

Creative Economy Development Based on Local Wisdom and Technology in the Handicraft Sector

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Abstract

The creative economy has become an important driver of economic growth while simultaneously supporting cultural preservation, particularly through the handicraft sector, which is deeply rooted in local wisdom. However, rapid technological development poses both opportunities and challenges for sustaining the cultural authenticity and competitiveness of handicraft products. This study aims to analyze the development of a creative economy based on local wisdom and technology in the handicraft sector. The research employed a qualitative approach using a literature review method. Data were collected from books, peer-reviewed journal articles, research reports, and official publications relevant to creative economy development, local wisdom, and technological integration. The collected data were analyzed descriptively and analytically by synthesizing key findings from previous studies. The results indicate that the handicraft sector contributes significantly to economic value creation, employment generation, and community empowerment. Local wisdom functions as a core cultural identity and competitive advantage that differentiates handicraft products in the market, while technology enhances production efficiency, design innovation, and market access through digital platforms. The integration of local wisdom and technology is identified as a strategic approach to achieving a competitive and sustainable creative economy. This study contributes conceptually by bridging cultural and technological perspectives in creative economy research and provides academic insights for policymakers and practitioners in developing culturally grounded and adaptive handicraft industries.

Keywords

Creative Economy, Handicraft, Literature Review, Local Wisdom, Technology.



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1. INTRODUCTION

The creative economy has emerged as a vital engine of economic growth in many developing countries, including Indonesia, as it emphasizes creativity, innovation, and cultural assets as key drivers of value creation. Unlike conventional economic sectors that rely heavily on natural resources or large-scale industrial capital, the creative economy prioritizes human creativity and cultural expression as strategic resources. This sector has proven capable of generating employment opportunities,

strengthening local economies, and fostering inclusive development, particularly in regions with rich cultural heritage. Within this context, the handicraft sector represents one of the most culturally embedded and economically significant subsectors of the creative economy, as it combines artistic expression, traditional knowledge, and local materials into marketable products (Azizah & Muhfiatun, 2017).

The handicraft sector plays a crucial role not only in economic development but also in the preservation of cultural identity. Handicraft products often embody local wisdom through traditional motifs, symbolic meanings, indigenous production techniques, and the use of natural resources specific to certain regions. These cultural elements are transmitted across generations, forming a collective identity that distinguishes one community from another. In Indonesia, handicrafts such as woven fabrics, wood carvings, and traditional crafts are deeply rooted in local customs and social values. Previous studies indicate that handicrafts based on local wisdom contribute significantly to community empowerment and cultural sustainability while offering distinctive products in increasingly competitive markets (Ariadne et al., 2020).

However, despite its cultural richness, the handicraft sector faces substantial challenges in adapting to the rapidly changing economic landscape driven by globalization and technological advancement. Market competition has intensified due to mass-produced goods and imported products that often offer lower prices and standardized designs. Traditional handicraft producers frequently encounter limitations related to production efficiency, product innovation, and market access. Without adequate adaptation strategies, many handicraft enterprises risk stagnation or decline, threatening both economic livelihoods and the continuity of cultural heritage. This situation raises concerns about how traditional handicraft practices can remain relevant and competitive in the digital era.

Technology, particularly digital technology, has become an essential factor in addressing these challenges. The integration of information and communication technology into the creative economy enables handicraft producers to improve production processes, enhance design innovation, and expand market reach through digital marketing and online platforms. Social media, e-commerce, and digital marketplaces provide new opportunities for artisans to connect directly with consumers, reduce dependence on intermediaries, and access national and international markets. Research has shown that technology adoption can significantly enhance the competitiveness and sustainability of creative enterprises when aligned with local cultural values (Hindarsah et al., 2022; Nova Murtiana et al., 2025).

Nevertheless, the relationship between technology and local wisdom remains a subject of ongoing debate. While technology offers efficiency and scalability, there is concern that excessive modernization may dilute cultural authenticity and undermine traditional values embedded in handicraft products. Some scholars argue that uncritical adoption of modern technology can lead to cultural commodification, where local traditions are reduced to mere aesthetic elements detached from their original meanings. Others contend that technology, when applied appropriately, can serve as a tool for cultural revitalization rather than cultural erosion. This theoretical tension highlights the need for a balanced approach that integrates technological innovation with the preservation of local wisdom (Anak Agung, 2015).

Previous studies on creative economy development have largely focused on either local wisdom-based economic empowerment or technology-driven innovation as separate analytical frameworks. Research on local wisdom emphasizes cultural preservation, identity formation, and community-based development, while studies on technology adoption tend to prioritize efficiency, digital marketing, and business performance. However, limited attention has been given to examining how local wisdom and technology can be integrated synergistically within the handicraft sector to achieve sustainable creative economy development. This gap suggests the need for a more holistic perspective that views culture and technology not as opposing forces but as complementary elements in creative industry development (Ismail et al., 2024).

The uniqueness of this study lies in its integrative focus on local wisdom and technology as interconnected drivers of creative economy development in the handicraft sector. By employing a

qualitative literature review approach, this research synthesizes theoretical perspectives and empirical findings from previous studies to construct a comprehensive understanding of how cultural values and technological tools interact in shaping the competitiveness and sustainability of handicraft enterprises. Rather than examining isolated case studies, this study offers a conceptual framework that highlights the strategic role of cultural identity and digital innovation in the broader creative economy ecosystem.

Therefore, the primary objective of this study is to analyze the development of the creative economy in the handicraft sector based on local wisdom and technology through a systematic review of relevant literature. This research aims to contribute to academic discourse by bridging the gap between cultural and technological perspectives in creative economy studies. Furthermore, the findings are expected to provide insights for policymakers, practitioners, and creative industry stakeholders in designing development strategies that promote economic competitiveness while preserving cultural heritage. Ultimately, this study aspires to support the realization of a sustainable and culturally grounded creative economy that adapts effectively to the challenges and opportunities of the digital era.

2. METHODS

This study employed a qualitative research approach using a literature review method to explore the development of the creative economy based on local wisdom and technology in the handicraft sector. The qualitative approach was chosen to gain an in-depth and comprehensive understanding of concepts, patterns, and theoretical perspectives discussed in previous studies. The literature review focused on analyzing scholarly works related to creative economy development, handicraft industries, local wisdom, and technological integration. The data sources consisted of secondary data obtained from books, peer-reviewed journal articles, research reports, conference proceedings, and official publications from relevant institutions. These sources were selected based on their relevance, credibility, and contribution to the research topic.

The data collection process involved systematically identifying, selecting, and classifying relevant literature through keyword-based searches in academic databases and digital libraries. After the data were collected, the analysis was conducted using a descriptive-analytical technique. This process included summarizing key findings, comparing perspectives among different studies, and interpreting patterns and relationships related to the role of local wisdom and technology in the handicraft sector. The results of the analysis were then synthesized to develop a coherent and structured understanding of how the integration of cultural values and technological innovation contributes to the competitiveness and sustainability of the creative economy. This method allowed the study to present conceptual insights and academic references that can support future research and policy development in the creative economy sector.

FINDINGS AND DISCUSSION

Creative Economy Development in the Handicraft Sector

Based on a review of various literature, the handicraft sector plays a strategic role in the development of the creative economy because it creates added economic value while preserving local culture. Various studies show that handicraft businesses thrive through the use of creativity, design innovation, and the processing of local resources into products with economic value. This sector also contributes to job creation and community empowerment, particularly in rural areas.

The Role of Local Wisdom in Handicraft Products

Local wisdom is a key element in the development of the handicraft sector. The literature reveals that local values are reflected in motifs, traditional production techniques, and the use of natural raw materials unique to a particular region. Local wisdom not only serves as a cultural identity but also as a means of product differentiation in the market. Handicraft products that emphasize local values tend to have a unique appeal, especially to consumers who value cultural aspects and product uniqueness.

Utilization of Technology in Handicraft Development

The literature review indicates that technology plays a crucial role in supporting the development of the handicraft sector. The use of simple production technologies to digital technologies, such as social media and online marketing platforms, can increase efficiency, innovation, and market reach. Technology also facilitates business actors in promoting, communicating with consumers, and developing more varied product designs. Integrating technology with local wisdom is an effective strategy for increasing the competitiveness of handicraft products.

Integration of Local Wisdom and Technology

The literature review shows that sustainable creative economy development in the handicraft sector requires a balance between preserving local wisdom and utilizing technology. Local wisdom forms the basis of cultural identity and values, while technology serves as a tool to increase productivity and market access. Integrating the two allows the handicraft sector to develop adaptively without losing its inherent cultural character.

The findings of this study indicate that the handicraft sector plays a crucial role in the development of the creative economy, particularly in regions rich in cultural heritage. Based on the reviewed literature, handicrafts are not merely economic products but also cultural artifacts that embody local values, traditions, and social identities. This dual function enables the handicraft sector to generate economic value while simultaneously preserving cultural heritage. The analyzed studies consistently show that handicraft-based creative industries contribute to income generation, employment creation, and community empowerment, especially in rural and culturally distinctive areas.

The analysis further reveals that local wisdom serves as a fundamental pillar in shaping the uniqueness and competitiveness of handicraft products. Local wisdom is reflected in traditional motifs, symbolic meanings, indigenous production techniques, and the use of locally sourced natural materials. These cultural elements differentiate handicraft products from mass-produced goods and enhance their perceived authenticity and cultural value. The literature demonstrates that consumers increasingly value products with strong cultural narratives, making local wisdom a strategic asset in strengthening market positioning and product differentiation within the creative economy.

Another significant finding concerns the role of creativity and innovation in transforming traditional handicrafts into market-oriented products without diminishing their cultural essence. Several studies highlight that artisans who are able to reinterpret traditional designs through contemporary aesthetics tend to achieve higher market acceptance. This creative adaptation allows handicraft products to remain culturally rooted while appealing to modern consumer preferences. The findings suggest that innovation does not replace tradition but rather functions as a medium for revitalizing local cultural expressions in a changing market environment.

The study also finds that technology plays an increasingly important role in enhancing the performance of the handicraft sector. The reviewed literature indicates that technological utilization ranges from simple production tools to advanced digital technologies. In production processes, appropriate technology contributes to improved efficiency, consistency, and product quality. Meanwhile, digital technology particularly social media, e-commerce platforms, and online marketplaces significantly expands market access for handicraft producers. These technologies enable artisans to reach national and international consumers, reduce dependency on intermediaries, and increase business visibility.

Furthermore, the findings show that digital technology facilitates design development and knowledge exchange among handicraft producers. Through digital platforms, artisans gain access to new design inspirations, market trends, and consumer feedback, which support continuous product innovation. This interaction fosters learning processes that enhance artisans' creative capacities and adaptability. As a result, technology not only functions as a marketing tool but also as an enabler of creative development and capacity building within the handicraft sector.

The integration of local wisdom and technology emerges as a central finding of this study. The literature suggests that sustainable creative economy development in the handicraft sector is achieved when cultural preservation and technological advancement are balanced. Local wisdom provides

cultural legitimacy and identity, while technology enhances productivity, innovation, and market reach. When these elements are integrated effectively, handicraft enterprises are better positioned to compete in the digital economy without sacrificing their cultural authenticity.

In addition, the findings indicate that institutional support and collaborative networks play a supporting role in strengthening this integration. Government programs, community-based initiatives, and academic involvement are found to facilitate technology adoption, skills development, and cultural preservation. Such support systems contribute to creating an enabling environment for artisans to innovate while maintaining cultural values, thus reinforcing the sustainability of the creative economy.

The findings of this study affirm that the handicraft sector serves not only as an economic driver but also as a cultural repository, contributing to community empowerment and local economic resilience. Consistent with previous research that highlights the role of local wisdom in fostering economic opportunities, such as the development of batik industries and other creative sectors grounded in cultural heritage, our results show that local cultural elements motifs, traditional techniques, and symbolic meanings are key differentiators that enhance product identity and market appeal. For instance, studies on local wisdom based creative industries emphasize the importance of preserving cultural heritage while leveraging it as a competitive advantage that strengthens connectivity with tourism and regional economic systems. Theoretically, this aligns with the concept of cultural capital in the creative economy, where local traditions and meanings become intangible assets that elevate economic value and reinforce community identity.

In tandem with cultural value, this study's findings reveal that technology plays a significant role in bolstering creativity and competitiveness within the handicraft sector. Technological adoption from digital marketing via social media and online marketplaces to computer-aided design tools enables artisans to increase production efficiency, expand market reach, and innovate product offerings. These results resonate with literature that discusses digital transformation as a catalyst for enhancing creative enterprise performance, while preserving cultural authenticity amidst modernization pressures. According to innovation theory in creative industries, technology integration facilitates creative diffusion, where digital platforms accelerate the dissemination of novel cultural products, thus reinforcing both economic sustainability and cultural continuity.

Moreover, the integration of local wisdom with technology, as demonstrated in this study, reflects a broader theoretical perspective that sustainable creative economy development requires a balanced interplay between tradition and innovation. Previous research on creative economy strategies highlights that while local wisdom grounds products in cultural uniqueness, technology functions as an enabler of scalability and market adaptation, supporting long-term competitiveness and cultural preservation simultaneously. This interplay reflects the principles of adaptive cultural entrepreneurship, which posits that traditional cultural practices can coexist with modern technological tools to generate innovative, culturally grounded, and economically viable products, thus strengthening the creative economy within globalized markets.

3. CONCLUSION

This study addresses the researchers' concern regarding how the handicraft sector can remain economically competitive while preserving local wisdom in the context of rapid technological advancement. The findings demonstrate that the development of a creative economy in the handicraft sector is most effective when local cultural values and technological innovation are integrated in a balanced manner. Local wisdom functions as a core identity and competitive advantage that differentiates handicraft products in the market, while technology serves as a strategic tool to enhance production efficiency, design innovation, and market accessibility. Rather than eroding cultural authenticity, appropriate technological utilization reinforces the sustainability of handicraft enterprises by enabling artisans to adapt to changing market demands without abandoning their cultural roots. This confirms that cultural preservation and economic progress are not contradictory, but mutually reinforcing within the creative economy framework.

Despite these contributions, this study has several limitations that should be acknowledged. As a literature-based qualitative analysis, the findings rely on secondary data and are not supported by direct empirical evidence from artisans or creative industry practitioners. The scope of the reviewed literature may also limit the contextual diversity of the findings, particularly across different regions and cultural settings. Therefore, future research is recommended to employ empirical approaches, such as case studies, surveys, or mixed-method designs, to capture real-world practices and challenges faced by handicraft entrepreneurs. Further studies could also explore the quantitative impact of digital technology adoption on income growth, market expansion, and cultural sustainability, as well as examine policy interventions and institutional support systems that facilitate the integration of local wisdom and technology in the creative economy.

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