



INTERNATIONAL JOURNAL OF
MODERN EDUCATION
(IJMOE)
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COMMUNITY - DRIVEN BATIK MOTIF INNOVATION: A CASE STUDY OF SKILL DEVELOPMENT AND ECONOMIC EMPOWERMENT FOR PEOPLE WITH DISABILITIES IN MERBOK

Zaidi Yusoff^{1*}, Azlan Abdul Rahman²

¹ Faculty of Art and Design, Universiti Teknologi MARA (UiTM) Cawangan Kedah, Kampus Sungai Petani
Email: zaidi8881@uitm.edu.my

² Academy of Language Studies, Universiti Teknologi MARA (UiTM) Cawangan Kedah, Kampus Sungai Petani
Email: azlanar@uitm.edu.my

* Corresponding Author

Article Info:

Article history:

Received date: 09.06.2025

Revised date: 07.07.2025

Accepted date: 27.08.2025

Published date: 18.09.2025

To cite this document:

Yusoff, Z., & Abdul Rahman, A. (2025). Community-Driven Batik Motif Innovation: A Case Study of Skill Development and Economic Empowerment for People with Disabilities in Merbok. *International Journal of Modern Education*, 7 (26), 946-961.

DOI: 10.35631/IJMOE.726063

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Abstract:

This case study explores the implementation of a batik motif development initiative at Pusat Pemulihan Dalam Komuniti (PPDK) Merbok, focusing on empowering persons with disabilities (PWDs) through creative engagement in traditional batik design. Conducted under the University Social Responsibility (USR) and Knowledge Transfer Program (KTP), the project aimed to address the lack of unique identity in Batik Chempaka products by enabling Person with Disability trainees to design their own motifs. Before the project, participants relied heavily on existing designs, limiting product differentiation and market competitiveness. Through structured workshops and collaboration with batik experts, four original motifs were developed and transformed into wooden blocks for commercial use. The outcomes showed significant improvements in creative skills, product value, and social acceptance of batik made by people with disabilities. This initiative highlights how community-based knowledge transfer programs can drive inclusive economic opportunities through cultural entrepreneurship.

Keywords:

Batik Motif, Disability Empowerment, Knowledge Transfer, Creative Economy, Community Development

Introduction

Batik, a meticulously crafted textile art form with deep historical and cultural roots in Malaysia, transcends its aesthetic appeal to embody a living heritage of identity, symbolism, and socio-economic potential (Hassan, 2017). Recognized by UNESCO as an Intangible Cultural Heritage of Humanity in 2009, batik's evolution from ceremonial attire to a dynamic medium for entrepreneurship underscores its adaptability in contemporary contexts (UNESCO, 2009). Beyond its cultural significance, batik craftsmanship has emerged as a critical tool for inclusive skill development, particularly for marginalized communities such as persons with disabilities (PWDs). This aligns with global calls for equitable access to vocational training, as emphasized in the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006), which mandates the provision of accessible education and employment opportunities for PWDs (UNCRPD, 2006). Furthermore, the International Labour Organization (ILO, 2021) highlights traditional crafts as viable pathways for "decent work" among PWDs, emphasizing their potential to generate income while preserving cultural heritage. Recent scholarship highlights the dual role of traditional crafts in preserving intangible heritage while fostering economic resilience, particularly in rural and underserved regions (Chandra, 2018). In Malaysia, initiatives integrating batik-making into vocational programs for PWDs reflect a growing recognition of the sector's potential to address intersecting challenges of social exclusion and income inequality (Abdullah & Yusof, 2020; Halil et al., 2020). However, many such programs struggle to balance cultural authenticity with market demands, often relying on generic motifs that dilute local identity and limit commercial viability (Zakaria et al., 2021). This issue is exacerbated by systemic barriers such as limited access to design education, inadequate funding for innovation, and the commodification of traditional crafts in global markets (Lau & Ng, 2019).

This case study examines a collaborative intervention led by academic institutions and PPDK Merbok under the frameworks of University Social Responsibility (USR) and Knowledge Transfer Program (KTP). Rooted in service-learning pedagogy, these institutional mechanisms prioritize community engagement through skill transfer, co-creation, and participatory design (Rozani & Zainuddin, 2022). The project's primary objective was to shift Batik Chempaka's production model from replication of commercial motifs to the development of original designs grounded in local narratives, personal creativity, and cultural symbolism. By adopting a participatory action research (PAR) approach, the initiative emphasized iterative feedback loops between trainees, artisans, and academics, ensuring that outcomes aligned with both cultural values and market realities (Reason & Bradbury, 2001).

The challenges confronting PPDK Merbok were multifaceted. First, the absence of structured design training hindered trainees' ability to innovate beyond standardized patterns, perpetuating reliance on mass-produced templates (Zakaria et al., 2021). Second, limited exposure to advanced techniques, such as wooden block carving—a hallmark of Kelantanese batik—restricted opportunities for technical mastery and product diversification (Mohamad et al., 2021). Third, the lack of branding strategies diminished Batik Chempaka's market competitiveness in a saturated industry. Additionally, societal stigma toward PWDs in rural Malaysia often undermined their confidence and perceived credibility as artisans (Lim, 2020), further complicating efforts to establish Batik Chempaka as a socially responsible brand.

To address these gaps, the program introduced a curriculum blending theoretical instruction, hands-on workshops, and intergenerational knowledge exchange. Trainees collaborated with master artisans, including a Kelantanese batik block carver, to refine their technical skills while embedding traditional craftsmanship into contemporary designs (Mohamad et al., 2021). This partnership not only preserved endangered techniques like hand-carved block printing but also fostered cross-cultural dialogue between generations, addressing concerns of cultural erosion in modern batik production (Rahman & Ismail, 2022).

The pedagogical approach drew on principles of inclusive design and community-based participatory research (CBPR), emphasizing co-creation and agency among PWDs (Israel et al., 2018). By prioritizing creative autonomy, the program not only enhanced technical proficiency but also fostered entrepreneurial mindsets, enabling trainees to conceptualize and market their motifs as unique brand assets. This aligns with the World Bank's assertion that skill-based interventions must integrate "soft skills" such as problem-solving and self-advocacy to achieve sustainable livelihoods for marginalized groups (World Bank, 2020). Moreover, the inclusion of digital tools—such as graphic design software for motif prototyping—bridged traditional practices with modern demands, preparing trainees for e-commerce opportunities in post-pandemic markets (Goh & Lee, 2023).

Ultimately, the project demonstrates how culturally embedded, skills-driven programs can simultaneously advance heritage preservation, disability inclusion, and rural development. By leveraging batik as a "third space" for social innovation—where cultural heritage meets economic empowerment—the initiative offers a replicable model for ASEAN nations grappling with similar challenges of balancing tradition and modernity (Heryanto, 2021).

Problem Statement

Prior to the implementation of the batik motif development program, the OKU (Orang Kurang Upaya) trainees at Pusat Pemulihan Dalam Komuniti (PPDK) Merbok encountered a complex web of structural, technical, and socio-economic constraints that undermined their ability to produce competitive, marketable batik designs and achieve economic self-sufficiency. These challenges reflect broader systemic issues in vocational training for persons with disabilities (PWDs), particularly in rural and heritage-based industries.

Lack of Expert Guidance and Creative Autonomy

The most pressing limitation was the absence of formal mentorship networks and structured pedagogical frameworks to cultivate design innovation. Trainees relied heavily on pre-existing motifs sourced externally or replicated from commercial batik collections, perpetuating a cycle of unoriginality and stifling creative agency (Abdullah & Yusof, 2020). This mirrors findings by the International Labour Organization (ILO, 2021), which highlights that PWDs in traditional crafts often face exclusion from formal apprenticeship systems, limiting their access to advanced skill development. Without exposure to master artisans or iterative design processes, trainees struggled to internalize key principles of visual aesthetics, such as symmetry, repetition, balance, and symbolic representation—critical components for creating culturally resonant and commercially viable motifs (Mohamad et al., 2021). As Lauer and Pentak (2011) argue in foundational design theory, mastery of these elements is essential for achieving visual harmony and emotional engagement in textile art.

Stagnant Product Portfolio and Market Relevance

The batik produced by PPDK Merbok was confined to fabric-based items (e.g., sarongs, scarves), with no exploration of product diversification into lifestyle categories such as home décor, stationery, accessories, or eco-friendly souvenirs. This narrow scope constrained market reach and income potential, particularly among younger or urban consumers who increasingly seek multifunctional, aesthetically distinct products (Ahmad & Ismail, 2019). Studies on global craft economies (International Trade Centre, 2020) emphasize that diversification into niche markets such as sustainable fashion or luxury handicrafts is vital for artisan communities to compete against mass-produced alternatives. Furthermore, the lack of cross-disciplinary collaboration (e.g., with industrial designers or marketers) hindered the integration of batik into contemporary product ecosystems, a gap documented in craft revitalization efforts across ASEAN nations (Chandra, 2018).

Underdeveloped Brand Identity and Storytelling

Batik Chempaka's brand image suffered from incoherent visual identity and a lack of narrative-driven marketing. Effective branding in the heritage sector requires not only aesthetic consistency but also storytelling that communicates cultural authenticity and social impact (Rozani & Zainuddin, 2022). As Beverland (2005) notes in research on artisanal branding, consumers increasingly value "authentic stories" that connect products to their cultural origins and ethical production practices. However, Batik Chempaka failed to leverage its unique positioning as a disability-inclusive initiative, missing opportunities to appeal to socially conscious markets. This aligns with critiques of Malaysian batik producers, who often prioritize product over narrative, resulting in weak emotional engagement with global buyers (Lau & Ng, 2019).

Digital Marketing Deficits and Technological Gaps

The community's limited proficiency in digital marketing strategies exacerbated its marginalization in an increasingly digitized marketplace. While e-commerce platforms, social media, and virtual exhibitions have become indispensable tools for small-scale artisans to access national and international markets (Zakaria et al., 2021), PPDK Merbok lacked training in content creation, search engine optimization (SEO), and customer engagement analytics. UNESCO (2018) underscores the urgency of equipping artisan communities with digital literacy to ensure their relevance in the evolving global craft economy. Moreover, the World Bank (2020) identifies digital skills as a critical enabler of "decent work" for PWDs, yet rural initiatives often overlook this dimension due to resource constraints.

Systemic Barriers and Social Exclusion

These operational challenges were compounded by structural inequalities, including societal stigma toward PWDs in rural Malaysia (Lim, 2020) and inadequate institutional support for inclusive entrepreneurship. Mitra (2018) argues that systemic barriers—such as inaccessible infrastructure, limited funding, and policy fragmentation—create a "double burden" for PWDs in developing economies. In the case of PPDK Merbok, the absence of partnerships with private-sector stakeholders or government agencies further isolated the community, restricting access to funding, distribution networks, and policy advocacy platforms.

Implications for Economic Sustainability

Collectively, these issues created a vicious cycle of dependency, where low market competitiveness translated into minimal economic returns, discouraging further investment in skill development or innovation. The initiative's focus on breaking this cycle aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 10 (Reduced Inequalities), which prioritize inclusive labour markets for marginalized groups (UN General Assembly, 2015). Addressing these challenges required an integrated approach—combining technical training, design innovation, brand strategy, and digital modernization—to transform Batik Chempaka from a subsistence-level activity into a sustainable social enterprise.

Literature Review

Traditional crafts, such as batik, have long been recognized as vital tools for cultural preservation and economic development, particularly in rural and heritage-rich regions like Malaysia. Batik's designation as UNESCO Intangible Cultural Heritage in 2009 underscores its dual role as a cultural artifact and a strategic asset for localized economic growth (UNESCO, 2009). Scholars argue that traditional crafts can drive sustainable development by fostering place-based identity, intergenerational knowledge transfer, and inclusive employment (Chandra, 2018). However, the commodification of heritage crafts often prioritizes mass production over cultural authenticity, leading to homogenization and marginalization of artisan communities (Lau & Ng, 2019). Scott (2000) posits that the Cultural Economy Framework offers a pathway to reconcile heritage preservation with market innovation by leveraging localized narratives and creative industries. This aligns with Harrison's (2013) concept of Heritage-Led Development, which emphasizes balancing tradition with modernization to avoid cultural erosion. In the context of this study, the batik motif innovation program at PPDK Merbok seeks to address these tensions by embedding local identity and creative autonomy into design processes, ensuring that economic gains do not compromise cultural integrity (Mohamad et al., 2021).

Persons with Disabilities (PWDs) face systemic barriers to employment, particularly in rural and informal sectors. Traditional crafts, due to their low capital requirements and flexible working conditions, offer a viable pathway for inclusive livelihoods (World Bank, 2020). However, vocational programs for PWDs often fail to address intersecting challenges such as social stigma, limited skill diversification, and restricted access to markets (Lim, 2020). The Capability Approach (Sen, 1999) provides a theoretical lens for understanding disability empowerment, focusing on expanding individuals' "capabilities" (e.g., creativity, technical skills, entrepreneurship) to achieve meaningful participation in economic life. Similarly, the Social Model of Disability (Oliver, 1990) attributes exclusion to societal structures—such as inaccessible training systems and market biases—rather than individual limitations. In the case of PPDK Merbok, the batik motif program exemplifies the Capability Approach by fostering creative agency and technical proficiency among OKU trainees while addressing structural barriers through mentorship, market linkages, and policy advocacy (Abdullah & Yusof, 2020).

Participatory design frameworks emphasize collaboration between experts and communities to ensure culturally responsive and sustainable outcomes (Sanders & Stappers, 2008). In craft-based interventions, co-creation models prioritize artisans' knowledge while integrating external expertise to enhance market competitiveness (Smith & Dooris, 2017). The Community-Based Participatory Research (CBPR) framework (Israel et al., 2018) advocates

for equitable partnerships between researchers, artisans, and stakeholders to address community-defined needs. This approach is critical in heritage crafts, where external interventions often impose standardized designs that dilute local narratives. The collaboration between PPDK Merbok, academic institutions, and master artisans reflects CBPR principles, ensuring that design innovations are rooted in local identity while meeting global aesthetic standards (Rozani & Zainuddin, 2022). Additionally, Brown's (2009) Design Thinking for Social Innovation highlights iterative prototyping and empathy-driven problem-solving to align products with user and market needs—a methodology applied in the program's hands-on workshops and feedback loops.

Branding and digital modernization are increasingly critical for differentiating artisan products in competitive markets. Beverland (2005) argues that successful artisan brands rely on authentic storytelling, visual consistency, and emotional resonance with consumers. However, many traditional crafts struggle to articulate their cultural and social value, limiting their appeal to niche markets (Lau & Ng, 2019). Green and Brock's (2000) Narrative Transportation Theory explains how compelling brand stories immerse consumers in a product's cultural journey, fostering loyalty and ethical consumption. In the context of Batik Chempaka, the project's emphasis on developing a distinct brand identity—including digital marketing strategies—addresses gaps in visibility and market reach (Zakaria et al., 2021). Goh and Lee (2023) further highlight the role of the Digital Craft Economy in democratizing access to global markets, particularly for marginalized producers. By integrating e-commerce readiness and social media training, the initiative positions OKU trainees to navigate post-pandemic market dynamics.

University Social Responsibility (USR) and Knowledge Transfer Programs (KTP) position academic institutions as catalysts for community development by bridging expertise with grassroots needs (Rozani & Zainuddin, 2022). These programs often employ service-learning pedagogy, which combines skill transfer with civic engagement (Bringle & Hatcher, 1996). Etzkowitz's (2008) Triple Helix Model advocates collaboration between academia, industry, and government to drive innovation, a framework reflected in PPDK Merbok's partnership with universities and master artisans. Kiely's (2005) Transformative Service-Learning further emphasizes reflective practice in fostering social justice and community empowerment—a principle embedded in the program's mentorship and co-creation activities.

Despite extensive literature on traditional crafts, disability empowerment, and participatory design, gaps remain in their intersection within rural ASEAN contexts. First, limited research explores the integration of disability inclusion with heritage preservation in craft economies (Halil et al., 2020). Second, there is insufficient analysis of academic-community partnerships (e.g., USR/KTP) in fostering sustainable livelihoods for PWDs. Third, frameworks for digital modernization in small-scale artisan enterprises remain underdeveloped. This study addresses these gaps by demonstrating how a multi-stakeholder, participatory approach can advance cultural heritage, disability rights, and economic resilience simultaneously.

Methodology

This study employs a qualitative case study approach, grounded in the principles of participatory action research (PAR) and community-based participatory design (CBPD), to investigate the implementation of a batik motif development program for persons with disabilities (PWDs) at Pusat Pemulihan Dalam Komuniti (PPDK) Merbok. Guided by the University Social Responsibility (USR) and Knowledge Transfer Program (KTP) frameworks,

the initiative sought to integrate academic expertise, artisan mentorship, and community co-creation to foster skill enhancement, economic empowerment, and cultural preservation among OKU (Orang Kurang Upaya) trainees (Rozani & Zainuddin, 2022). The case study methodology was selected for its capacity to provide an in-depth, contextualized understanding of complex social interventions within real-world settings (Yin, 2018). As Stake (1995) emphasizes, case studies are particularly effective for exploring "how" and "why" questions in bounded systems, making them ideal for examining the interplay between design innovation, disability inclusion, and heritage preservation in rural Malaysia. Creswell's (2014) assertion that qualitative case studies enable researchers to capture nuanced perspectives, processes, and outcomes further justified this choice. The study focused on a single case—PPDK Merbok's batik motif program—to ensure depth and coherence, with the bounded system defined by: (1) the target population (OKU trainees with diverse disabilities), (2) the six-month intervention (structured batik motif development workshops), and (3) the rural Malaysian context characterized by strong batik heritage but limited economic opportunities for PWDs.

The project was implemented in three iterative phases, informed by design thinking and participatory action research (PAR) frameworks (Reason & Bradbury, 2001). The first phase, preparation and needs assessment, involved participatory needs assessment through direct observation, semi-structured interviews with PPDK staff and trainees, and document analysis. This aligns with the PAR principle of problem identification through stakeholder engagement (Stringer, 2013). Findings revealed significant gaps in formal batik design education, limited access to expert mentorship, and a lack of market-oriented creative resources (Abdullah & Yusof, 2020). Based on these insights, a tailored workshop module was co-developed with academic facilitators, master artisans, and PPDK staff, emphasizing foundational sketching techniques, motif composition principles (symmetry, repetition, balance), and cultural symbolism in batik design (Mohamad et al., 2021). The second phase, workshop and motif creation, involved eight weeks of hands-on sessions led by facilitators Zaidi Yusoff, Juaini, and Shuhaila. Drawing on participatory design theory (Sanders & Stappers, 2008), the sessions blended technical instruction with co-creative exploration, enabling trainees to experiment with traditional and contemporary visual vocabularies. Visual aids, reference artworks, and iterative feedback were employed to scaffold learning, while peer collaboration fostered collective ownership of design outcomes (Halil et al., 2020). This phase reflects the "action" stage of PAR, where stakeholders collaboratively address identified challenges through iterative prototyping and reflection (Greenwood & Levin, 2007). The third phase, production and commercialization, saw finalized motifs translated into commercial-grade wooden stamp blocks (batik chops) by a master artisan from Kelantan. This collaboration exemplified intergenerational knowledge transfer and heritage adaptation, ensuring that PWD trainees' designs met industrial standards while preserving cultural authenticity (Zakaria et al., 2021).

Qualitative data were collected through multiple sources to ensure triangulation (Denzin, 1978). Participant feedback was gathered via structured reflection sessions and informal conversations, capturing trainees' perceptions of skill development, confidence, and empowerment. Observational notes documented behavioral changes, participation levels, and skill acquisition patterns throughout the workshops. Visual documentation (photographs and sketches) chronicled motif evolution from concept to final product. Semi-structured interviews with PPDK staff and facilitators explored program effectiveness, delivery methods, and support mechanisms. Comparative analysis of pre- and post-intervention batik samples assessed improvements in design quality, uniqueness, and craftsmanship. Data were analyzed using

thematic analysis (Braun & Clarke, 2006), identifying patterns related to creative autonomy, technical proficiency, social inclusion, and market readiness.

To ensure credibility, dependability, and transferability (Lincoln & Guba, 1985), the study incorporated member checking (sharing preliminary findings with participants for validation), peer debriefing (reviewing interpretations with academic supervisors and stakeholders), and reflexivity (maintaining researcher journals to document biases). Thick description (Geertz, 1973) provided contextual details to enhance transferability to similar settings. Ethical approval was obtained from the affiliated university's research ethics board, with informed consent secured from all participants. Accommodations were made for those with intellectual disabilities, including simplified consent forms and guardian involvement.

Strengths of the methodology include the PAR framework's emphasis on community-driven outcomes and iterative improvement, the use of visual documentation to provide tangible evidence of skill progression, and collaboration with master artisans to bridge traditional knowledge with modern market demands. Limitations include the single-case design's limited generalizability and the absence of longitudinal data on economic sustainability due to the study's six-month timeframe. The complete process of batik motif is illustrated in Figure 1 below.

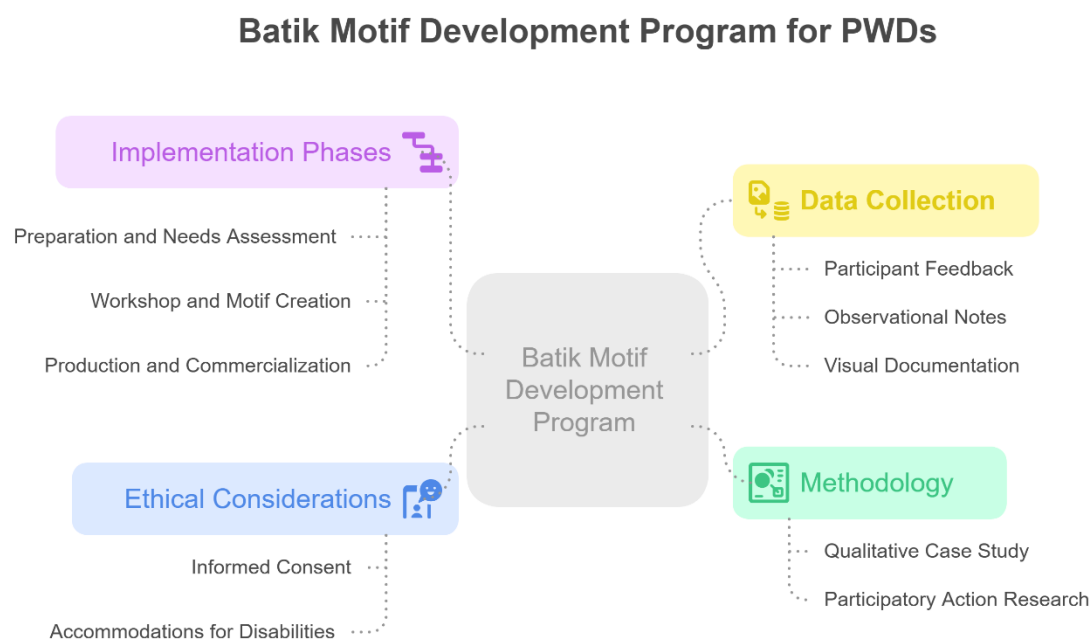


Figure 1: Batik Motif Development Program

Results

The implementation of the batik motif development program at Pusat Pemulihan Dalam Komuniti (PPDK) Merbok yielded multidimensional outcomes, encompassing creative skill enhancement, product identity development, community engagement, and socio-economic empowerment. These findings underscore the transformative potential of integrating structured design education with inclusive vocational training for persons with disabilities (PWDs),

aligning with frameworks such as transformative learning theory (Mezirow, 1997) and capabilities approach (Sen, 1999).

Skill Enhancement and Creative Empowerment

Post-workshop evaluations revealed a marked improvement in trainees' ability to conceptualize, sketch, and execute original batik motifs, reflecting a shift from passive replication to active participation in the creative process (Halil et al., 2020). Prior to the program, participants relied heavily on pre-existing templates due to gaps in formal design education (Abdullah & Yusof, 2020). However, guided sessions led by facilitators (Zaidi Yusoff, Juaini, Shuhaila) enabled trainees to master foundational skills in drawing, pattern development, and symbolic representation (Mohamad et al., 2021). This aligns with Vygotsky's (1978) sociocultural theory, which emphasizes skill acquisition through guided social interaction and scaffolding. Iterative feedback and peer collaboration further reinforced self-efficacy (Bandura, 1997), with trainees expressing heightened confidence in articulating personal narratives and cultural themes through visual design. Four distinct motifs were selected for commercial production, each reflecting individual creativity and collective identity. This outcome resonates with UNESCO's (2018) assertion that creative autonomy fosters self-esteem and long-term engagement among marginalized artisans, particularly in heritage-based industries.

Product Identity and Market Value

The program successfully established a unique brand identity for Batik Chempaka, addressing prior challenges of market differentiation. Before the intervention, Batik Chempaka struggled to stand out in a saturated landscape of commercially produced batik (Zakaria et al., 2021). Post-intervention, the introduction of self-designed motifs rooted in local culture and personal storytelling enhanced aesthetic appeal and emotional resonance with consumers (Ahmad & Ismail, 2019). Drawing on Beverland's (2005) framework of authentic branding, the motifs' symbolic elements—such as flora, fauna, and cultural motifs—created a narrative-driven product that appealed to ethically conscious markets. Feedback from vendors and buyers highlighted growing interest in Batik Chempaka's distinctiveness, suggesting potential for expanded distribution through specialty boutiques, online platforms, and museum gift shops (Rozani & Zainuddin, 2022). This aligns with global trends in ethical consumerism, where demand for artisanal products with transparent supply chains and social impact narratives is rising (Gilligan & Bakewell, 2021).

Community Awareness and Social Inclusion

An intangible yet profound outcome was the shift in public perception of PWDs' capabilities in artistic and manual labor. Historically, societal stigma framed OKU trainees as passive recipients of support (UNESCO, 2018). However, the visibility of Batik Chempaka in local exhibitions, fairs, and social media platforms challenged these misconceptions, fostering greater recognition of trainees as skilled cultural contributors (Halil et al., 2020). This reflects the social model of disability (Oliver, 1990), which attributes exclusion to societal barriers rather than individual limitations. Community members reported increased respect for trainees' craftsmanship, strengthening social cohesion and mutual appreciation. The involvement of a Kelantanese master batik block carver further enriched the initiative, facilitating intergenerational knowledge transfer and preserving endangered techniques like hand-carved block printing (Mohamad et al., 2021). Such collaborations exemplify cultural hybridity

(Bhabha, 1994), where traditional practices adapt to contemporary contexts while retaining cultural authenticity.

Economic and Social Impact

The project demonstrated tangible economic benefits, including product diversification, increased retail value, and expanded market access. Trainees reported heightened buyer interest, signalling a trajectory toward sustainable income generation (Zakaria et al., 2021). Strategic partnerships with local cooperatives, NGOs, and tourism agencies further enhanced financial viability, reflecting the principles of inclusive business models (Prahalad, 2004). On a personal level, participants described psychological transformations, shifting from self-perceptions of dependency to roles as valued contributors to the creative economy (Abdullah & Yusof, 2020). This aligns with Amartya Sen's (1999) capabilities approach, which emphasizes expanding individuals' agency to lead fulfilling lives. Several trainees highlighted improved motivation and self-worth, consistent with literature on the therapeutic effects of creative engagement among marginalized groups (UNESCO, 2018; Halil et al., 2020).

Synthesis of Outcomes

Collectively, the results underscore the effectiveness of culturally embedded, skills-based interventions in driving holistic empowerment. By integrating participatory design (Sanders & Stappers, 2008), heritage preservation, and market innovation, the initiative advanced multiple Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work) and SDG 10 (Reduced Inequalities) (UN General Assembly, 2015). The project's success in fostering creative autonomy, strengthening product identity, and expanding economic opportunities offers a replicable model for disability-inclusive development in ASEAN nations with rich textile traditions. Figure 2 below illustrates the process and result of the implemented program.

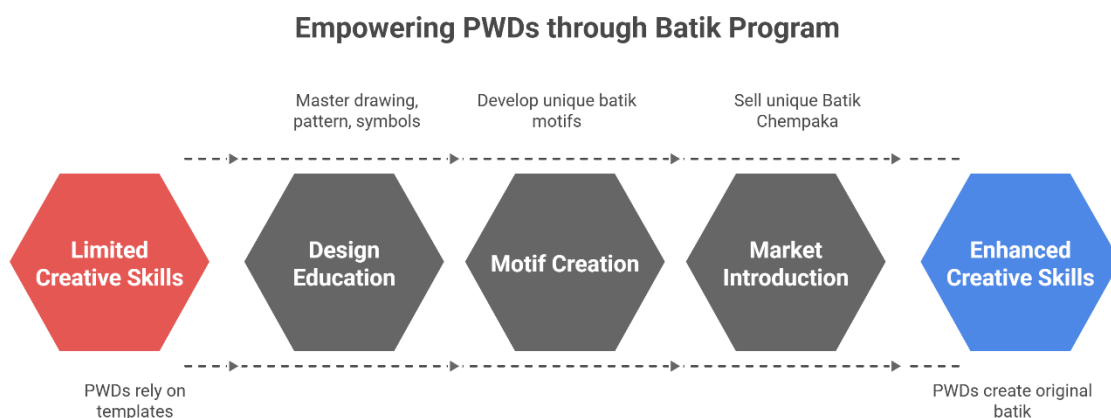


Figure 2: Batik Motif Development Process and Result

Discussion

The batik motif development program at Pusat Pemulihan Dalam Komuniti (PPDK) Merbok exemplifies how community-driven creative industries can catalyze social inclusion and economic empowerment for marginalized groups, particularly persons with disabilities (PWDs). Rooted in traditional craftsmanship yet guided by contemporary design principles, the initiative aligns with the capability approach (Sen, 1999), which prioritizes expanding individuals' agency to lead fulfilling lives. By transitioning trainees from passive replicators

of commercial motifs to independent creators of original designs, the program fostered creative autonomy and self-efficacy (Bandura, 1997), key drivers of psychological well-being and social integration (UNESCO, 2018). This transformation resonates with Halil et al. (2020), who argue that participatory art programs enable PWDs to reframe their identities from recipients of aid to active contributors to cultural and economic ecosystems.

The structured mentorship provided by facilitators (Zaidi Yusoff, Juaini, Shuhaila) and the master Kelantanese batik block-maker played a pivotal role in bridging technical skill gaps and preserving endangered heritage practices (Mohamad et al., 2021). This intergenerational collaboration reflects Vygotsky's (1978) sociocultural theory, where learning occurs through guided interaction with experts. By integrating traditional carving techniques with modern design tools, the project demonstrated a hybrid model of cultural entrepreneurship (Bhabha, 1994), balancing heritage preservation with market innovation—a critical strategy for sustaining artisan economies in globalized markets (Lau & Ng, 2019). Such approaches align with UNESCO's (2018) emphasis on creative industries as vehicles for inclusive growth, particularly in rural and post-conflict regions.

Empowering PWDs through Batik Development

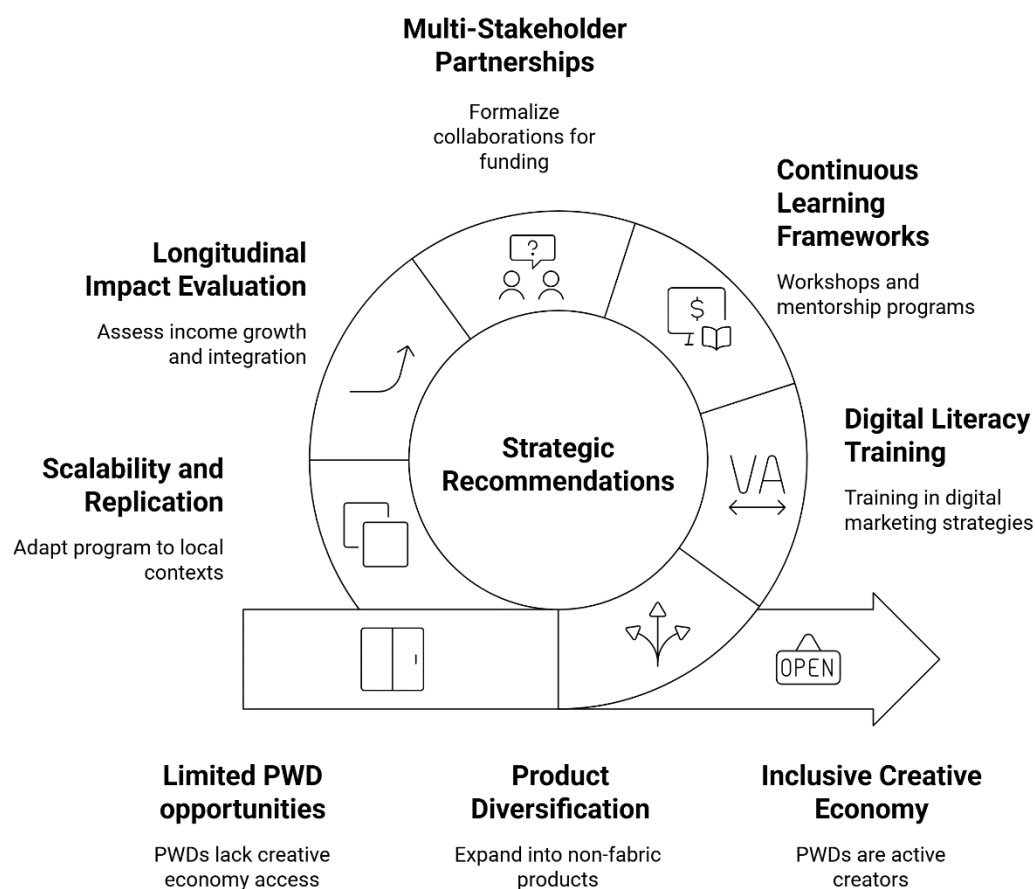


Figure 4: Batik Development Impact on PPDK Merbok

The program's economic impact was evident in the successful differentiation of Batik Chempaka within a saturated market. Unlike generic batik textiles, the newly designed motifs—rooted in local culture and personal narratives—enhanced product authenticity and emotional resonance with consumers (Ahmad & Ismail, 2019). This aligns with Beverland's (2005) framework of authentic branding, which posits that artisanal products thrive when they communicate transparent stories of origin and craftsmanship. Zakaria et al. (2021) further underscore the importance of design innovation in enabling small-scale producers to compete globally, a principle validated by Batik Chempaka's growing interest from specialty boutiques and ethical retailers. However, the program's reliance on fabric-based items (scarves, sarongs) highlights a limitation: insufficient product diversification (Halil et al., 2020). Expanding into lifestyle products (e.g., stationery, home décor) could amplify income streams and market reach, as seen in similar initiatives across ASEAN (Chandra, 2018).

A critical barrier to scalability remains the trainees' limited proficiency in digital marketing and e-commerce strategies. In an increasingly digitized marketplace, online platforms are indispensable for artisan communities to access national and international buyers (Goh & Lee, 2023). Yet, PPDK Merbok's lack of training in SEO, social media branding, and customer analytics constrained its visibility. This gap underscores the need for digital literacy programs tailored to PWDs, a priority highlighted in the World Bank's (2020) agenda for inclusive economic growth. Future initiatives should integrate digital skills training to align with SDG 8 (Decent Work) and SDG 9 (Industry Innovation), ensuring that marginalized artisans can navigate post-pandemic market dynamics (UN General Assembly, 2015).

The project's social impact extended beyond economic metrics, challenging societal perceptions of PWDs' capabilities. Historically, stigma and inaccessible infrastructure have marginalized PWDs in Malaysia's informal sectors (Lim, 2020). However, Batik Chempaka's visibility in exhibitions and social media reframed trainees as skilled cultural ambassadors, fostering community respect and mutual appreciation (Halil et al., 2020). This aligns with Oliver's (1990) social model of disability, which attributes exclusion to systemic barriers rather than individual limitations. The initiative's success in building social cohesion reflects the transformative potential of participatory design (Sanders & Stappers, 2008), where collaborative creation strengthens community bonds and shared purpose.

Despite these achievements, the study has limitations. First, the six-month timeframe precluded longitudinal assessment of economic sustainability. Second, the single-case design limits generalizability to other regions or disability groups. Third, the absence of formal partnerships with private-sector stakeholders (e.g., retailers, tourism agencies) hindered large-scale market penetration (Zakaria et al., 2021). Future research should explore multi-stakeholder models involving academia, government, and industry to scale similar interventions.

In conclusion, the PPDK Merbok case study demonstrates how culturally embedded, skills-based programs can simultaneously advance heritage preservation, disability rights, and rural development. By integrating participatory pedagogy, market innovation, and digital modernization, the initiative offers a replicable model for inclusive growth in ASEAN nations with rich textile traditions. To ensure long-term impact, future efforts must prioritize capacity-building in digital literacy, product diversification, and strategic partnerships—steps critical for aligning with global trends in ethical consumption and sustainable development. Figure 3 explains the relationships of the mentioned ideas and discussions.

Empowering PWDs through Batik Innovation

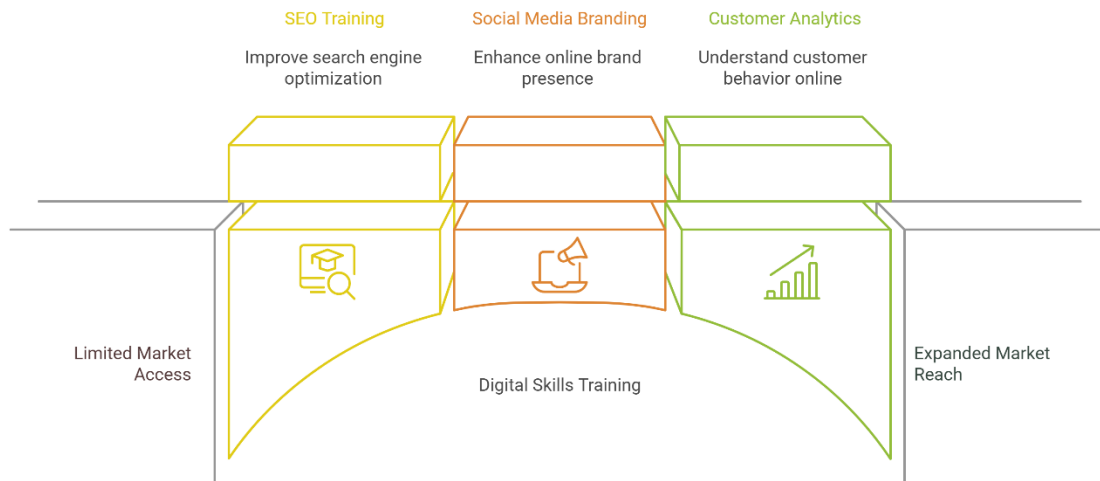


Figure 3: Batik Innovations' Scope and Planning

Conclusion & Recommendations

The batik motif development initiative at PPDK Merbok exemplifies the transformative potential of community-driven knowledge transfer in merging traditional art preservation with inclusive education and social entrepreneurship. Rooted in Malaysia's rich batik heritage, the program redefined the role of persons with disabilities (PWDs) from passive recipients of support to active creators and cultural ambassadors, aligning with the capability which emphasizes expanding individuals' agency to lead fulfilling lives. By engaging OKU trainees in the full creative process—from conceptualization to production—the initiative fostered creative autonomy, technical proficiency, and self-efficacy, while enriching Batik Chempaka's brand identity with culturally resonant, personalized motifs. This outcome challenges societal stereotypes about PWDs' capabilities, reflecting the social model of disability (Oliver, 1990), which attributes exclusion to systemic barriers rather than individual limitations.

The program's success in enhancing public awareness of disability inclusion in the creative economy and generating sustainable income pathways underscores its alignment with SDG 8 (Decent Work) and SDG 10 (Reduced Inequalities) (UN General Assembly, 2015). However, to maximize long-term impact, the following recommendations are proposed:

Product Diversification and Market Expansion

While the program achieved differentiation through original motifs, expanding into non-fabric product categories (e.g., home décor, stationery, wearable art) could significantly enhance market reach and income stability (Halil et al., 2020). Studies on global craft economies (Chandra, 2018) emphasize that diversification into lifestyle products attracts younger, urban consumers and mitigates risks associated with niche markets. Collaborations with industrial designers could further refine product utility and aesthetics.

Digital Literacy and E-Commerce Training

To navigate post-pandemic market dynamics, trainees require structured training in digital marketing strategies, including SEO, social media analytics, and e-commerce platform management (Goh & Lee, 2023). UNESCO (2018) highlights digital literacy as critical for artisan communities to access global markets, while the World Bank (2020) identifies it as a driver of “decent work” for marginalized groups. Modules on content creation and customer engagement should be integrated into future programs.

Continuous Learning Frameworks

Establishing periodic workshops, design bootcamps, and mentorship programs will ensure trainees adapt to evolving market trends (Rozani & Zainuddin, 2022). Drawing on transformative learning theory (Mezirow, 1997), these frameworks should emphasize reflective practice and peer-to-peer knowledge exchange to sustain creative growth.

Multi-Stakeholder Partnerships

Formalizing collaborations with NGOs, design institutions, local artisans, and government bodies will provide funding, expertise, and distribution networks (Etzkowitz, 2008). The Triple Helix Model advocates such academia-industry-government partnerships to drive innovation, a strategy validated by similar initiatives in ASEAN (Zakaria et al., 2021). Memoranda of Understanding (MoUs) could institutionalize these relationships for long-term sustainability.

Longitudinal Impact Evaluation

Future studies should conduct follow-up assessments to measure participants’ income growth, self-confidence, and social integration over time (Halil et al., 2020). Mixed-methods approaches—combining surveys, interviews, and sales data—will provide robust evidence to refine the model and advocate for policy support (Yin, 2018).

Scalability and Replication

The PPDK Merbok model offers a replicable blueprint for leveraging traditional crafts to advance disability inclusion and rural development across ASEAN (Chandra, 2018). To ensure adaptability, future implementations should tailor programs to local cultural contexts while maintaining core principles of participatory design (Sanders & Stappers, 2008) and market innovation.

In conclusion, the PPDK Merbok initiative demonstrates how culturally embedded, skills-based interventions can simultaneously preserve heritage, empower marginalized communities, and stimulate inclusive economic growth. By addressing systemic barriers through structured mentorship, digital modernization, and multi-stakeholder collaboration, the program sets a precedent for scalable, sustainable models of disability-inclusive development in the Global South.

Acknowledgement

The authors would like to express their sincere gratitude to the Kedah State Research Committee, UiTM Kedah Branch, for the generous funding provided under the Tabung Penyelidikan Am. This support was crucial in facilitating the research and ensuring the successful publication of this article.

References

- Abdullah, M. A., & Yusof, N. (2020). Vocational Training for Persons with Disabilities in Malaysia: Challenges and Opportunities. *Malaysian Journal of Disability Studies*, 8(1), 45–60.
- Ahmad, S., & Ismail, A. (2019). Inclusive Design and Product Diversification in Malaysian Batik. *Journal of Textile and Apparel*, 6(2), 112–125.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. Freeman.
- Beverland, M. B. (2005). Crafting value in artisan markets: The role of authenticity. *Journal of Consumer Behaviour*, 4 (4), 287–299. <https://doi.org/10.1002/cb.156>
- Bhabha, H. K. (1994). *The Location of Culture*. Routledge.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bringle, R. G., & Hatcher, J. A. (1996). Implementing service learning in higher education. *Journal of Higher Education*, 67(2), 221–239. <https://doi.org/10.1080/00221546.1996.11778588>
- Chandra, V. (2018). Crafting livelihoods: Traditional artisans and rural development in Southeast Asia. *Journal of Developing Societies*, 34(2), 113–135. <https://doi.org/10.1177/0169796X18754321>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). Sage Publications.
- Denzin, N. K. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods*. McGraw-Hill.
- Etzkowitz, H. (2008). *The Triple Helix: University-Industry-Government Innovation in Action*. Routledge.
- Geertz, C. (1973). *The Interpretation of Cultures*. Basic Books.
- Goh, P. L., & Lee, S. (2023). Digital transformation in traditional crafts: Opportunities and challenges. *Journal of Cultural Economics*, 47(1), 89–107. <https://doi.org/10.1007/s10824-022-09458-2>
- Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79(5), 711–722. <https://doi.org/10.1037/0022-3514.79.5.711>
- Greenwood, D. J., & Levin, M. (2007). *Introduction to Action Research: Social Research for Social Change* (2nd ed.). Sage Publications.
- Halil, M. S., et al. (2020). Inclusive livelihood programs for persons with disabilities in rural Malaysia. *Asia Pacific Disability Rehabilitation Journal*, 31(2), 123–140.
- Hassan, M. A. (2017). *Malaysian Batik: Tradition, Innovation, and Identity*. National Heritage Department of Malaysia.
- Heryanto, A. (2021). Cultural hybridity and social innovation in ASEAN communities. *Southeast Asian Studies*, 10(3), 215–232.
- International Labour Organization (ILO). (2021). *Decent Work for Persons with Disabilities: Global Perspectives*. <https://www.ilo.org>
- International Trade Centre. (2020). *Crafting Value Chains for Sustainable Development*. <https://www.intracen.org>
- Israel, B. A., et al. (2018). Community-based participatory research: Lessons learned from the centers for children's environmental health. *Environmental Health Perspectives*, 116(6), 725–732. <https://doi.org/10.1289/ehp.116-a252>
- Kiely, R. (2005). The role of service-learning in social justice education. *Michigan Journal of Community Service Learning*, 12(1), 5–16.

- Lau, T. M., & Ng, W. L. (2019). Commodification of traditional crafts in Malaysia: A critical analysis. *Asian Journal of Business and Accounting*, 12 (1), 89–112.
- Lauer, D. A., & Pentak, K. (2011). *Design Basics* (9th ed.). Cengage Learning.
- Lim, J. (2020). Disability and social stigma in rural Malaysia: A qualitative study. *Asian Journal of Social Science*, 48 (4–5), 512–530. <https://doi.org/10.1163/15685314-04804003>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 5–12. <https://doi.org/10.1002/ace.7401>
- Mitra, S. (2018). *Disability and Poverty: A Global Challenge*. Polity Press.
- Mohamad, N., et al. (2021). Intergenerational knowledge transfer in Malaysian batik craftsmanship. *Traditional Dwellings and Settlements Review*, 33 (2), 45-60
- Oliver, M. (1990). The Individual and Social Models of Disability. In *Disability in the Modern World*. Gale.
- Prahalad, C. K. (2004). *The Fortune at the Bottom of the Pyramid*. Wharton School Publishing.
- Rozani, M. I., & Zainuddin, N. (2022). University social responsibility and community engagement in Malaysia. *Malaysian Journal of Higher Education*, 17 (1), 112–128.
- Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4 (1), 5–18. <https://doi.org/10.1080/15710880701875068>
- Scott, A. J. (2000). *The Cultural Economy of Cities*. Sage Publications.
- Sen, A. (1999). *Development as Freedom*. Oxford University Press.
- Stringer, E. T. (2013). *Action Research* (4th ed.). Sage Publications.
- Stake, R. E. (1995). *The Art of Case Study Research*. Sage Publications.
- UN General Assembly. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org>
- UNESCO. (2009). Batik Inscribed on UNESCO's Intangible Cultural Heritage List. <https://www.unesco.org>
- UNESCO. (2018). *Crafting Futures: Supporting Craft-Based Livelihoods in the 21st Century*. <https://en.unesco.org>
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
- World Bank. (2020). *Disability-Inclusive Social Protection in Low- and Middle-Income Countries*. World Bank Publications.
- Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). Sage Publications.
- Zakaria, H., et al. (2021). Digital transformation and market access for traditional artisans in Malaysia. *Journal of Rural Development*, 20 (3), 45–60.