**Research Article** 

# A STUDY OF JAMBI BATIK ARTISANS IN INNOVATION AND STRATEGIC DECISION-MAKING TO INFLUENCE THE DEVELOPMENT AND RESILIENCE OF THE JAMBI BATIK INDUSTRY

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#### Abstract

This study investigates Jambi batik artisans' resilience and innovative strategies in overcoming economic challenges and disruption in the textile industry. Using a qualitative approach with data analysis based on Miles and Huberman's interactive model, the research delves into how these artisans creatively adapt to changing market demands by incorporating alternative materials, eco-friendly dyes, and distinctive local designs to enhance product appeal. The study also explores their marketing strategies, which leverage digital platforms and direct sales at exhibitions, significantly expanding their consumer reach and maintaining competitiveness. This combination of traditional artistry and modern tactics supports the preservation of Jambi's cultural heritage. It aligns with Sustainable Development Goals (SDGs) related to responsible production, decent work, and gender equality. The findings reveal that Jambi batik artisans successfully merge traditional motifs with contemporary styles, allowing them to preserve local identity while meeting evolving consumer preferences. Notably, this research highlights how artisans overcome resource limitations and market fluctuations by engaging in strategic collaborations, fostering community support, and adopting digital innovations to broaden their reach. This study's novelty lies in its focus on the dual role of cultural preservation and sustainable economic practices, offering insights into how traditional industries can thrive in modern contexts. The outcomes emphasize that with strategic innovation, the Jambi batik industry has substantial potential for sustainable growth, presenting a model for other cultural enterprises seeking resilience in the face of globalization and economic challenges.

Keywords: Innovation, Jambi batik industry, Resilience

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#### **INTRODUCTION**

International data reveals an alarming trend of increasing textile company bankruptcies, particularly across Asia, ASEAN, and Indonesia. This trend arises from a combination of pressing factors: rising costs for raw materials, energy, and labor; increased competition from countries with lower labor expenses; and shifts in consumer demand towards eco-friendly products (Jones, Elliott, & Nguyen-Tien, 2020; Kusuma, 2020; Hossain, 2021; Intaratat, 2021; Srivastava et al., 2022;

Abdulraheem, Onwuka, & Ogungbo, 2024). These shifts compel textile companies to make costly investments in sustainable technologies to stay competitive, further straining their financial viability. In Asia and ASEAN, where the textile industry is a major employer and a key contributor to exports, such bankruptcies are significant. Indonesia's textile sector, for instance, plays a critical economic role, providing substantial employment and supporting national exports. A decline in the number of textile companies, however, poses risks of rising unemployment and reduced export values, potentially weakening Indonesia's economic stability (Ssenyonga, 2021; Suwarni, 2021; Tambunan, 2021; Sulintang et al., 2024).

The repercussions of textile industry bankruptcies extend widely across society, particularly affecting workers and their families who rely on this sector. When textile companies shut down, unemployment rises, diminishing the purchasing power of affected communities. This economic strain also affects supporting sectors, such as transportation, logistics, and raw material suppliers, which experience decreased demand (Xu et al., 2020; Min, 2023; Adeniran et al., 2024; Zakiyah, Boonma, & Collado, 2024). Regions heavily reliant on the textile industry as a primary income source suffer reduced tax revenues, hindering local development and access to public services. Socially, this instability may drive increased poverty, economic inequality, and limited opportunities for younger generations to secure jobs within this sector (van Niekerk, 2020; Jamatia, 2023; Yohanie et al., 2023; Fitriana & Waswa, 2024; Pun, Chen, & Jin, 2024).

Textile company bankruptcies significantly affect Indonesian batik SMEs, who rely heavily on affordable, quality fabric supplies (Kusumasari, & Retnandari, 2021; Tambunan, 2024). When textile companies fold or reduce production, batik entrepreneurs face increased fabric prices, shrinking their profit margins and burdening them financially. Smaller batik SMEs often lack the bargaining power to withstand these price fluctuations, making them especially vulnerable. Limited access to quality fabrics also disrupts batik production, affecting the SMEs' ability to meet market demand, particularly in export markets that require consistent quality and quantity (Raya et al., 2021; Gunawan et al., 2022; Herawati, Khairinal, & Idrus, 2023; Widjajanti, & Sugiyanto, 2023). Consequently, batik SMEs must seek alternative suppliers or materials, which may be costlier or less suitable, diminishing their competitive edge. This financial strain and supply instability can lead to lost customers and significant sales declines, threatening the growth and sustainability of these batik SMEs, a vital component of Indonesia's creative economy.

Despite the challenges posed by textile industry declines, Jambi's batik entrepreneurs have shown resilience by innovating to sustain their businesses. Many have turned to locally sourced materials, such as traditional woven fabrics or natural fibers from nearby plants, reducing dependency on mass-produced textiles and adding unique value to their products. Moreover, these entrepreneurs utilize natural dyes from local resources like leaves and bark, making their batik more eco-friendly and appealing to environmentally conscious markets. By enhancing their designs with distinctive Jambi motifs rooted in local culture, they create exclusive products that attract both local and international consumers. Through digital marketing, Jambi's batik entrepreneurs also reach a broader customer base, including export markets. Their combination of material innovation, distinctive designs, and digital strategies has enabled them to maintain business continuity and compete despite severe textile industry challenges (Huynh, 2021; Khurana, Dutta, & Ghura, 2022; Milewska, 2022; Asrial et al., 2023; Ermini, Visintin, & Boffelli, 2024).

To withstand macroeconomic instability and textile industry challenges, Jambi's batik entrepreneurs have developed strategies that prioritize profitability and growth (Atkar et al., 2021; Tseng et al., 2022; Aziz et al., 2023; Hussain et al., 2023; Asmororini, Kinda, & Sen, 2024). They focus on production efficiency and product diversification, which maximizes available resources and lessens reliance on major textile manufacturers. Many entrepreneurs leverage local raw materials, such as woven fabric and natural dyes, reducing production costs and adding unique appeal to their batik products. Digital marketing strategies also play a crucial role, with entrepreneurs utilizing social media and e-commerce platforms to reach national and international customers (Omar et al., 2020; Wang, 2020; Goldman et al., 2021; Rosário, & Raimundo, 2021; Perdana, Zakariah, & Alasmari, 2023; Apeadido, Opoku-Mensah, & Mensah, 2024; Baah, Konovalov, & Tenzin, 2024; Semenda et al., 2024; Syahputra, & Edwards, 2024). This approach mitigates local market limitations and drives sales volume, while virtual exhibitions and designer collaborations further expand their market reach. These entrepreneurs also build networks with other batik communities and government institutions, seeking support and training to enhance product quality. By integrating product innovation, digital marketing, and robust partnerships, Jambi's batik entrepreneurs continue to profit and grow, even amid ongoing macroeconomic challenges and a declining textile sector.

The innovative approaches of Jambi's batik entrepreneurs contribute to various Sustainable Development Goals (SDGs). By using local, eco-friendly materials and natural dyes, they align with SDG 12 (Responsible Consumption and Production), reducing dependency on imports and harmful chemicals. This sustainable approach also supports SDG 8 (Decent Work and Economic Growth) by creating jobs in the local supply chain, which strengthens regional economies. Culturally, their commitment to promoting unique Jambi motifs and designs supports SDG 11 (Sustainable Cities and Communities) by preserving and showcasing cultural heritage. As the batik industry in Jambi grows, it stimulates related sectors, such as suppliers of natural materials, local artisans, and tourism, benefiting from batik's cultural significance. Their digital marketing strategy also aligns with SDG 5 (Gender Equality) by expanding economic opportunities for women and young people in rural areas.

While existing literature examines the socioeconomic impacts of textile industry declines and SME challenges in Indonesia, limited research addresses the specific adaptive strategies of Jambi's batik entrepreneurs and their alignment with global sustainability goals. Most studies focus on larger economic implications and do not explore how localized innovations by batik SMEs contribute to economic resilience, sustainability, and cultural preservation (Acevedo et al., 2023; Rachmawati, Majid, & Elizabeth, 2023; Sahabuddin et al., 2023; Asrial et al., 2024; Mutambik, & Almuqrin, 2024). This research aims to bridge this gap by examining how Jambi's batik entrepreneurs respond to supply chain disruptions through material innovations, digital strategies, and unique cultural branding. By analyzing these practices within the SDG framework, this study provides valuable insights into how traditional SMEs in developing economies can simultaneously foster economic growth and promote cultural heritage, offering a sustainable model that could inform policy and business practices across similar industries.

Socially, Jambi's batik entrepreneurs' dedication to promoting unique regional motifs and designs supports SDG 11 (Sustainable Cities and Communities) by preserving and promoting cultural heritage. As Jambi's batik industry grows, it stimulates related sectors, such as natural material suppliers, local artisans, and tourism, all of which benefit from batik's cultural appeal. Their digital marketing strategy, moreover, expands economic access and opportunities for diverse populations, including women and young people, resonating with SDG 5 (Gender Equality). In summary, these innovative efforts by Jambi's batik entrepreneurs strengthen their resilience and contribute to inclusive, sustainable economic growth that benefits both local and national economies. This research highlights how these entrepreneurs' adaptive strategies not only enhance the sustainability of the batik industry but also create wider economic and social value that aligns with global sustainability goals.

# **RESEARCH METHOD**

This study employed a qualitative approach with a naturalistic research design to gain an indepth understanding of the innovation and strategic approaches adopted by batik entrepreneurs in Jambi as they face challenges and work toward growth and resilience. The qualitative approach facilitated a nuanced exploration of these strategies, while the naturalistic design allowed the researcher to observe and interpret phenomena in authentic, real-world settings, thus supporting a more holistic and contextual understanding (Turale, 2020; Cutler, Halcomb, & Sim, 2021; Rahadiyani, Rivani, & Untari, 2023). Purposive sampling, was used to select participants based on their roles and involvement in the batik industry. This method ensured a representation of diverse perspectives from individuals actively engaged in creating innovation and strategy within the batik business. Respondents included batik entrepreneurs, artisans, and local community members who contribute to or are impacted by the batik business. The inclusion of various stakeholders enabled a comprehensive understanding of the effects of strategies and innovations implemented to develop the batik industry in Jambi.

Data were collected through in-depth interviews and observational fieldwork to capture the participants' views on strategies and innovations employed amidst macroeconomic instability and other industry challenges. The interviews focused on qualitative data indicators to understand the contributions of strategies and innovations to the growth of the batik business in Jambi. Key indicators included in table 1.

Table 1. Strategies and innovations employed amidst macroeconomic instability and other industry challenges

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Indicator	Items
Strategy and innovation	5
Capacity to grow the business	5
Marketing performance	5

Data were analyzed using the Miles and Huberman model, a qualitative approach suitable for understanding and describing complex data (Aldila & Rini, 2023; Hardi et al., 2023; Pamungkas et al., 2023). The analysis followed these stages: Data Collection, Gathering data from interviews and observations. Data Reduction, Summarizing and selecting essential data, focusing on the main themes and patterns. Data Display, Organizing and presenting data visually, making it easier to interpret. Verification and Conclusion Drawing, Continuously verifying insights to ensure validity, followed by drawing conclusions and interpretations based on the analyzed data (Setiyani, Baharin, & Jesse, 2023; Wardani et al., 2023). This methodological approach enabled a holistic view of how innovation and strategic decisions influence the development and resilience of the Jambi batik industry.

# **RESULTS AND DISCUSSION**

Based on the results of interviews conducted by researchers with respondents, are presented in the following table 2.

	Table 2. The results of interview	
Question	Answer	
What kind of innovation and	"In stamped batik, it can be 50 pieces a day, while hand-drawn batik can be 5 days to 1 week, the time needed to be finished can be in 1 day but in terms of coloring it cannot be in 1 piece, it must be a lot if only 1 will be a loss so we usually do it in large quantities in a week or a month, my motifs are pictures from friends, the important thing is the flora and fauna pictures"	
strategy do you apply in your business? Do you use various models or natural dyes?	"Alhamdulillah, innovation in adding Design, Coloring, Brand, or packaging is very important. In today's era, people see unique packaging and logo design that greatly influences, therefore we need to learn Googlelink, packaging and coloring from outside so we can be inspired." "Every day I see the dominant color that people like, for example this color I make this I make this, what buyers like is what I make" "Batik is the same, the only difference is the design, I make batik designs with encong krincing patterns so I combine the designs, I also create many new motifs, not plagiarizing, creating what used to not exist to exist" "For my shop I use materials from Japanese dyes, there are 3 types of synthetic dyes from China and Japan but I use Japanese dyes, the materials	
What creativity is used to improve the quality of Jambi batik products?	I buy are from Jambi distribution. For creativity in pictures or ideas I have no talent but I am helped by friends for that" "creativity in ideas/imagination and must be creative, what is needed is to expand knowledge and don't be afraid to take risks, dare to try and think positively." "I like to look at Facebook, look at Google, see other people's but I don't take them all, sometimes Javanese batik has many bright colors" "I only create designs that I develop and I make from nothing to something, for example, shellfish motifs, bamboo, etc."	
Can the skills you have in producing Jambi batik be learned by other people or other businesses?	"From college students and high school students, the last from the Titian Teras school, usually this studio is a training place" "Very possible, I often become a speaker on batik and am facilitated by the local government such as the Provincial Trade and Industry Office, I have been a speaker at Bunga Bersama with batik entrepreneurs there and they are very enthusiastic, not only that I also teach at kindergartens, elementary	

Question	Answer
	schools, high schools and in women's prisons."
	"Yes, it can be learned from other people, knowledge can be learned and practiced"
	"I employ disabled children every Friday and I make a place for them to
	rest and also their house if they want to rest, I teach them from batik to the
	results"
	"Using the materials that I really use, not carelessly because if carelessly
	the results are not good and the coloring too"
How are you able to	"Using premium materials and coloring so that it can meet consumer
increase Jambi batik production at this	interest" "Marketing through bazaars, often invited to exhibitions in Jakarta, often
time?	brought to PKK, frequent promotions, ma'am"
	"Conducting social activities while marketing my products with officials
	because they are already known in those circles"
	"From social media but I don't use it too much so I prefer exhibitions or
Do you have the	direct orders and also know many officials"
ability to market	"Alhamdulillah we have been established for 19 years, almost 20 years,
Jambi batik products better than your	different designs and brands are also seen in terms of marketing through social media and exhibitions and direct orders"
competitors?	"In my opinion, my batik is superior because the motifs and coloring are
·····	created by me myself"
	"Bahan yang saya pakai itu dari distributor di jambi, kalau pewarna saya
Are you always	pakai nomor 3, lilin dan bahan putih nya itu dari koperasi" "Selalu, Kita
trying to find new information about	perlu melihat apa yang lagi tren nya sekarang ibaratnya lagi boomingnya, nah dari situ kita bisa lihat dan mencoba."
products,	"Saya berusaha ikut apakalagi event nasional jadi saya datang , itu peluang
competitors or other	kita buk ada tamu dari luar karena mereka mencari oleh-oleh" "Seorang
things about the	pengusaha harus berani mendobrak, warna dan design nya yang saya buat
market?	beda dengan yang lain, yang biasa nya motif nya tradisisonal saya ciptakan
	warna warna terang seperti itu"
If there is information about	"Yes, because I used to be a craftsman in a studio so the information remains as it is"
the Jambi batik	"Yes, because our concept still uses the old way"
business, do you	"I try to participate especially in national events so I come, that's our
relate the information	opportunity not to have guests from outside because they are looking for
you currently obtain	souvenirs"
with the information	"I always try to make the latest designs with my ideas, the fabrics I make
you obtained previously?	will always be the latest and the motifs are only a few not in large quantities"
previously:	"I only use a few motifs, the important thing is flora and fauna motifs"
	"We are in a digital/online era now, we need to be vigilant, therefore I
How do you evaluate	always ask for designs when marketing and if an outside party gives me
new information	information, I always read and listen carefully."
obtained about the	"Coloring problems can also be, business problems, for example there is an
Jambi batik business/market?	order from the office, they want something good but at a cheap price, I don't want it, ma'am, because we adjust it to our work because the cheap
ousiness/market:	price is how the color is."
	"Alhamdulillah, my consumers are not disappointed with my work because
	the motifs are also good and only created in rare places"
How do you use the	"Maybe"
information obtained	"Sharing from coloring and can come up with new colors or new designs to form different fabric models"
as a basis for	"The workmanship is difficult, adjust it to the price, if it's easy, it's okay to
planning your next	give a cheap price, depending on the difficulty of the work and coloring,
business?	ma'am"

Question	Answer
Are you careful and alert to any information provided by parties outside the	"The principle is generally the same, ma'am, just look at the condition first, a friend can sell 150, I can too, but look at the workmanship, if it's difficult, it's okay to give it to a friend. Just market to a few people if 4 are sold, I can get 10 million because the class is also different" "Yes, very careful because marketing on social media is very sensitive, especially with many people who usually copy other people's work" "We really need to be careful in this digital era, especially in online purchases." "Yes, of course we have to be careful, because there has been fraud,
Company? What have you done?	<ul> <li>consumers order good colors and the orders are many"</li> <li>"I'm up to anyone who copies or what I do is just create the latest motifs, so if anyone copies my work, let God repay them"</li> <li>"The products I use are always distributed from the best, such as coloring and fabrics, I really don't just choose"</li> <li>"We use quality raw materials, we never use other smelly materials if the raw materials are empty because we must maintain customer trust, so</li> </ul>
How are the advantages of the products compared to competitors?	prioritizing quality is a must." "My superior product is like this, ma'am, there are many colors, coloring. yes, sharp and clear coloring, different motifs, different materials so like this, ma'am, although how each craftsman has a different way of making it, the coloring is different, the motifs are different, each has its own characteristics" "The advantages are in terms of color and design, I mix the colors and sometimes only one fabric can be made"
How is the product sales volume after product innovation?	"because I can't design so the number of my products is like that there is no innovation, I use the motifs that I have done" "For now, Jambi batik in the market is quite good, the enthusiasm of buyers for now, thank God, is stable and increasing." "it also depends on the order if batik tulis at least two or three, if batik cap a lot. yes it will definitely run out, especially if there are guests from outside who often fill the stands at the hotel, they look for the mama papa model or the sarimbit" "I sell a little bit of product, not many, only a few people buy it, my income is not up to 30 million per month"
How is the product sales volume compared to competitors?	<ul> <li>"In a month I can produce more than 50 materials, if it's seasonal it can be almost 100 fabrics sold, if competitors may sell up to 400 pieces"</li> <li>"We can't judge because each product of this batik craftsman has its own characteristics."</li> <li>"40 pieces, according to order. if hand-drawn batik at least two or three, if stamped batik many"</li> <li>"I sell products up to 2.5 million, natural dyed batik can reach 4.5 million, my natural dyes are not mixed with chemical colors"</li> </ul>
How many consumers after the product innovation?	"My consumers remain because if there are those who want to order, they just make it, especially if there are certain events." "Alhamdulillah, it has increased a lot." "There are, for example, in two or three years, will you come here and still make batik, are there any new items?" "My consumers are uncertain, especially since my products have left Jambi and abroad, not many but they order in large quantities"
How is the brand position compared to competitors?	"Because my product is in a studio where there are products from 50 craftsmen, so there is competition but it depends on each person's fortune" "Very different, back again, every batik entrepreneur must have a brand that is different from the others." "There is but only for ready-made clothes, there is none for fabric

Question	Answer
	materials"
	"They say I am superior, I have my own class, most of them are in the variety class, I also have fashion, so they display different fashions"

The data from Table 2 highlights how Jambi batik artisans integrate innovation in design, dyeing, branding, and packaging to enhance product appeal and distinguish themselves in the market. Artisans creatively incorporate flora, fauna, and unique pattern blends to craft exclusive motifs, while strategically opting for synthetic dyes to manage production costs. Additionally, many artisans draw inspiration from platforms like Google and social media to align their designs and packaging with contemporary trends, helping expand their market reach (Pathak-Shelat, 2023; Kshetri et al., 2024).

Artisans' creativity contributes to product quality by using unique motifs, such as shell and bamboo patterns, and high-quality materials, which enhance the distinction of Jambi batik from competitors. While artisans may draw on the aesthetics of Javanese or contemporary batik designs found online, they innovate rather than imitate, enriching the repertoire of Jambi batik with new patterns. This approach ensures the high standard of the materials and intricate dyeing processes appeal to consumers seeking premium batik products. Participation in bazaars and national exhibitions further aids in promoting these distinct creations, opening opportunities for broader market access (Maity & Singh, 2021; Brouard et al., 2023; Manning & Vavilov, 2023; Ding et al., 2024).

In addition to producing high-quality batik, artisans understand the importance of effective marketing and promotional strategies. Alongside social media, they rely on exhibitions and direct orders, leveraging relationships with officials and communities to reach diverse consumer segments. By attending national events and bazaars, they gather insights into consumer needs beyond Jambi, helping them adjust their products accordingly (Badriyah, Suharto, & Saraswati, 2023: Karsim et al., 2024). Artisans are also mindful of using external trends as inspiration without infringing on originality, enhancing both product development and consumer trust. These marketing approaches are integral to increasing sales volume and customer reach.

This study's findings on Jambi batik artisans' innovation and market strategies can be closely linked to several UN Sustainable Development Goals (SDGs), notably SDG 12 (Responsible Consumption and Production), SDG 11 (Sustainable Cities and Communities), SDG 8 (Decent Work and Economic Growth), and SDG 5 (Gender Equality). The artisans' strategic use of synthetic dyes, selective motif creation, and packaging innovations align with SDG 12 by promoting responsible production practices. While synthetic dyes are currently used to manage costs and production stability, the study recommends exploring eco-friendly dyes and materials to appeal to environmentallyconscious markets, which would further the commitment to sustainable production. Additionally, artisans use social media and exhibitions to market products aligned with consumer preferences for cultural uniqueness, a strategy that encourages responsible consumption by highlighting the heritage value and longevity of handcrafted Jambi batik. By merging traditional Jambi techniques with contemporary designs, artisans are preserving and revitalizing local culture, directly contributing to SDG 11. This approach not only sustains the cultural identity of Jambi but also strengthens community pride and resilience, as the art of batik-making reflects a long-standing heritage. Participating in national bazaars and exhibitions brings Jambi's unique cultural products to a wider audience, fostering cultural exchange and appreciation. These efforts also enhance community cohesion and local economic opportunities, building a sustainable foundation for artisans and supporting Jambi's cultural vibrancy.

Innovation in Jambi batik production, coupled with improved marketing and sales strategies, directly supports SDG 8 by creating economic growth opportunities and decent work for artisans. Artisans who adapt their products to meet contemporary trends and participate in national markets can reach a wider consumer base, generating higher income and demand. The study highlights how personalized offerings, such as custom orders, increase sales potential and revenue streams, fostering job stability and growth within the Jambi batik industry. Training artisans in digital tools and marketing enhances their business acumen, furthering economic empowerment and long-term industry growth (Eneh et al., 2023; Yadav et al., 2023; Akpuokwe, Chikwe, & Eneh, 2024). Given that many batik artisans are women, these innovations have a direct impact on empowering women economically, aligning with SDG 5. By developing skills in branding, digital marketing, and contemporary design, female artisans gain increased income opportunities and greater autonomy in the marketplace.

Encouraging collaboration with design institutions and training on intellectual property rights (IPR) also equips female artisans to protect and profit from their unique creations, bolstering their roles as cultural custodians and business leaders. This empowerment fosters gender equality within the craft and positions them as vital contributors to both local culture and economic development.

This study introduces an innovative perspective by showcasing how Jambi batik artisans distinguish their products in a competitive market through creative design and branding strategies. Unlike previous studies focused solely on traditional motifs, this research highlights how artisans merge modern inspirations with traditional techniques to create batik products that are both authentic and trend-driven. By adapting current global and domestic trends without duplicating existing designs, these artisans are not only preserving cultural heritage but also modernizing it, making Jambi batik more appealing to contemporary consumers. Additionally, the study emphasizes the unique use of synthetic dyes and Japanese colorants, distinguishing Jambi batik from competitors and giving it a vibrant, distinct appearance. This choice in materials enhances durability and allows for a broader color range, increasing the product's appeal in both local and international markets.

The results of this study carry several important implications for batik artisans and local industry development. Enhanced Market Reach and Appeal: The innovations in design and marketing allow Jambi batik to compete more effectively on a national and even international level. Through strategic use of social media and participation in national bazaars and exhibitions, artisans can better target and attract diverse consumer groups, including younger demographics and foreign tourists, who are often drawn to unique cultural products. Increased Sales through Custom Orders: The artisans' focus on personalization, such as offering hand-drawn or stamped batik and responding to bulk orders, creates additional revenue streams. This flexibility in production fosters a niche market where consumers appreciate the exclusivity and customization, positively impacting sales volume. Sustainability of Traditional Craft with Modern Techniques: By merging traditional Jambi batik techniques with new inspirations and synthetic dyes, artisans ensure the sustainability of this cultural heritage while adapting to the changing preferences of modern consumers. This innovation not only increases product variety but also contributes to the conservation of Jambi's unique cultural identity.

Despite these promising results, the study has limitations that should be considered for a comprehensive understanding. Geographic and Market Specificity: The study focuses solely on Jambi batik artisans, and thus findings may not be fully generalizable to other regions. Different cultural and economic conditions could influence the success of similar innovations in other batik-producing areas. Limited Data on Consumer Preferences: While the study shows that artisans respond to trends, it does not deeply analyze consumer preferences or demand for specific innovations, such as synthetic dyes versus natural dyes. Future research could explore consumer perceptions and demand patterns to tailor product innovations more effectively. Insufficient Technology Integration: Though artisans use social media, there is limited use of digital tools for production and sales analytics. This study does not address how digitalization like e-commerce platforms or customer relationship management (CRM) systems could further enhance their market reach and streamline business processes.

To address these limitations and ensure the continued success and scalability of these innovations, several recommendations can be made. Expand Market Research on Consumer Demand: Future studies should investigate consumer preferences for various design elements, materials, and dye types. Gathering detailed data on buyer trends and preferences especially in international markets would enable artisans to make evidence-based product adjustments that align with market demand. Implement Digital Tools in Sales and Production: Artisans could adopt digital marketing tools and e-commerce platforms to streamline customer interactions and expand market reach. Digital sales channels not only provide a broader consumer base but also help artisans leverage data analytics to track consumer behavior, manage inventory, and tailor marketing efforts effectively. Foster Collaboration with Design Institutions: Collaborating with design schools and institutions can help artisans integrate contemporary design techniques with traditional motifs, creating even more unique and diverse products. Such partnerships could also offer artisans insights into design innovation and branding strategies. Sustainability-Focused Product Development: To increase appeal in environmentally-conscious markets, artisans might consider experimenting with eco-friendly dyes and sustainable materials. While synthetic dyes currently offer cost advantages, exploring natural or hybrid alternatives could open up new market segments and align with global sustainability trends. Training on Intellectual Property Rights: Given that artisans draw inspiration from various sources, training on intellectual property rights

(IPR) would help them use inspiration ethically while avoiding imitation. Understanding IPR can encourage artisans to develop original designs, protecting their products and brand value in the market.

## CONCLUSION

This study highlights the resilience and adaptability of Jambi batik artisans in responding to economic challenges through innovative design, diverse dyeing techniques, and effective branding strategies. By blending traditional motifs with contemporary inspirations, Jambi artisans have successfully preserved cultural heritage while appealing to modern consumers. This approach aligns with various Sustainable Development Goals (SDGs), including supporting local economies, promoting sustainable production, and fostering gender equality. Although limitations such as regional specificity and limited technology integration remain, the artisans' adaptive strategies provide a solid foundation for sustainable growth and broader market reach. The findings suggest that Jambi artisans' strategies not only strengthen local economies but also demonstrate how traditional crafts can thrive in modern markets. Embracing both heritage and innovation, Jambi batik serves as a model for balancing cultural preservation with economic viability. To build on this foundation, future efforts should focus on increasing consumer research to better understand market preferences, experimenting with sustainable materials to enhance eco-friendliness, and collaborating with design institutions to support further innovation. These initiatives could expand the artisans' market presence and sustain Jambi's batik identity in a global marketplace, showcasing how traditional crafts can meet modern consumer demands while supporting sustainable development.

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### **AUTHOR CONTRIBUTIONS**

Conceptualization, AO.; methodology, H. and YS.; resources, AO, H, and YS; data curation, H and YS, supervisor in research activities to article writing, reviewed and edited AO.

## **CONFLICTS OF INTEREST**

The author(s) declare no conflict of interest.

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