

Integrating Sustainability and Innovation in Cultural Heritage: A Case Study of a Malaysian Batik-Based SME

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ABSTRACT

Small and medium enterprises (SMEs) are vital contributors to economic development and cultural sustainability, particularly in emerging economies like Malaysia. Within the textile sector, batik represents a significant element of national identity and traditional craftsmanship, yet faces challenges from global competition, changing consumer preferences, and the rise of mass-produced fashion. This study examines how a Malaysian batik-based fashion SME integrates cultural heritage preservation with sustainability and innovation to remain competitive in the modern fashion industry. Adopting a qualitative descriptive case study design, the research draws on multiple data sources, including semi-structured interviews with key stakeholders, review of company documents, and direct observations of production and customer engagement activities. The analysis employs a SWOT framework to identify internal strengths and weaknesses alongside external opportunities and threats that shape the SME's strategic decisions. Findings reveal that the SME's strengths lie in its unique, culturally inspired designs, in-house production processes that ensure quality and authenticity, a loyal customer base, and proactive sustainability measures such as material repurpose. Key challenges include limited physical visibility due to its production location, small-scale production capacity which constrains scalability, and reliance on imported raw materials susceptible to supply chain disruptions. Opportunities are identified in leveraging digital marketing, expanding e-commerce channels, and capitalizing on Malaysia's growing cultural tourism sector. Threats stem from intense market competition, economic volatility affecting consumer spending, and shifting fashion trends among younger demographics.

This study contributes to the literature on cultural entrepreneurship and sustainable fashion by illustrating how traditional craft-based SMEs can adapt and thrive through innovation and strategic resource utilization. Practical implications suggest that policymakers should support such enterprises through capacity-building programs, incentives for local sourcing, and digital upskilling initiatives. The paper concludes by highlighting the importance of balancing cultural preservation with modern business practices and suggests avenues for future comparative research across Southeast Asian craft industries.

Keywords: SME, batik, cultural heritage, sustainability, Malaysia, fashion industry, entrepreneurship

INTRODUCTION

Small and medium enterprises (SMEs) are recognized globally as engines of economic growth, employment generation, and innovation (OECD, 2021). In developing economies, SMEs account for a significant portion of industrial output and are key players in fostering regional development. In Malaysia, SMEs constitute more than 97% of total business establishments and contribute substantially to GDP and employment (SME Corp Malaysia, 2022). Beyond their economic impact, SMEs in cultural industries play a vital role in preserving and transmitting traditional knowledge and practices, including textile arts such as batik (Ismail et al., 2020).

Batik, as a traditional textile dyeing technique, holds deep cultural significance across Southeast Asia, especially in Malaysia. Small and medium enterprises (SMEs) are globally recognized as key drivers of economic growth, job creation, and innovation (OECD, 2021). In Malaysia, SMEs make up over 97% of all businesses and play a crucial role in GDP and employment (SME Corp Malaysia, 2022). Cultural SMEs, especially in textiles like batik, also help preserve traditional knowledge and heritage (Ismail et al., 2020). Batik is a traditional dyeing art with deep cultural roots in Southeast Asia. While Indonesian batik has global fame and UNESCO recognition, Malaysian batik is unique for its local nature-inspired designs (Zakaria, 2022). However, traditional batik faces threats from globalization, fast fashion, and waning interest among youth (Rahim et al., 2022). Many artisans now struggle to maintain their craft.

Growing interest in sustainability and ethical fashion has opened new paths for traditional crafts. Slow fashion values like handmade quality and eco-friendly methods—align with batik making (Sharma & Sheth, 2022). SMEs must blend tradition with innovation to stay relevant while keeping cultural integrity (Lee & Chen, 2021). Digital tools such as social media, e-commerce, and influencer marketing—are now essential for fashion SMEs to grow their markets and share their cultural stories (Yusoff & Ibrahim, 2023). Yet, many traditional SMEs still lack the digital skills and strategy to take full advantage of these platforms.

LITERATURE REVIEW

This paper explores how a Malaysian batik-based fashion SME merges cultural preservation, sustainable practices, and innovative business models to remain competitive in today's fast-changing fashion world. This study offers useful insights to entrepreneurs, policymakers, and researchers focused on cultural industries and sustainable development.

Cultural entrepreneurship focuses on how businesses preserve, produce, and share cultural products while making a living (Alvarez & Barney, 2020). For traditional crafts, entrepreneurs must balance keeping authenticity with meeting market needs (Raymond & St-Pierre, 2021). Batik, as a cultural product, blends art and history, making it ideal for unique branding in fashion.

Around the world, traditional textile industries have been revived through creative business methods. In India, handloom businesses highlight organic materials and fair trade to attract ethical buyers (Kumar & Bhaduri, 2021). In Latin America, local cooperatives partner with designers to sell handmade clothes to global niche markets (Ellen & Raymond, 2018).

More consumers now care about the environment, making sustainable fashion important. Slow fashion supports durability, craftsmanship, and fair labor, which fits well with batik production (Sharma & Sheth, 2022). But shifting to a sustainable model is not easy—SMEs face higher costs, the need to educate customers, and get certifications (Lee & Chen, 2021). Common eco-practices include using natural fibers, eco dyes, and reducing waste (Muthu, 2020).

In Malaysia, batik is a symbol of cultural identity. But challenges exist: limited raw materials, few skilled artisans, and cheap machine-printed copies (Ismail et al., 2020; Rahim et al., 2022). Indonesia has had more success globally, thanks to strong government support through tourism and expos (Zakaria, 2022). Tourism helps promote traditional crafts. Tourists often want authentic local items, increasing demand for handmade batik (Yusoff & Ibrahim, 2023). Offering workshops and demonstrations boosts income and spreads awareness of batik's value.

Digital platforms have changed how SMEs sell and market. Social media lets small brands reach global buyers with low costs (Kaplan & Haenlein, 2019). E-commerce also helps SMEs sell directly to customers, skipping middlemen (Zhu & Kraemer, 2020). Still, many SMEs struggle with tech skills, shipping, and payment systems (Yusoff & Ibrahim, 2023).

Using Resource-Based View (RBV): Unique cultural assets (e.g., batik patterns, artisan skills) give SMEs a market edge (Barney, 1991). Dynamic Capabilities: SMEs must adapt their skills, products, and strategies to

survive in fast-changing markets (Teece et al., 1997, 2016). For batik SMEs, using cultural heritage and adapting to market shifts are both essential for success.

Today's customers want to be part of the product story. They take part through custom designs, workshops, and social media (Pralhad & Ramaswamy, 2004). This builds authenticity and loyalty, which is key for creative industries (Hoyer et al., 2010). In Thailand, Silk SMEs blend tradition and modern design, supported by programs like OTOP (Phongphit et al., 2020). While in Japan, Nishijin weavers use e-commerce while keeping centuries-old methods (Nishikawa, 2018).

These show how policies and community efforts can help crafts survive in a global market.

Sustainable SMEs must balance social, environmental, and economic goals (Elkington, 1998; Muthu, 2020). Competing with fast fashion is tough, but clear communication about sustainability builds trust and justifies higher prices (Kozlowski et al., 2019). Craft SMEs often face digital challenges like low tech skills, lack of funds, and resistance to change (Zhu & Kraemer, 2005; Yusoff & Ibrahim, 2023). Training and better infrastructure are needed to help these businesses grow online.

METHODOLOGY

This study adopts a qualitative descriptive case study design to explore how a Malaysian batik-based fashion SME integrates cultural heritage with sustainability and innovation. The case study method allows for an in-depth understanding of strategies within a real-life context (Yin, 2018).

A qualitative descriptive approach provides a straightforward summary of events and practices without imposing complex theoretical frameworks (Sandelowski, 2000). A single SME was purposefully selected due to its active role in preserving traditional batik while employing modern business practices. Data was gathered through semi-structured interviews with the SME owner, company documents, and observations of the production process and customer interactions. Interviews focused on design choices, sustainability efforts, and business challenges. Document review included marketing materials and operational records. Thematic coding was conducted using the SWOT framework (Braun & Clarke, 2006). Codes were organized to identify internal strengths and weaknesses and external opportunities and threats. Triangulation ensured credibility by comparing insights across data sources.

Credibility was reinforced through member checking, where key findings were shared with the SME owner for validation. Audit trail documented research steps, and reflexive journaling helped minimize researcher bias (Lincoln & Guba, 1985). Participants gave informed consent and were assured confidentiality. Ethical approval was obtained prior to data collection. Participants avoid using actual names to protect identities. While the single-case design limits generalizability, it offers valuable insights for similar SMEs. Future studies could examine multiple cases for broader perspectives.

DISCUSSION AND FINDINGS

The SME integrates Malaysia's cultural motifs into modern batik designs, appealing to both local and international customers. It maintains high-quality craftsmanship through an in-house production process, ensuring authenticity and sustainability (Ismail et al., 2020). A loyal customer base and sustainable practices, such as repurposing materials, are notable strengths. Weaknesses include limited physical visibility due to a studio location, small-scale production limiting scalability, and dependency on imported materials, which exposes the business to external risks. Opportunities include growing cultural tourism and expanding reach through digital marketing (Yusoff & Ibrahim, 2023). Threats are high competition, economic downturns, and changing fashion trends.

The case study findings reveal how the Malaysian batik-based fashion SME operationalizes its mission to preserve cultural heritage while maintaining commercial viability. The findings are organized thematically according to the SWOT framework and enriched with observational and narrative details drawn from multiple data sources.

Strengths

A major strength lies in the SME's commitment to authentic, hand-crafted batik designs that reflect local motifs and cultural stories. Patterns inspired by local flora, historical sites, and community legends differentiate its products from mass-produced alternatives. Observations at the production studio showed skilled artisans performing canting and block printing, demonstrating craftsmanship that customers appreciate and are willing to pay a premium for. The SME also controls the entire production cycle, ensuring consistent quality and fostering a unique brand identity tied closely to Malaysia's cultural image. Customer loyalty emerged as another key strength. Interview data highlighted repeat purchases and positive word-of-mouth marketing. Many customers value the transparency of the batik-making process and the opportunity to engage with artisans during workshops. These experiences enhance emotional attachment to the brand.

Weaknesses

Despite its cultural assets, the SME faces internal constraints. Limited production capacity—due to reliance on a small artisan workforce restricts scalability. Field observations confirmed that output is labor-intensive and time-consuming, with daily production averaging 20 to 30 garments. The workshop's location on the upper floor of a low traffic building further reduces spontaneous foot traffic, requiring greater reliance on digital outreach to drive customer visits. Dependence on imported materials also poses a weakness. Interviewees expressed concern about rising costs and supply disruptions, particularly for specialty dyes and high-quality fabric sourced from regional suppliers.

Opportunities

The SME has actively explored opportunities to expand its market through digital transformation. It maintains active social media profiles, hosts live-stream sales and collaborates with influencers to reach younger demographics. E-commerce has opened access to national and regional customers beyond its physical location. Malaysia's positioning as a cultural tourism hub also provides growth potential. The SME organizes batik workshops for tourists, which not only generate additional income but also promote cultural education. Visitors participate in hands-on activities, creating their own batik pieces, which they often share on social media, amplifying the brand's reach organically.

Despite the constraints, many opportunities are emerging for batik entrepreneurs. Growing awareness of sustainability, expanding digital marketplaces, and the rise of cultural tourism all present new paths forward. Through the Dynamic Capabilities lens, the SME's willingness to experiment with digital marketing and online storytelling reflects its effort to sense and seize these new opportunities.

The company can learn valuable lessons from its regional counterparts. Indonesia's batik clusters, for instance, benefit from strong national branding and UNESCO heritage recognition. Similarly, Japan's communities show how tradition and technology can coexist, resulting in global demand for high-quality cultural products. These regional models highlight how coordinated policy and support systems can strengthen Malaysia's creative SME ecosystem.

Threats

Market competition is intensifying as cheaper, machine-printed batik products flood the market, both online and in tourist-heavy areas. Interviewees noted that some customers struggle to distinguish authentic handmade batiks from imitations, which can dilute brand value. Economic fluctuations also threaten sales, as batik apparel is considered a discretionary purchase. The COVID-19 pandemic severely impacted tourism-dependent revenues, underscoring the SME's vulnerability to external shocks. Additionally, shifting consumer taste, especially among young urban buyers drawn to Western fast fashion necessitates constant design innovation to maintain relevance.

Overall, the SME demonstrates resilience and adaptability by leveraging its cultural heritage, engaging in sustainable practices, and harnessing digital tools to overcome internal limitations. The strategic integration of

batik workshops into the tourism offering and the use of online platforms illustrate how traditional SMEs can modernize without sacrificing authenticity. These findings align with broader literature on cultural entrepreneurship and sustainable fashion.

This SME case illustrates how cultural businesses can adopt sustainability and innovation to stay relevant (Sharma & Sheth, 2022). Digital marketing overcomes location limitations (Yusoff & Ibrahim, 2023), while tourism collaborations enhance cultural storytelling. However, production scalability needs support via local sourcing and artisan skill development (Rahim et al., 2022). Policies supporting cultural SMEs promote both economic and social sustainability (OECD, 2021).

This Malaysian batik SME shows how traditional crafts can modernize while preserving authenticity (Alvarez & Barney, 2020). The strategic use of cultural resources heritage motifs, artisanal skills provide competitive advantage (Barney, 1991), supporting premium positioning through authenticity (Rahim et al., 2022). The SME's sustainable practices (e.g., material repurpose, slow production) align with slow fashion principles, attracting ethical consumers (Lee & Chen, 2021; Muthu, 2020) and supporting environmental and community goals.

Digital transformation is vital: social media, live sales, and online platforms help SMEs reach broader markets (Yusoff & Ibrahim, 2023), though this requires content innovation, engagement, and digital literacy investment. Cultural tourism integration such as workshops generates income and educates visitors, aligning with local tourism goals (Ismail et al., 2020).

Challenges include production limitations and import dependency, suggesting the need for artisan training and local supply chain development (Rahim et al., 2022). Policy support capacity-building, sustainable material grants, and market exposure platform can improve SME resilience and scalability (Zakaria, 2022).

Effective heritage management involves stakeholder collaboration, empowerment, and adaptive reuse of heritage sites. These strategies ensure that heritage sites are preserved while being economically viable (Chong & Balasingam, 2019). For practitioners, balancing heritage with innovation via sustainable methods, digital tools, and tourism engagement offers a path to relevance. Cultural preservation and modern strategies can coexist to ensure long-term success. Future research should explore multiple Southeast Asian cases for broader insights.

CONCLUSION AND FUTURE RESEARCH

Leverage cultural assets: Use authentic designs, local motifs, and traditional techniques in branding. Storytelling enhances product value and brand differentiation. **Adopt sustainable practices:** Implement waste reduction, material reuse, and eco-friendly packaging. Train staff and source materials locally to lower costs and mitigate supply risks.

Embrace digital transformation: Build online sales channels, maintain active social media, and showcase behind-the-scenes content. Use influencers and live streaming to attract younger customers; invest in digital marketing skills. **Integrate cultural experiences:** Offer workshops or events to generate income. This case study shows how a Malaysian batik SME integrates heritage, sustainability, and innovation in the modern fashion industry. Through authentic craftsmanship and full production control, it achieves quality and customer trust. The SME's slow fashion approach repurposing materials, reducing waste, and educating consumers enhances both sustainability and market appeal. Digital platforms expand market reach beyond physical boundaries.

Key challenges production capacity and import reliance highlight the need for supportive policies in training and local sourcing. Cultural tourism has proven to be an effective diversification strategy. Thus, entrepreneurs should leverage cultural assets such as traditional motifs, storytelling, and craftsmanship that could be considered as strategic branding tools. Adopting sustainable practices, including circular production and eco-friendly packaging, can reduce costs while enhancing market credibility. Policymakers, on the other hand, are encouraged to create dedicated support programs that promote local sourcing, digital transformation, and sustainable innovation among creative SMEs.

Future studies should expand beyond a single case to include a broader range of cultural enterprises across different Malaysian states and Southeast Asian countries. A comparative, multi-case approach could provide richer insights into regional differences and shared challenges among cultural SMEs. Employing mixed method designs such as surveys, focus groups, and interviews with artists, consumers, and policymakers would enhance data triangulation and strengthen the generalizability of findings.

Researchers are also encouraged to explore how government initiatives, design innovation, and digital technologies intersect to foster cultural sustainability. Comparative studies across ASEAN countries could identify best practices for balancing cultural preservation with commercial viability. Such research would contribute to both theoretical development in cultural entrepreneurship and the formulation of policies that ensure the long-term sustainability of traditional industries in the digital era.

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