

DEVELOPING A FRAMEWORK TO ASSESS THE AUTHENTICITY OF MALAY TRADITIONAL BATIK AND CULTURAL PRESERVATION

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Abstract. This concept paper aims to develop a cohesive framework with operational indicators for assessing the authenticity of Malay traditional batik and its preservation as cultural heritage. The framework is structured across four interrelated dimensions: design, technique, provenance, and narrative context. Each dimension will be examined to ensure that authenticity reflects not only aesthetic and technical qualities but also the cultural lineage and symbolic meanings embedded in batik creation. Innovation and technological integration are recognized as influencing factors that both enhance and challenge the authenticity of traditional craftsmanship. Data will be collected through literature mapping, field interviews, and artefact analyses to generate indicators that capture both tangible and intangible elements of authenticity. The expected outcomes indicate that authenticity in Malay batik is a dynamic construct sustained through cultural continuity and adaptive creativity. The developed framework will offer measurable indicators for policymakers, artisans, and cultural institutions to safeguard authenticity amid globalization and industrial imitation. Technological adoption, when aligned with traditional ethics, will support sustainable preservation. The study contributes to cultural heritage research by providing a replicable model for evaluating authenticity, ensuring that Malay traditional batik remains an enduring representation of national identity within evolving contemporary contexts.

Keywords: *authenticity, cultural heritage, framework, innovation, preservation*

Introduction

The essence of Malaysian culture is intricately woven into its traditional crafts, among which batik stands out as a quintessential symbol, embodying not only aesthetic values but also profound historical and cultural narratives. Globalization and mass production have weakened mechanisms for safeguarding authentic Malay batik. A structured framework is therefore essential to translating cultural preservation goals into measurable, enforceable criteria. The development of a practical framework for authenticity assessment is thus paramount in securing the integrity of Malaysian batik as a cultural heritage. Authenticity in the context of traditional batik can be approached through several theoretical lenses, particularly those that emphasize the social dimensions that govern artistic and cultural expressions. The work of Ibrahim et al. indicates that authenticity must consider the multifaceted social processes embedded in real-life contexts, such as communal values and traditions, which profoundly impact how art is perceived and engaged with by the community (Ibrahim et al., 2023). This aligns with the findings of Lean and Barber, who argue that successful authentic assessments require collaboration and stakeholder involvement, emphasizing the importance of community support in fostering an environment conducive to cultural authenticity (Lean and Barber, 2022). Additionally, as articulated by Kamaruddin et al. (2021), contemporary batik patterns often lack a robust Malaysian identity, suggesting a disconnect between modern adaptations and traditional roots. Their study advocates

integrating interactive applications that can serve as tools for documenting and educating about authentic batik patterns, thereby engaging younger generations and broader audiences in cultural preservation efforts (Kamaruddin et al., 2021). The incorporation of digital technologies, as discussed by Hu et al., suggests that a systematic, technological approach can enhance the accessibility and dissemination of traditional batik, thereby supporting its preservation (Hu et al., 2025). In synthesizing these perspectives, it becomes evident that an authentic assessment framework must not only evaluate the artistic qualities of batik but also critically engage with the historical, social, and technological dimensions that influence its production and appreciation. The goal is not merely the preservation of aesthetics but the vitality of culture itself, ensuring that traditional batik remains a living heritage reflective of genuine Malaysian identity and values.

The preservation of Malay traditional batik as both cultural heritage and artistic expression faces significant challenges, mainly due to the lack of a cohesive framework with operational indicators to assess "authentic batik" across design, technique, provenance, and narrative context. The recognition of batik by UNESCO as an Intangible Cultural Heritage in 2009 has elevated its significance globally, reinforcing its status as a national symbol (Desma, 2024). However, this international recognition has not translated effectively into local measures to maintain the authenticity of batik, particularly amid globalization and the proliferation of mass-produced batik imitations that disregard traditional methods (Desma, 2024; Widiarty, 2024). The absence of a standardized framework for evaluating authentic batik diminishes the effectiveness of policy initiatives and certification efforts aimed at safeguarding this cultural asset. Studies emphasize the importance of integrating cultural narratives with product quality, advocating for an approach that encompasses both the craftsmanship and the cultural stories embedded in each piece of batik (Adityayoga et al., 2025). This narrative-driven marketing can enhance brand loyalty and support the cultural authenticity of batik products. However, without operational indicators that clearly define what constitutes "authentic batik," producers and policymakers face challenges in implementing effective measures to address piracy and misinformation about batik's cultural origins and quality standards (Adityayoga et al., 2025; Widiarty, 2024). Additionally, integrating innovations and technologies into traditional batik practices complicates the determination of authenticity. While modern techniques may enhance the visual appeal and durability of batik products, it is essential to ensure that these innovations do not undermine the cultural integrity of batik (Matcan-Lisenco, 2024). Consequently, creating a shared framework with comprehensive operational indicators to evaluate authenticity across practical dimensions is crucial for the future of Malay traditional batik. Such a framework would serve as a guideline for artisans and traders and as an informative tool for consumers seeking authentic representations of Malay culture amid a market inundated with counterfeit and diluted forms of batik (Chamidah et al., 2025). Addressing the challenges of traditional batik authenticity is vital to the practical preservation of culture and artistic expression. Establishing a shared framework for authenticity assessment, including operational indicators, would empower policymakers, artisans, and consumers alike, safeguarding batik's cultural legacy for future generations while ensuring its relevance in contemporary artistic discourse.

This study aims to develop a cohesive framework with operational indicators for assessing the authenticity of Malay traditional batik across design, technique, provenance, and narrative context, and to examine the influence of innovation and

technological integration on the authenticity and cultural integrity of batik within contemporary production and marketing practices. Accordingly, the research seeks to answer two key questions: How can a cohesive framework with operational indicators be constructed to evaluate the authenticity of Malay traditional batik across design, technique, provenance, and narrative context? In what ways do innovation and technological integration influence the authenticity and cultural integrity of Malay traditional batik in modern production and marketing practices?

Literature review

Authenticity frameworks in traditional craft and cultural heritage evaluation

The authenticity of traditional crafts, particularly in the context of Malaysian batik, is paramount for maintaining cultural heritage. Empirical studies demonstrate that perceived authenticity significantly enhances subjective well-being and memorability for tourists engaged in cultural heritage contexts (Yi et al., 2021). This underscores the need for frameworks that accurately assess authenticity. Previous research has examined the relationship between authenticity, local culture, and tourists' perceived value, establishing that authenticity is crucial for fostering memorable tourism experiences (Satrya et al., 2024). However, gaps remain in understanding how these concepts specifically apply to traditional crafts like batik. While several studies explore authenticity dimensions in other cultural domains (Wu, 2022), they often lack a focused approach on traditional craft assessment frameworks and their implications for cultural preservation. Methodological approaches have varied, yet contemporary studies emphasize qualitative measures and psychological aspects to gauge authenticity's impact on cultural heritage experiences. This review reveals a critical need for targeted frameworks that address both empirical assessments and theoretical foundations specific to traditional crafts (Yi et al., 2021). Addressing these deficiencies, the research will integrate recent methodologies and emerging trends to develop a robust framework that evaluates batik authenticity, thereby contributing to both theoretical insights and practical applications in cultural heritage preservation.

Design and technical authenticity in traditional textile practices

The issue of authenticity in traditional textile practices, particularly in Malay traditional batik, remains a significant concern during global cultural exchanges and modernization. Recent studies illustrate the mutable nature of textile motifs and their implications for cultural identity retention. For instance, Mayusoh et al. (2025) highlight that modernizing traditional textile patterns can enhance market relevance while fostering cultural preservation, indicating ongoing struggles between authenticity and adaptation in textile practices (Mayusoh et al., 2025). Similarly, Wahed et al. assert the significance of diverse batik motifs across Southeast Asia, noting that these textiles convey cultural narratives that risk dilution without strategic preservation efforts (Wahed et al., 2022). Researchers have employed various methodologies to address these concerns. Choudhary and Pargai examine Bhil tribal art, analyzing its contemporary adaptations, which reflect a broader trend of integrating traditional motifs into modern design while navigating ethical challenges (Choudhary and Pargai, 2024). These findings collectively underscore a pattern in which the intersection of tradition and innovation presents both opportunities and risks (Choudhary and Pargai, 2023). However, gaps remain in understanding the authenticity of batik, specifically within its

cultural context. The existing literature often overlooks detailed empirical analyses of artisans' perspectives on authenticity and the market dynamics that affect batik's perceived value (Atmojo et al., 2024). Emerging methodologies, including digital design tools used to adapt tribal arts, reflect a contemporary approach to traditional practices (Choudhary and Pargai, 2023). This warrants further exploration, as current studies often neglect the implications of such technologies on authenticity and cultural distortion. Addressing these gaps is crucial, as the research will investigate how these dynamics manifest in the context of Malay batik, contributing valuable insights into cultural preservation frameworks. While design and technical authenticity focus on tangible craftsmanship, provenance and narrative context extend this understanding to the intangible cultural meanings that connect artisanship to community identity.

Provenance and narrative context in cultural textile evaluation

The authenticity of Malay traditional batik and its preservation present ongoing challenges, as demonstrated by the contemporary struggles documented in various studies. For instance, Kamaruddin et al. note that current batik patterns often lack a strong Malaysian identity, complicating the preservation of this cultural heritage amid modern influences (Kamaruddin et al., 2021). Additionally, Ayesu et al. (2023) emphasize the importance of indigenous textiles as a means of cultural expression, highlighting their vital role in maintaining cultural continuity and identity within specific contexts. Research focuses on innovative methods for cultural preservation, with studies such as those by Tiemo et al. suggesting that modernizing traditional motifs can maintain cultural relevance without compromising authenticity (Mayusoh et al., 2025). However, gaps remain in the methodologies employed, particularly in the effective integration of digital technologies to preserve cultural narratives. This indicates a need for more comprehensive frameworks that synergize traditional textile evaluation with provenance information, which is currently underexplored in batik scholarship. Emerging methodologies and trends in academic research indicate a push towards interactivity and digital engagement to enhance cultural preservation efforts. While these studies provide essential insights, they often overlook a cohesive framework that directly addresses batik authenticity. The proposed study aims to fill this gap by developing an assessment framework for the authenticity of Malay traditional batik, while integrating narrative context, ultimately contributing to more effective cultural preservation strategies.

Innovation and technological adaptation in traditional craft industries

The integrity of Malay traditional batik is increasingly jeopardized by modernization and globalization, underscoring the need for a robust framework to assess its authenticity. Empirical studies underscore the challenges traditional crafts face due to technological advancement and shifting market demands, necessitating innovative adaptations (Zhang, 2024). For instance, Ya et al. highlight the distinct categories within the batik industry, emphasizing its cultural significance and the urgent need to preserve these facets amid commercialization (Ya et al., 2022). Conversely, Abdallah et al. demonstrate how artificial intelligence can enhance pattern design, suggesting that technology can both challenge and support traditional craft practices (Abdullah et al., 2024). While existing literature outlines various technological adaptations and their implications for traditional crafts, there remains a gap in comprehensive frameworks

specifically designed to assess authenticity in the Malay context. Previous research often lacks detailed methodologies tailored for batik, focusing on broader contexts (Zhang, 2024; Ya et al., 2022). Moreover, many studies do not adequately bridge the cultural significance of craftsmanship with contemporary technological advancements, leaving conceptual and practical blind spots (Dhar et al., 2024). To address these deficiencies, this research will employ recent analytical methodologies and technologies aligned with modern practices, thereby advancing understanding of the authenticity and cultural preservation of Malay batik. This approach not only reflects the current landscape of technological adaptation in traditional crafts but also fills the scholarly gap by integrating practical insights and theoretical frameworks necessary for sustaining Malay tradition.

Authenticity, cultural integrity, and heritage preservation in contemporary batik practice

The literature on the authenticity of Malay traditional batik reveals significant challenges in preserving its cultural integrity amidst globalization and commercialization. Batik is increasingly subject to commodification, often at the expense of its traditional values and practices, thereby threatening its authenticity and cultural significance (Desma, 2024; Xiao, 2024). Empirical studies highlight that market adaptations have pushed producers to innovate while striving to maintain traditional craftsmanship, thereby ensuring the economic viability of batik practices without entirely sacrificing heritage (Desma, 2024; Xiao, 2024). Previous research underscores the role of cultural narratives in enhancing consumer loyalty and brand authenticity in batik markets (Adityayoga et al., 2025). Conversely, innovative applications of traditional batik techniques, such as their integration with contemporary design, may dilute the cultural essence of batik (Matcan-Lisenco, 2024). This underlines a significant gap: many studies predominantly explore economic impacts without adequately addressing the philosophical and ethical frameworks essential for cultural preservation, such as Javanese philosophies like *Memayu Hayuning Bawana* (Rachmadi et al., 2025). Contemporary research methods, including qualitative analyses and thematic interpretations, demonstrate the need for holistic approaches to assess both authenticity and sustainability in the batik industry (Rachmadi et al., 2025). This body of work identifies crucial gaps that my research will address, particularly by developing a comprehensive framework that integrates traditional authenticity with modern market demands, thereby offering new insights into cultural preservation strategies.

Branding, marketing, and the commodification of tradition in the global batik industry

The literature on branding, marketing, and the commodification of tradition within the global batik industry reveals persistent challenges regarding authenticity and cultural preservation. The increasing commercialization of batik has raised concerns about its authenticity, as companies often prioritize market demands over cultural integrity, thereby diluting traditional practices (Atmaja et al., 2024). Empirical studies indicate that brand image significantly influences customer satisfaction in the batik sector, highlighting how modern marketing strategies can also impact traditional crafts (Hidayatullah et al., 2024). While previous research has explored motifs and design techniques in batik production, there remains a gap in understanding how authenticity is

assessed in commercialized batik products. Notably, these studies have frequently overlooked theoretical frameworks that could better evaluate how branding aligns with cultural preservation (Jamaludin et al., 2023). Emerging methodologies, such as sustainability investigations, are important but still insufficiently integrated into branding strategies (Syahid et al., 2024). Recent research shows that understanding consumer perception and awareness of cultural significance can foster more responsible marketing practices (Hidayatullah et al., 2024). As current frameworks are inadequate for addressing these complexities, my proposed study aims to develop an authenticity assessment model that integrates branding with cultural preservation efforts to address this critical gap.

Theoretical references

Cultural authenticity theory by Wang (2007) & Cohen (1988)

Cultural Authenticity Theory has been widely applied to examine how traditional cultural products maintain or lose their integrity amid modernization. It is grounded in the distinction between objective authenticity, the verifiable originality of cultural artefacts, and existential authenticity, which refers to the personal or emotional experience of cultural connection. In the context of Malay traditional batik, this theory is relevant because the craft's value is deeply tied to its perceived cultural genuineness. Through this theoretical lens, the impact of technological integration on the perceived authenticity of batik can be evaluated. The theory allows the exploration of whether innovations such as digital patterning, synthetic dyes, or automated production processes are viewed as enhancing or diluting the heritage essence of batik. It provides a framework for analyzing both artisans' and consumers' perceptions of authenticity, particularly when traditional methods are adapted to meet contemporary demands.

Diffusion of innovation theory by Rogers (2003)

Diffusion of Innovation Theory is often used to understand how new technologies and creative practices are adopted within traditional and cultural industries. The theory outlines the process through which innovation is communicated over time among members of a social system, influenced by relative advantage, compatibility, complexity, trialability, and observability. In relation to Malay traditional batik, this theory can be used to explain how artisans, designers, and producers respond to technological advancements such as digital design tools, eco-friendly dyeing, or e-commerce marketing. It helps to identify the social and cultural barriers that affect the acceptance of modern practices. The theory also supports examining how innovation diffuses unevenly across generations and regions, and how these adoption patterns influence the sustainability and cultural continuity of batik production. The Cultural Authenticity Theory provides the normative foundation for assessing design, technical, and provenance authenticity, ensuring that innovation does not compromise cultural essence. In parallel, the Diffusion of Innovation Theory explains how digital tools and sustainable materials can be adopted within traditional systems without eroding the integrity of heritage.

Conceptual framework

Figure 1 presents the proposed framework, which operates on three primary constructs: design authenticity, technical authenticity, and provenance authenticity, each functioning as an operational dimension for evaluating the authenticity of Malay traditional batik. Design authenticity is operationalized through the visual, aesthetic, and symbolic elements embedded in batik creation. Indicators such as motif originality, color harmony, and adherence to traditional iconography are measured to determine the extent to which a batik design reflects genuine Malay cultural identity. The motifs are assessed in relation to their cultural symbolism, continuity with heritage patterns, and relevance to regional identity. The operational process also involves documenting artistic attributes, including compositional balance, wax crack formation, and stylistic representation, which are linked to established regional traditions, such as those of Kelantan or Terengganu. The degree of innovation embedded in design is simultaneously evaluated to ensure that creative modifications enhance rather than erode cultural meaning. This dimension, therefore, serves as an analytical tool for distinguishing authentic cultural representation from commercial or hybridized imitations.

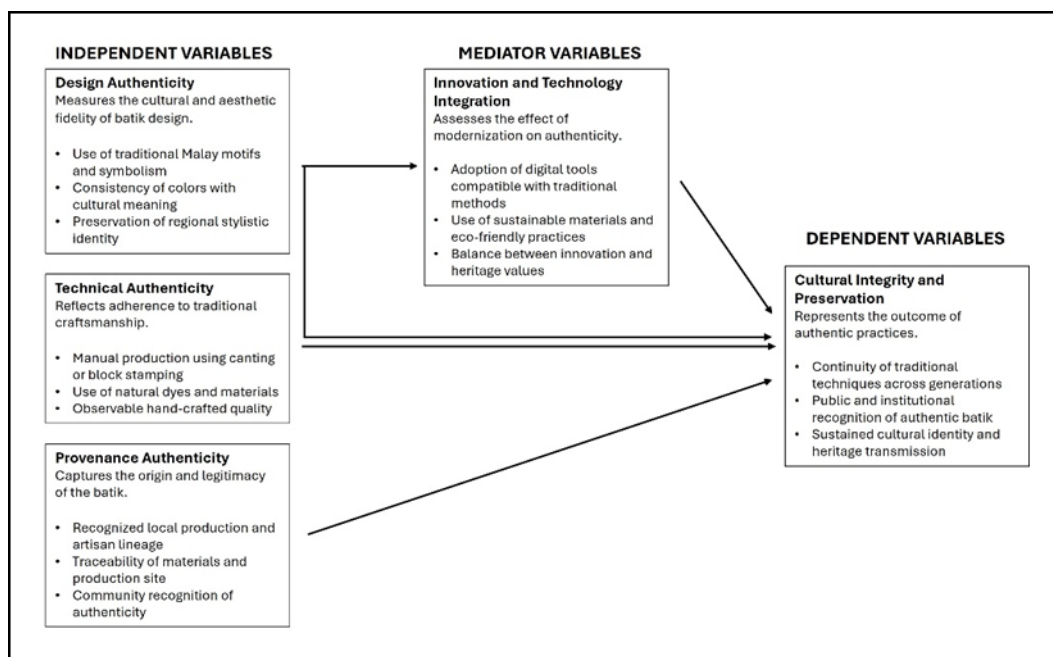


Figure 1. An authenticity, innovation, preservation conceptual framework for Malay traditional batik.

Technical authenticity is operationalized through an assessment of production techniques, material integrity, and artisanal skill involved in the creation process. Each batik piece is examined based on adherence to traditional processes such as manual canting, wax-resist dyeing, and natural coloring methods, which serve as verifiable markers of authenticity. Operational indicators within this construct include the use of hand-drawn wax techniques instead of printed substitutes, the selection of traditional dyes derived from natural or plant-based sources, and the manual layering of colors that require expert craftsmanship. The authenticity of craftsmanship is validated through observable production sequences, process transparency, and intergenerational knowledge transmission. By systematically documenting these procedures, technical authenticity ensures that heritage production practices are preserved and that

technological adaptations remain consistent with traditional ethics. This operational component serves as a benchmark for distinguishing handmade traditional batik from mass-produced or digitally generated versions that lack cultural lineage and artisanal authenticity. Provenance authenticity is operationalized through indicators that trace the origin, lineage, and narrative context of each batik piece, linking it to community, geography, and cultural continuity. The evaluation process includes verifying the artisan's background, the production locality, and the socio-cultural narratives associated with each motif. Provenance documentation, such as certificates of origin, maker's signatures, or regional seals, is used as an operational tool to establish legitimacy and cultural ownership. This construct also captures intangible elements, such as oral histories, community recognition, and the ethical values that guide batik production. The embedded narratives, stories of inspiration, meanings of motifs, and historical relevance are analyzed to determine how well they preserve the cultural integrity of Malay identity. Provenance authenticity thus serves as the interpretive dimension of the framework, connecting tangible craftsmanship to intangible heritage. Collectively, the three constructs operate synergistically, with innovation and technological integration serving as a mediating factor that influences how these authenticity dimensions contribute to cultural integrity and preservation within the evolving context of contemporary batik production.

Materials and Methods

The exploratory study will be conducted in six steps to answer Research Question 1 (RQ1) and Research Question 2 (RQ2) in a coherent sequence. First, the existing literature on authenticity, batik heritage, and technological adaptation will be mapped, and the four authenticity dimensions and the innovation construct will be established based on prior studies. Validity will be ensured through construct-aligned inclusion criteria, and reliability will be ensured through a documented search matrix. Each retained source will be linked to RQ1 or RQ2. Second, information-rich actors from production, certification, design, marketing, and policy settings will be purposively selected. Maximum variation will be applied to ensure that different regional batik traditions and levels of technological adoption are represented. A sampling protocol will be produced to allow the procedure to be repeated. Each actor will be tagged to either the authenticity dimensions in RQ1 or the innovation concerns in RQ2. Third, semi-structured interviews and field-based elicitation will be carried out using guides derived from the mapped constructs. Interviews will be recorded and transcribed. Field observations will be used to verify process claims. Validity will be enhanced through triangulation between interviews and field notes. A stable guide and verbatim transcription will support reliability. All data segments will be coded to either the four authenticity dimensions or the technology influence categories that relate to the two research questions.

Fourth, documentary and artefact analyses will be performed on selected batik items using an assessment sheet. Indicators for design, technique, provenance, and narrative context will be applied, and evidence of technological alteration will be recorded. Validity will be enhanced through comparison between artefact-level findings and interview statements. Reliability will be addressed through explicit indicator definitions and scoring rules. The outputs from this step will feed directly into the operational indicators required for RQ1 and the technology influence notes required for RQ2. Fifth,

all qualitative data will be thematically coded and displayed in matrices. Codes will be grouped into the four authenticity constructs that the study intends to operationalize. A separate code family will be created for innovation and technological integration. Validity will be pursued through constant comparison and saturation checks. Reliability will be pursued through codebook development and intercoder agreement procedures. The matrix will be used to assemble the draft authenticity framework that answers RQ1 and to map the influence of innovation that answers RQ2. Sixth, the draft framework will be subjected to member validation and expert review. The clarity, cultural adequacy, and feasibility of the indicators will be evaluated. Revisions will be logged to create an audit trail. Validity will be demonstrated when informants and experts confirm that the framework reflects real batik practices. Reliability will be demonstrated when the reviewed framework remains stable across reviewers. Alignment with both research questions will be demonstrated, as the finalised framework will include operational indicators of authenticity and explicit annotations on how technological integration affects authenticity in contemporary batik practice.

Results and Discussion

The findings of this study are anticipated to demonstrate that the authenticity of Malay traditional batik is a complex construct deeply influenced by design, technique, provenance, and narrative context. The proposed framework is expected to contribute to a structured evaluation process that integrates these four dimensions with clear operational indicators. Design authenticity will be reinforced through indicators capturing motif originality, color harmony, and symbolic continuity. These indicators will be grounded in the Cultural Authenticity Theory, which distinguishes between objective and existential authenticity, ensuring that both visual integrity and cultural meaning are maintained. The originality of motifs and adherence to regional symbolism will be assessed to verify that creative expressions remain rooted in Malay identity. Technical authenticity will ensure that traditional wax-resist and dyeing techniques remain central despite technological adaptations. The indicators developed under this dimension will measure the extent to which manual canting, natural dyes, and traditional layering methods are preserved. The Diffusion of Innovation Theory will guide this dimension by explaining how modern tools, such as digital patterning or eco-friendly dyeing, can be integrated into traditional processes without displacing artisanal expertise. Through these combined perspectives, tangible craftsmanship will be systematically validated to ensure that modernization strengthens rather than dilutes cultural identity.

Provenance authenticity will safeguard geographical and cultural traceability through documented artisan records, production origins, and community recognition. This dimension will operationalize cultural ownership by tracing each batik piece to its maker, locality, and heritage lineage. The theoretical link to Cultural Authenticity Theory will ensure that provenance indicators emphasize both verifiable heritage documentation and the lived continuity of cultural practice. Narrative authenticity will integrate oral histories, symbolic interpretations, and motif stories to preserve intangible cultural meanings embedded in Malay identity. This integration will connect artisans' voices and regional histories to their creative expressions, reinforcing batik as a living cultural narrative. Together, the four dimensions of design, technical, provenance, and narrative authenticity will form an interdependent framework supported by theoretical

constructs that align preservation with adaptive innovation, ensuring that Malay traditional batik remains both culturally genuine and resilient in evolving creative contexts.

Conclusion

The conclusion of this study emphasizes that developing a framework to assess the authenticity of Malay traditional batik has provided a structured foundation for preserving and promoting Malaysia's cultural heritage. By integrating design, technical, provenance, and narrative dimensions, a comprehensive system of operational indicators has been established to evaluate the tangible and intangible values of batik. The proposed framework will demonstrate that authenticity cannot be reduced to visual form alone but must encompass production methods, lineage, and embedded cultural meanings. By embedding validity and reliability at each methodological stage, the framework has ensured that the findings are both credible and replicable. The systematic linkage between traditional craftsmanship and cultural narrative has shown that authenticity is sustained when artisanship, symbolism, and provenance are preserved in harmony with historical continuity and social identity. The study has further indicated that innovation and technological integration must be approached as dynamic components that influence authenticity rather than as external disruptions. The careful application of digital tools, sustainable materials, and design technologies has been shown to support cultural preservation when aligned with traditional values. On the contrary, unregulated technological interventions risk diluting batik's cultural essence and undermining its symbolic integrity. The integration of cultural authenticity theory and diffusion of innovation theory has offered a balanced analytical perspective, revealing that sustainable preservation depends on adaptive continuity rather than resistance to change. Overall, the findings have contributed to a more comprehensive understanding of authenticity in traditional craft scholarship, providing a replicable model for cultural industries seeking to protect heritage while engaging with modernization in a responsible and culturally grounded manner.

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Conflict of interest

The authors confirm that there is no conflict of interest involved with any parties in this manuscript.

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