INTEGRATING INTELLECTUAL PROPERTY AND DIGITAL CULTURAL BRANDING FOR BATIK MICROENTERPRISE EMPOWERMENT

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Abstract. This study examines an integrated empowerment model combining intellectual property (IP) literacy, copyright and trademark readiness, digital visual communication, and local-cultural branding for Batik Senjaya, a microenterprise group in Atang Sanjaya, Bogor Regency. The intervention used a participatory community-based approach implemented through eight field visits covering diagnosis, training, design digitization, IP facilitation, digital-channel development, mentoring, and evaluation. Descriptive pre-post evaluation records show that the proportion of participants able to distinguish copyright, trademarks, and patents increased from 20% to 80%; 60% were able to prepare registration documents after the program, and awareness of legal protection reached 100%. The program also produced 12 digitized batik motifs, one visual identity, one e-catalogue, and 20 promotional contents. Four motif/design copyrights were reported as registered with the Directorate General of Intellectual Property, while a collective-mark application remained at the document-drafting stage. The findings indicate that IP assistance becomes more useful when linked to cultural narrative, standardized visual assets, and digital distribution capability. Rather than treating legal protection and digital marketing as separate activities, the Batik Senjaya case suggests a capability pathway of protect-identify-narrate-distribute. The study contributes a community-empowerment perspective to debates on heritage-based microenterprise digitalization while emphasizing that longer-term sales, platform analytics, and legal-registration outcomes still require follow-up evaluation.

Keywords: Intellectual Property; Cultural Branding; Digitalization; Batik MSMEs

I. INTRODUCTION

Indonesia's micro, small, and medium enterprise sector remains central to employment, household income, and local economic resilience. Government data continue to place MSMEs at more than 64 million business units, accounting for about 97% of national employment and more than 60% of gross domestic product [1]. Yet scale alone does not guarantee competitiveness. Recent national studies of digital adoption among ultra-micro, micro, and small enterprises show that technology use remains uneven and is strongly shaped by business characteristics, infrastructure, owner capacity, and the surrounding cultural environment [2]. The latest BPS profiles of micro and small industries similarly treat internet use, innovation, marketing distribution, and business constraints as key indicators of enterprise development [3]. For cultural microenterprises, these challenges are compounded by the need to protect creative assets while translating local meaning into market-facing communication.

Batik illustrates this dual challenge particularly clearly. Indonesian batik is internationally recognized as intangible cultural heritage, but its economic sustainability depends on the ability of artisan groups to maintain cultural legitimacy while adapting design, documentation, marketing, and distribution to contemporary markets [4]. In legal terms, Indonesian copyright law explicitly includes batik art and other motif art among protected works, while also distinguishing contemporary original motifs from traditional expressions [5]. Trademark law provides another layer of protection for signs that differentiate goods and services, including collective marks used by associations or groups, and the 2026 trademark-registration regulation updates procedures for submitting applications [6], [7]. Consequently, a batik microenterprise must manage at least two related assets: the creative work embodied in motifs and the market identity embodied in names, logos, and branding systems.

Digitalization adds a third layer. National e-commerce statistics show continued growth in online business activity, while Bank Indonesia's Digital Adoption Index study of more than 10,000 ultra-micro, micro, and small enterprises finds that digital adoption is positively associated with business performance, innovation, financial literacy, and financial inclusion [2], [8]. However, research on Indonesian batik enterprises suggests that digital tools do not automatically produce performance improvements. Recent evidence indicates that digital marketing creates value when it is connected to innovation, adaptive market capabilities, and entrepreneurial practices [9], [10]. In parallel, visual-communication studies show that culturally responsive branding can strengthen authenticity, differentiation, and audience relevance when local symbols and narratives are organized into a coherent identity system [11]. Research on digital batik storytelling further demonstrates that motifs acquire brand meaning through coordinated narrative moves across websites and social media rather than through visual display alone [12].

These developments are relevant to Batik Senjaya in Atang Sanjaya, Kemang District, Bogor Regency. The artisan group was formally established in 2024 and produces handwritten batik using motifs associated with local flora, fauna, and cultural references. The source program documentation identifies several challenges: limited understanding of IP protection, absence of a registered collective brand, weak visual-identity standardization, minimal use of digital marketing channels, and limited capacity to produce promotional content independently. The

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problem was therefore not simply "lack of marketing." It involved a fragmented asset system in which motifs, legal ownership, brand identity, cultural narratives, and digital channels had not yet been managed as connected resources.

This study reframes the Batik Senjaya intervention as an integrated capability-building process. Instead of evaluating IP facilitation and digital branding as separate outputs, it asks how legal literacy, design digitization, local-cultural identity, and digital communication can be linked in a single empowerment pathway. The analytical contribution lies in conceptualizing the intervention as a protect-identify-narrate-distribute sequence: creative assets are first recognized and protected; brand elements are standardized; local meaning is translated into communicable stories; and digital channels are prepared for broader circulation. This framing is consistent with recent evidence that cultural identity can strengthen market differentiation in batik enterprises [13] and with earlier evidence that digital marketing influences purchase decisions when combined with credible communication and service value [14]. The study therefore aims to (1) describe changes in IP literacy and practical registration readiness, (2) identify the visual and digital assets produced through the program, and (3) analyze how the integration of legal protection and cultural branding contributes to microenterprise capability development.

II. RESEARCH METHOD

The study used a participatory community-based intervention design focused on Batik Senjaya in Atang Sanjaya, Kemang District, Bogor Regency, West Java. The activity combined community engagement with descriptive evaluation of capability changes and program outputs. The partner profile in the source documentation describes a core artisan group of 10 members, while the evaluation table reports 15 participants. Because the source document does not specify the relationship between these two counts, they are reported separately rather than treated as identical populations.

The intervention was implemented through eight field visits and organized into five stages. The first stage consisted of program socialization, direct observation, interviews, and validation of partner problems. The second stage provided technical and managerial training covering IP concepts, motif development, visual identity, digital bookkeeping, content creation, and digital marketing. The third stage focused on technology application, including graphic digitization of motifs, preparation of brand assets, establishment of digital channels, and production of promotional material. The fourth stage consisted of mentoring and evaluation through repeated visits, WhatsApp communication, questionnaires, follow-up interviews, and observation of work outputs. The fifth stage addressed continuity through the transfer of templates, guides, digital files, and monitoring responsibilities.

The evaluation used three forms of evidence. First, pre-post descriptive indicators were used to assess IP literacy: ability to distinguish copyright, trademarks, and patents; ability to prepare registration documents; and awareness of the importance of legal protection. Second, output verification was used to record the number and type of digitized motifs, visual-identity assets, promotional materials, and IP documents. Third, qualitative observation was used to interpret how legal and visual interventions supported business identity and independent digital communication. No inferential statistical tests were applied; percentage changes are therefore descriptive and should not be interpreted as causal effect estimates.

The legal analysis refers to Law No. 28 of 2014 on Copyright, Law No. 20 of 2016 on Trademarks and Geographical Indications as amended, and Minister of Law Regulation No. 5 of 2026 on Trademark Registration [5]-[7]. The discussion also incorporates recent studies on batik SME digitalization, cultural branding, and heritage communication [9]-[13]. Program documentation contains some summary figures that differ from the detailed results tables; this article uses the itemized tables as its analytic basis. Final administrative records should be checked again before publication to ensure that the reported number and status of IP registrations match the official DJKI database.

III. FINDINGS AND DISCUSSION

The findings are organized into four connected dimensions: IP literacy, legal-protection readiness, visual-asset digitization, and cultural-digital branding capability. This structure shifts the analysis from a list of activities toward the capability chain created by the intervention.

A. Intellectual Property Literacy as Organizational Capability

The strongest immediate change occurred in basic IP literacy. Before mentoring, only 20% of evaluation participants were reported to distinguish copyright, trademarks, and patents. After the program, the proportion increased to 80%. Practical document-preparation ability, which was reported at 0% before the program, reached 60%, while awareness of the importance of legal protection increased from 30% to 100%. These descriptive results indicate that the intervention moved beyond awareness-raising toward procedural readiness.

This distinction matters because cultural microenterprises frequently possess creative assets without treating them as manageable intellectual property. For batik, the issue is particularly sensitive. Copyright law recognizes batik art and contemporary motif art as protected works, while recent DJKI guidance stresses the need to distinguish individual or corporate original motifs from communal traditional cultural expressions [5]. In practice, this means that legal assistance must begin with asset identification: which motif is newly created, who is the creator or rights holder, what documentation demonstrates authorship, and whether the relevant protection route is copyright, trademark, collective mark, industrial design, or another regime. Literacy therefore functions as an institutional capability, not merely legal knowledge.

Table 1. Descriptive Change in Intellectual Property Literacy

Indicator	Before	After	Interpretation
Distinguish copyright, trademarks, and patents	20%	80%	Basic conceptual literacy increased
Prepare registration documents	0%	60%	Practical administrative readiness emerged
Recognize importance of legal protection	30%	100%	Legal awareness became universal in evaluation group

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B. From Registration Readiness to Legal Asset Management

Program records indicate that four motif/design copyrights were registered with the Directorate General of Intellectual Property. A collective mark for "Batik Senjaya" had reached the document-drafting stage but was not yet reported as fully registered. This difference is important. Copyright protection and trademark protection perform different functions: copyright helps document rights in creative works, whereas a trademark distinguishes goods or services in the marketplace [5]-[7]. For a producer group, the collective-mark route can potentially connect shared identity with agreed rules of use, but legal effect depends on completion of the formal registration process.

The Batik Senjaya case therefore shows that "IP output" should not be reduced to the number of certificates. A more useful sequence is identification, documentation, filing readiness, submission, registration, and post-registration management. This is also why the 60% post-program document-preparation indicator is significant from a capacity perspective: it suggests that some participants can begin to participate in the legal-administrative process rather than depend entirely on external facilitators.

Table 2. Intellectual Property and Digital-Branding Outputs

Output	Quantity	Status / Function
Digitized batik motifs	12	Reusable visual and documentation assets
Business logo	1	Visual identity standardization
E-catalogue	1	Digital product and motif documentation
Promotional contents	20	Social-media and online-promotion assets
Copyright records for motif/design	4	Reported as registered with DJKI
Collective mark document	1	Draft completed; registration not yet reported

C. Digitizing Motifs as Reusable Cultural and Business Assets

The second capability dimension involved transforming locally rooted designs into standardized digital assets. The program documented 12 batik motifs in digital form, produced one business logo, compiled one e-catalogue, and created 20 promotional-content assets. Digitization in this context was not intended to replace handwritten batik production. Its function was to create reusable files for documentation, catalogue production, social media, marketplace display, and IP administration.

Recent research supports treating digital design as an enabling capability rather than an end in itself. Febrianda et al. show that digital technology can reinforce entrepreneurial activity and innovation within Indonesian batik SMEs [9]. Hussein et al. likewise find that digital marketing capabilities contribute to performance through innovation and market agility rather than through a simple direct effect [10]. The implication for Batik Senjaya is that digitizing motifs has strategic value only when the resulting files are embedded in production, narrative, cataloguing, customer communication, and legal-protection processes.



Fig. 1. Selected Batik Senjaya motifs documented in the program.

D. Local Cultural Narrative as Brand Differentiation

The third dimension concerns cultural branding. The source program identified local motifs such as Lereng Cikal, Kembang Honje, Haur Sanjaya, Kaulinan Barudak, Elang Bondol, Anggrek Bulan, and other flora-fauna references associated with Atang Sanjaya. These motifs constitute more than decorative variation; they are potential narrative anchors. Recent branding research argues that culturally adaptive visual identity can generate authenticity and differentiation when aesthetic elements, language, and cultural references are translated coherently for audiences [11]. In batik specifically, digital storytelling research shows that motifs become meaningful brand assets when visual references are linked to value statements, heritage explanations, craft-process legitimacy, and platform-specific narratives [12].

This insight changes the role of the e-catalogue and social-media content. A catalogue should not merely display patterns and prices; it can document motif names, origin stories, symbolic meanings, making processes, creators, and IP status. Likewise, social media can move from generic promotion to "motif-to-meaning" communication. Such narrative discipline reduces the risk that local identity becomes a superficial aesthetic label and instead makes cultural provenance part of the brand proposition. This is consistent with recent evidence that regiocultural branding strengthens marketing performance among batik SMEs when local identity is integrated with market orientation and cultural intelligence [13].

E. The Protect-Identify-Narrate-Distribute Empowerment Pathway

Taken together, the Batik Senjaya intervention suggests an integrated empowerment pathway: protect-identify-narrate-distribute. "Protect" refers to IP literacy, authorship documentation, and registration readiness. "Identify" refers to the standardization of the name, logo, motif files, and visual system. "Narrate" refers to converting local cultural references into stories and product meanings that remain faithful to community context. "Distribute" refers to the ability to circulate those assets through Instagram, marketplace channels, e-catalogues, and other digital touchpoints. Each stage supports the next. Legal protection without a coherent brand may secure ownership but not recognition; branding without asset documentation may create visibility without legal readiness; digital channels without narrative coherence may increase posting activity without strengthening identity.

The model also clarifies why a short-term community program should be cautious about claiming market expansion. The source documentation demonstrates improved literacy and concrete outputs, but it does not provide longitudinal evidence on sales growth, conversion rates, follower quality, marketplace transactions, or repeat purchases. National evidence shows that digital adoption can improve performance and innovation [2], while firm-level research emphasizes that the effect depends on complementary capabilities [9], [10]. Therefore, the most defensible

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conclusion from the present case is capability formation rather than proven commercial impact.

The intervention has several practical implications. First, IP mentoring for cultural MSMEs should be integrated with brand-asset management from the beginning. Second, digital-content training should use a shared repository of approved motif files, logos, color systems, captions, and narrative descriptions so that visual consistency can be maintained after the program ends. Third, collective-brand governance should include clear rules on who may use the mark, quality standards, and how cultural narratives are represented. Fourth, follow-up evaluation should track both legal milestones and digital-market indicators. These steps would convert one-off training into an organizational routine and reduce dependence on external facilitators.

F. Limitations and Data Integrity

This study is limited by its program-based design, short observation period, and descriptive evaluation. It does not establish causality between the intervention and business performance. The source documentation reports 10 core artisan members but 15 evaluation participants without specifying the overlap; this should be clarified in final reporting. The detailed results tables report 12 digitized motifs and four copyright registrations, whereas some higher-level summary statements in the source draft use different counts. The itemized tables were used in this article because they provide the more specific evidence, but the figures should be reconciled with final administrative records before journal submission. The study also lacks post-program sales data, social-media analytics, marketplace transactions, and longitudinal evidence on whether the new visual and IP capabilities are sustained.

IV. CONCLUSION

The Batik Senjaya case demonstrates that intellectual property assistance becomes more meaningful when it is connected to cultural branding and digital capability building. Descriptive evaluation records show substantial gains in basic IP literacy and registration-document readiness, accompanied by the creation of reusable digital assets: 12 digitized motifs, a business logo, an e-catalogue, and 20 promotional contents. Four motif/design copyrights were reported as registered, while the collective-mark process remained at the drafting stage. These outcomes indicate progress from informal creative production toward more organized asset management.

The analytical contribution of the study is the protect-identify-narrate-distribute pathway. Cultural microenterprises need to recognize and document creative ownership, standardize brand assets, translate local meaning into responsible stories, and then distribute those assets through digital channels. The sequence helps avoid two common weaknesses: legal protection that is disconnected from market identity and digital promotion that is disconnected from cultural provenance. For Batik Senjaya, the next stage should focus on completing collective-mark procedures, maintaining a verified motif archive, implementing a consistent storytelling system, and evaluating sales and platform performance over time. Future studies should use longitudinal designs to test whether integrated IP-cultural branding capabilities lead to sustained market outcomes and stronger community control over local creative assets.

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