



# Optimizing the Local Creative Economy Based on Cultural Wisdom and Digital Technology

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## Abstract

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The creative economy is a strategic sector driven by innovation and local cultural values, playing an important role in national economic development. This study aims to analyze strategies for optimizing the local creative economy in Medan by integrating cultural wisdom and leveraging digital technology. The method used is qualitative descriptive with a literature study approach and observation of business actors in Medan. The results of the study show that the synergy between local cultural values and digital technology is a key factor in strengthening this sector. The use of digital technology, such as social media, e-commerce, and electronic payment systems, has proven to be able to expand market reach, increase competitiveness, and encourage product innovation rooted in local culture (such as songket and culinary specialties). In addition, digitization also functions as a medium for digital storytelling for cultural preservation. This optimization requires multi-stakeholder collaboration, where the government and community play an active role in improving digital literacy and supporting the ecosystem. Thus, the proper integration of culture and technology is a strategic step toward realizing a sustainable creative economy ecosystem and strengthening local identity in the digital era.

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## **1. Introduction**

The creative economy is a strategic sector that plays an important role in national economic development. In contrast to the conventional sector that depends on natural resources, the creative economy prioritizes human ideas, innovation, and creativity as its main assets (Wibowo et al., 2024). The sector offers great opportunities for communities to create new economic value through products and services rooted in the rich local culture. According to reports from the Creative Economy Agency (*Badan Ekonomi Kreatif*/BEKRAF) and the Central Statistics Agency (*Badan Pusat Statistik*/BPS), the creative economy contributes around 7.8% to the national Gross Domestic Product (GDP) and absorbs more than 20 million workers in various subsectors such as culinary, fashion, and handicrafts.

However, local creative economy actors still face significant challenges, especially in terms of the use of digital technology. Many local products have high cultural value but cannot compete widely due to limitations in marketing, product innovation, and access to digital platforms (Mukti, 2024). On the other hand, the development of digital technologies such as social media, e-commerce, electronic payment systems, and digital marketing strategies opens up great opportunities to introduce local products to national and international markets.

The city of Medan, as one of Indonesia's economic and cultural centers, has great potential to develop a creative economy based on local wisdom. Various products such as typical culinary, songket fabrics, ulos fabrics, and handicrafts have high cultural value and are a special attraction for tourists and local consumers (Firmansyah et al., 2024). However, to optimize this potential, it is necessary to

integrate local cultural values with appropriate digital technology. The use of technology not only aims to improve marketing efficiency, but also plays a very important role in preserving culture to remain relevant in the modern era (Kalfas et al., 2024).

Therefore, this study aims to analyze the strategy of optimizing the local creative economy based on cultural wisdom through the use of digital technology, focusing on its application in the city of Medan. This research is expected to provide an overview of the strategic steps that can be taken by the government, business actors, and the people of Medan in creating a sustainable creative economy ecosystem while strengthening the nation's cultural identity (Rahman & Hakim, 2024).

This high level of cultural diversity is directly proportional to the complexity of standardization efforts and the expansion of digital markets. Although businesses in Medan show significant creative potential, adapting to Industry 4.0 is not just about selling; This requires the ability to digitally package cultural narratives so that they are relevant to modern consumers who are technologically literate (Dellyana et al., 2023). Therefore, this research is crucial to identify the gap between the rich potential of local culture and the effective implementation of digital technologies.

However, to optimize this potential, integration between local cultural values and appropriate digital technologies is required. The use of technology not only aims to improve marketing efficiency, but also plays a very important role in preserving culture to remain relevant in the modern era. Therefore, this study aims to analyze the strategy of optimizing the local creative economy based on cultural wisdom

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## **2. Literature Review**

The creative economy is one of the important sectors in supporting sustainable national economic development. Unlike the natural resource-based sector, the creative economy relies on human ideas and innovation as the main capital to generate new economic value. In the global context, this sector has become a driver of the knowledge-based economy and plays a role in increasing the nation's competitiveness. In Indonesia, the contribution of the creative economy to the Gross Domestic Product (GDP) continues to increase, showing great potential in creating jobs and encouraging regional economic growth (Wibowo et al., 2024).

Digital transformation is a key element in strengthening the competitiveness of local creative economy actors. Digitalization allows businesses to expand market reach, increase production efficiency, and strengthen data-driven marketing strategies. However, there are still many challenges faced, especially in terms of limited access to technology, digital literacy skills, and low adoption of digital innovations at the MSME level (Mukti, 2024). Therefore, a targeted strategy is needed to integrate digital technology into culture-based creative economy practices.

The integration of local cultural values with digital innovation is an important factor in maintaining the relevance and sustainability of the creative economy in the midst of modernization. Local cultures such as songket, ulos, and handicrafts in Medan City, for example, not only have economic value but also function as symbols of the community's cultural identity (Firmansyah et al., 2024). The application of digital technologies can help document, promote, and distribute these products to global markets without losing their traditional value. In addition, government and educational institution support in encouraging digital literacy and inclusive policies are strategic aspects that need to be strengthened. An approach that combines local wisdom and technological innovation will produce a resilient, highly competitive, and deeply rooted creative economy ecosystem (Rahman & Hakim, 2024).

### **3. Method**

This research uses a quantitative approach with the aim of understanding measurably how creative economy actors in the city of Medan utilize digital technology in their business activities, preserve local cultural values, and face challenges and opportunities in the industrial era 4.0. Through this approach, data is collected in the form of statistics that can be analyzed statistically so that the results of the research are more objective and accountable. The research location is in the city of Medan, North Sumatra, which is known as one of the economic and cultural centers with many creative economy actors, ranging from songket and ulos cloth artisans, to typical culinary business actors and entrepreneurs who actively utilize social media and marketplaces.

The population in this study includes all creative economy actors in Medan City who have used digital technology in their production activities. The sampling technique was carried out by purposive sampling with the criteria that the business has been running for at least one year, using digital media in the marketing or production process, and actively operating in the Medan area. The planned sample count is between 50 and 100 respondents, adjusted to the Slovin formula for more accurate data representation. The research data sources consist of primary data obtained through Likert scale questionnaires and observations of digital activities, and secondary data derived from books, journals, BEKRAF and BPS reports, as well as official local government documents.

Data analysis was carried out using statistical software such as SPSS with the stages of data description, relationship testing, and intervariable influence analysis to find out the extent to which the use of digital technology affects the opportunities and sustainability of creative businesses. In addition, interactive analysis is also applied through the process of data reduction, presenting data in the form of narratives or tables, and drawing conclusions supported by verification and triangulation of sources. Triangulation is carried out both in terms of data source and collection time to ensure the validity of research results. The research subjects include cultural-based MSME actors such as artisans, traditional culinary actors, and ethnic fashion designers, as well as digital content creators and the government involved in the development of the creative economy in Medan. Through this method, the research is expected to be able to provide an empirical picture of the

synergy between digital technology and local cultural preservation as the foundation for strengthening a sustainable creative economy in Medan City.

#### **4. Results and Discussion**

The results of the study show that the integration between digital technology and local cultural wisdom has a significant impact on the development of the creative economy in the city of Medan. The application of digital technology not only expands the market, but also strengthens the local cultural identity in every creative product produced. Many creative economy actors who previously relied on conventional sales methods are now turning to digital platforms such as Instagram, TikTok, Shopee, and Tokopedia. This transformation has a positive impact on increasing sales, promotion efficiency, and expanding consumer reach at the national and international levels (Mukti, 2024).

Local cultural wisdom plays an important role in shaping the character and attractiveness of an area. In the context of the creative economy, these cultural values can be maintained and developed through the use of modern digital technology (Rosalina et al., 2024). For example, North Sumatra's songket and woven fabrics are now being created into contemporary fashion products without losing the authenticity of traditional motifs. Design technologies such as Canva and Adobe Illustrator facilitate local designers to blend traditional elements with modern trends so that products are more in demand by younger generations. Digital platforms such as YouTube and Instagram also serve as a medium of cultural documentation, where local artisans and culinary performers produce educational content about the process

of making traditional products and the philosophical values behind them. This makes technology not only a tool, but also a means of preserving and revitalizing regional culture.

The development of digital technology also has a great influence on the marketing strategies of creative economy actors. Social media is now the main channel for introducing culture-based products visually and interactively. The use of analytics data on digital platforms allows businesses to better understand consumer behavior, optimize promotional strategies, and effectively target specific market segments (Wibowo et al., 2024). The digital payment system also supports cross-border transactions and increases the accessibility of local products in the global market. In this case, technology is proven to strengthen marketing effectiveness and drive promotion cost efficiency.

In addition to the role of technology, the support of the government and local communities is also a major factor in creating a sustainable creative economy ecosystem. The Medan City Government through various programs such as MSME digitalization training, packaging workshops, and creative economy exhibitions has tried to increase the capacity of business actors. This innovative policy shows a real effort in strengthening the competitiveness of the creative economy in the digital era (Dellyana et al., 2023). On the other hand, the creative community plays a role in creating space for collaboration, sharing knowledge, and strengthening networks between business actors. Collaboration between the government, communities, and creative economy actors is an important foundation in building an adaptive and highly competitive creative ecosystem (Susilatun et al., 2023). Thus, the integration

of local culture, digital technology, and public policy support forms a strong synergy for the sustainability of the creative economy based on local wisdom in Medan.

**Table.1** Utilization of Technology in the Local Creative Economy

Field	Products	Technology The In Use	Impact
Culinary	Traditional food of the field	Gofood, Instagram	Up to 40% increase in sales
Fashion	Songket and terrain woven fabric	Marketplace, e-commerce	Expansion of national and global markets
Music	Songs Traditional Modern	Youtube, spotify	Increased exposure to local culture

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The transformation of the creative economy in Medan cannot run optimally without strong collaboration between the government, the creative community, academics, and business actors. The government plays a role as a facilitator in improving digital literacy and access to financing, while the creative community becomes a space for the exchange of ideas and cross-sector collaboration that strengthens the local economic ecosystem. This collaboration is important so that creative economy actors are able to compete in the digital era without losing the cultural identity that is the hallmark of the city of Medan. An inclusive ecosystem is

the main foundation in strengthening the growth of the creative economy based on local technology and culture (Dellyana et al., 2023).

Although digitalization brings great opportunities, creative economy actors still face various challenges, ranging from limited internet access in certain areas, low digital literacy, to lack of skills in professional content management. This challenge also includes the pressure of global competition that demands continuous innovation so that products have unique value and high competitiveness (Mukti, 2024). However, opportunities for creative economy development in Medan remain wide open in line with the improvement of digital infrastructure, digital skills-based training, and collaboration between the government, businesses, and the community. A culture-based approach combined with digital technology can produce sustainable economic innovations that not only improve people's welfare but also preserve local cultural values as national identity (Wibowo et al., 2024).

One of the main challenges in this process is maintaining a balance between innovation and cultural preservation. Many businesses face a dilemma between following the demands of the modern market and maintaining traditional values. The concept of smart innovation is a strategic solution, which combines technological efficiency with the essence of traditional culture. Creative actors in Medan have begun to apply circular and environmentally friendly business principles as part of efforts to maintain harmony with local wisdom that emphasizes the balance of nature (Rosalina et al., 2024). Through this approach, product innovation is not only oriented towards economic gain, but also on cultural and environmental sustainability.

The integration of digital technology has been proven to increase the competitiveness of creative economy actors in Medan. The use of digital strategies such as search engine optimization (SEO), social media advertising, and marketing analytics allows businesses to reach a wider market and understand consumer behavior more accurately (Sari et al., 2024). Local products such as ulos, culinary specialties, and ethnic fashion can now compete with products from other major cities thanks to efficient digital promotion. In addition, automation technologies such as chatbots and customer relationship management (CRM) help businesses improve customer service and operational efficiency.

Digitalization is also driving the transformation of creative business models towards hybrid systems, which combine offline and online sales to reach a wider market. Many MSME actors are now adopting an online-first model, where digital platforms become the center of business activities. This model enables operational cost efficiency, implementation of pre-order systems, and utilization of customer data for more targeted product innovation. This shift shows the adaptability of Medan's creative economy actors to changes in consumer behavior that are increasingly digital-oriented (Mubarok & Muhamad, 2024).

In addition to the economic impact, digitalization also brings significant social impacts. The younger generation is increasingly involved in culture-based creative businesses, utilizing social media to express creativity without requiring large capital. Digital content that elevates local cultural values increases pride in regional identity and strengthens community solidarity. This phenomenon not only expands social participation, but also becomes a means of sustainable cultural preservation

(Susilatun et al., 2023). To accelerate the growth of this sector, the strategy for developing a technology-based creative economy needs to be directed at increasing digital literacy, establishing creative hubs as a forum for collaboration, digitizing the production process, and strengthening regional branding such as “Creative Medan” or “Medan Heritage.”

The government is expected to continue to encourage inclusive policies and support for digital infrastructure so that business actors in the suburbs can also experience the benefits of digital transformation equally (Budhi & Lestari, 2020). With a comprehensive strategy and inter-sector synergy, Medan has the potential to become a center for a cultural-based creative economy in western Indonesia that is able to compete globally, maintain environmental sustainability, and strengthen the nation’s cultural identity.

## **5. Conclusion**

This study confirms that the synergy between local cultural wisdom and digital technology has a vital role in strengthening the creative economy sector in Medan City. The use of digital technology has been proven to increase production efficiency, expand market reach, and strengthen cultural identity through product innovation that is in line with the needs of the times. Cultural wisdom is the main source of inspiration in creating added value for local products, while digital technology serves as a means of transformation to introduce the culture to a wider audience. With the support of the government, creative communities, and active participation of the community, the integration of culture and technology has

succeeded in creating an inclusive and sustainable creative economy ecosystem. The implementation of digitalization in this sector not only has an impact on increasing business income, but also contributes to the preservation of local culture as part of national identity.

This success is supported by the adoption of technologies such as e-commerce platforms and social media that double as a means of sales and digital storytelling media. Through this strategy, typical products such as Songket and Medan culinary are able to penetrate the national and international markets while introducing their historical value. The Medan City Government also plays a role through digital literacy training and facilitation of collaboration between creative economy actors. Multi-stakeholder collaboration is key in facing digitalization challenges such as limited literacy and internet access. This integration of culture and technology not only strengthens competitiveness, but also becomes a strategic foundation towards regional economic independence in the grand vision of Golden Indonesia 2045.

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