is being actively reconstructed through a digitally mediated, community-rooted praxis. The intersection of pedagogical, cultural, and

economic innovation exemplifies a holistic approach to sustainability, where tradition is not frozen in time but animated through collective creativity, technological engagement, and intergenerational knowledge exchange.

Conclusion

This study underscores the transformative capacity of digital platforms in empowering Payung Geulis artisans, highlighting their critical role in advancing community education, safeguarding cultural heritage, and fostering economic development. The findings reveal that tools such as Instagram, WhatsApp, and e-commerce platforms have enabled artisans to extend their market reach, engage broader audiences, and preserve cultural traditions through strategic storytelling and innovative digital practices. Notably, the integration of live streaming and educational content has driven a 40% increase in audience interaction and facilitated significant geographic market expansion, establishing Payung Geulis as both a cultural and economic asset. However, the study identifies persistent barriers that hinder the full realization of digitalization's potential. Limited digital literacy, infrastructural deficiencies, and intellectual property vulnerabilities pose significant challenges. Addressing these obstacles through targeted training programs, investments in digital infrastructure, and robust intellectual property frameworks could significantly enhance the artisans' ability to capitalize on digital tools. The study demonstrates that such measures are instrumental in strengthening community resilience, promoting inclusive economic growth, and ensuring the sustainability of traditional crafts.

This research makes a meaningful contribution to the discourse on digitalization and its intersection with intangible cultural heritage preservation. By providing empirical insights, it informs policymakers, educators, and cultural institutions on fostering innovation while sustaining cultural identity. Future research should investigate the scalability of these findings in diverse cultural contexts, particularly focusing on cross-regional collaborations and the longitudinal effects of digital adoption on artisanal livelihoods. Such inquiries could further illuminate pathways for integrating tradition with modernity, ensuring the vitality of cultural heritage in an increasingly digitalized world.

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