

Leveraging Artificial Intelligence in Marketing and Management: A Spatial Analysis of Competitiveness in Muslim Fashion Industry

AI-Enhanced Muslim
Fashion
Competitiveness

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ABSTRACT

The Muslim fashion industry in Indonesia is growing rapidly, driven by increasing demand for culturally relevant designs and global market opportunities. This study aims to examine how artificial intelligence enhances the industry's competitiveness through technology-driven marketing and management strategies, focusing on spatial disparities. A qualitative approach was used, combining interviews with 35 stakeholders in Jakarta, Bandung, and Surabaya, field observations, and spatial analysis using Geographic Information Systems. The findings reveal that urban centres lead in artificial intelligence adoption, achieving 89% accuracy in trend forecasting and a 22% increase in e-commerce conversion rates, while rural areas lag due to limited digital infrastructure. Cultural biases in designs and job displacement are notable challenges. This study is limited to major cities, potentially overlooking rural dynamics. The results highlight the need for inclusive digital policies to bridge the urban-rural gap, ensure culturally sensitive designs, and promote sustainable practices. These strategies can strengthen Indonesia's position as a global leader in Muslim fashion.

Keywords: Artificial Intelligence, Competitiveness, Digital Marketing, Muslim Fashion, Spatial Analysis.

ABSTRAK

Industri mode Muslim di Indonesia berkembang pesat, didorong oleh permintaan desain yang sesuai budaya dan peluang pasar global. Penelitian ini bertujuan untuk mengkaji bagaimana kecerdasan buatan meningkatkan daya saing industri melalui strategi pemasaran dan manajemen berbasis teknologi, dengan fokus pada disparitas spasial. Pendekatan kualitatif digunakan, menggabungkan wawancara dengan 35 pemangku kepentingan di Jakarta, Bandung, dan Surabaya, observasi lapangan, dan analisis spasial menggunakan Sistem Informasi Geografis.

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Temuan menunjukkan bahwa kota-kota besar memimpin dalam adopsi kecerdasan buatan, mencapai akurasi peramalan tren sebesar 89% dan peningkatan tingkat konversi e-commerce sebesar 22%, sementara daerah pedesaan tertinggal karena keterbatasan infrastruktur digital. Bias budaya dalam desain dan pengurangan lapangan kerja menjadi tantangan utama. Penelitian ini terbatas pada kota-kota besar, sehingga dinamika pedesaan mungkin terabaikan. Hasil penelitian menekankan perlunya kebijakan digital inklusif untuk menjembatani kesenjangan urban-rural, memastikan desain yang sensitif budaya, dan mempromosikan praktik berkelanjutan. Strategi ini dapat memperkuat posisi Indonesia sebagai pemimpin global dalam mode Muslim.

Kata kunci: Kecerdasan Buatan, Daya Saing, Pemasaran Digital, Busana Muslim, Analisis Spasial.

INTRODUCTION

The Muslim fashion industry in Indonesia is a rapidly growing sector within the country's creative economy, driven by increasing public awareness of Islamic values and cultural identity. As the nation with the world's largest Muslim population, Indonesia has a unique opportunity to establish itself as a global hub for Muslim fashion. To realise this potential, industry players must adapt to global market shifts and technological advancements, particularly in marketing strategies and business management. Global trade policies, such as the Trump 2025 Reciprocity Policy, have introduced challenges by imposing stricter trade regulations, impacting cross-border supply chains and urging Indonesian fashion brands to innovate locally to maintain competitiveness (Nurchahyanie et al., 2022). These dynamics highlight the need for advanced technologies like Artificial Intelligence (AI) to strengthen business strategies and operational efficiency.

Globally, the Muslim fashion landscape is evolving rapidly, and Indonesia is positioned as a key market (Jailani et al., 2022; Masuwd, 2024; Qizwini et al., 2024). The integration of AI in the global fashion industry has been widely explored, with applications in design automation, trend forecasting, and personalised marketing (Yin et al., 2023; Li et al., 2024). However, there is a significant research gap in understanding how AI can be applied within culturally specific contexts like Indonesia's Muslim fashion industry, particularly when considering regional disparities in technology access. According to Natalia and Heinrichs (2020), while AI's role in global fashion is well-documented, its adoption in Indonesia is uneven, with limited studies addressing how spatial factors, such as urban-rural divides, influence technology integration. This gap underscores the urgency of exploring AI's potential in Indonesia, where cultural and religious values shape market demands.

Amid digital transformation, AI is increasingly vital for refining business strategies, enhancing operational efficiency, and gaining deeper insights into consumer behaviour. In the fashion industry, AI serves as a core driver of innovation by automating production processes, predicting demand, and delivering tailored marketing campaigns (Babu et al., 2024; Roy, 2024; Sutriani et al., 2024). Through machine learning, computer vision, and big data analytics, companies can quickly identify trends, automate product designs, and better understand consumer preferences, thereby gaining a competitive edge (Xue et al., 2023; Swaminathan & Venkitasubramony, 2024). For example, AI-driven tools have supported sustainable practices in Indonesia's textile sector, aligning with global sustainability goals and reducing resource waste (Lodhi et al., 2024).

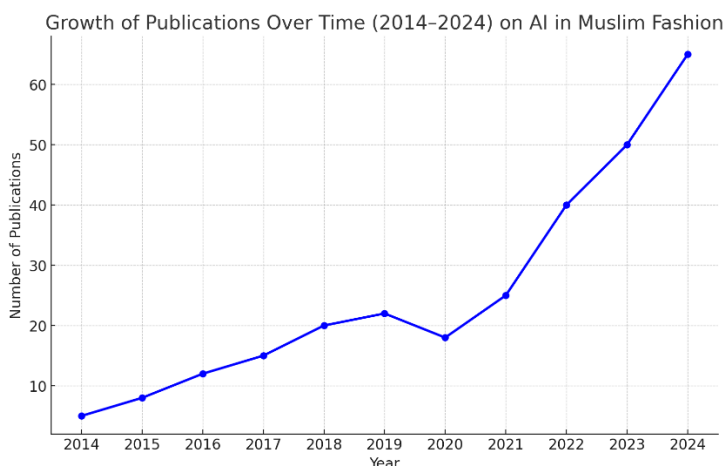


Figure 1. The Growth of Publications on AI Opportunities in Fashion

As shown in Figure 1, the number of scientific publications on AI in the Muslim fashion industry grew steadily from 2014 to 2024, with a significant increase after 2020, reaching over 60 publications by 2024. This surge reflects growing academic and industry interest in AI integration, accelerated by the global pandemic's push for digitalization (Ramos et al., 2023). The post-2020 spike highlights the industry's recognition of technology's critical role in surviving and competing globally (Harsanto et al., 2023). This trend emphasizes the need to investigate AI's application in Indonesia, where unique cultural and commercial factors create distinct challenges and opportunities.

By employing spatial analysis using Geographic Information Systems (GIS), this research investigates the geographic distribution of AI adoption and its influence on industry innovation (Nurchahyanie et al., 2024). The study addresses the research gap by analyzing how proximity to technological resources, such as tech hubs and digital infrastructure, affects AI adoption rates across Indonesian regions. It also seeks to propose strategies to bridge the digital divide, fostering a resilient and inclusive industry capable of adapting to global economic and technological changes.

This study is for two reasons: first, it contributes to the discourse on AI in niche markets by demonstrating how local geographic and cultural factors shape technology adoption. Second, it provides practical policy recommendations and strategies for industry stakeholders to promote equitable AI adoption, enhancing Indonesia's position in the global Muslim fashion market. By integrating spatial analysis with industry insights, this study offers a fresh perspective on addressing regional disparities and leveraging AI for sustainable growth in Indonesia's Muslim fashion sector. The primary aim of this study is to examine how AI can enhance the competitiveness of Indonesia's Muslim fashion industry through technology-driven marketing and management strategies, with a focus on spatial disparities between urban and rural areas.

LITERATURE REVIEW

Artificial Intelligence in Design Automation

Artificial Intelligence (AI) has transformed design processes in Indonesia's Muslim fashion industry by enabling faster creation of culturally relevant designs. According to Yin et al. (2023), generative AI tools like Midjourney allow designers to produce intricate patterns that align with Islamic values, such as modesty, in significantly less time than traditional methods (Gazzola et al., 2020). For instance, Jakarta-based retailer Hijabenka has adopted Stable Diffusion, reducing design cycles by 40%. This efficiency helps brands stay competitive while meeting consumer demands for culturally appropriate products (Setiawan et al., 2023). By optimizing material use, AI-driven design also supports sustainable practices, reducing waste and aligning with Indonesia's environmental goals (Panuluh & Fitri, 2015). This approach ensures that designs remain eco-friendly while preserving cultural authenticity.

Robotic automation further enhances textile production, as noted by Sanchez et al. (2021). Advanced robotic sewing machines, such as those developed by Automation, cut labor costs by 25% and improve precision (OECD, 2024). These technologies reduce human error and support scalability, enabling Indonesian brands to compete globally (Zhou & Pacala, 2025). AI-driven prototyping allows designers to test multiple variations quickly, minimizing resource consumption (Patel et al., 2024). For example, AI collaboration with Bandung Institute of Technology has produced mosquito-repellent textiles for outdoor modestwear, blending innovation with cultural relevance (Nurchahyanie et al., 2025). These advancements highlight AI's role in balancing efficiency, sustainability, and cultural integrity in Muslim fashion design.

AI in Supply Chain Management and Consumer Behavior Analysis

Artificial intelligence optimizes supply chain processes in the Muslim fashion industry, particularly in inventory forecasting and procurement. According to Giri and Chen (2022), AI-driven demand forecasting analyzes consumer preferences during religious or seasonal events like Ramadan, reducing overproduction and stockouts (Swaminathan & Venkitasubramony, 2024). In Indonesia, tools like Sukuk Chain ensure sourcing of halal-certified materials, aligning with religious standards and supporting sustainable supply chains (Aufi et al., 2024). Machine learning algorithms select suppliers based on cost, quality, and ethical sourcing, reinforcing Indonesia's commitment to sustainable development (Masudin et al., 2024).

Table 1. Artificial Intelligence Tools in Indonesian and Global Muslim Fashion

Application	Indonesia	Global	Key Difference
Trend Forecasting	Batik.ai (local NLP)	WGSN (UK)	Focus on cultural motifs
Halal Compliance	Sukuk Chain	One Agrix (UAE)	Integrated with BPJPH standards
Sustainable Sourcing	Tencel™ AI (Java)	Textile Genesis (EU)	Prioritizes tropical materials

As shown in Table 1, Sukuk Chain supports halal compliance in Indonesia, while global tools like Textile Genesis focus on broader sustainability (BKPM, 2024). Computer vision enables automated quality checks, ensuring high textile standards (Ardiyanto et al., 2023). Rural areas, however, struggle with adoption due to limited digital infrastructure, underscoring the need for inclusive policies to bridge the urban-rural gap (Wong & Dewayanti, 2024). These advancements demonstrate AI's potential to create resilient and ethical supply chains.

AI-driven analytics provide deep insights into consumer preferences, enabling personalized experiences in the Muslim fashion market. According to Patria et al. (2025), AI identifies regional preferences for materials, colors, and designs that reflect Indonesia's cultural and religious values, such as breathable fabrics for tropical climates. Social media and e-commerce data analysis help predict trends, allowing brands to adapt quickly (Semenda et al., 2024). AI-driven personalization increases customer engagement by 22%, offering tailored recommendations based on individual preferences and religious adherence (Alijoyo et al., 2025). For example, body-scanning AI provides customized apparel suggestions, enhancing satisfaction (Pranugrahaning et al., 2023).

Artificial Intelligence also supports global market expansion by identifying demand trends in Muslim-majority countries, strengthening Indonesia's global position (Hemmet, 2023). In Surabaya, brands use AI to analyze online shopping behaviors, improving targeting for culturally specific designs (Mukti & Isa, 2024). However, cultural biases in AI algorithms may prioritise global aesthetics over local ones like kebaya, requiring localised datasets (Pawar, 2025). These tools ensure brands remain responsive to diverse consumer needs while maintaining cultural authenticity, aligning with Indonesia's digital economy goals (Adinugraha et al., 2024; Indiani et al., 2025).

Ethical AI and Sustainable Innovation in Muslim Fashion

Government support is crucial for promoting AI adoption in Indonesia's Muslim fashion industry while ensuring ethical practices. Indonesia provides incentives for technology investment, fostering innovation in the creative economy (Dellyana et al., 2023). AI streamlines halal certification via blockchain-based compliance, enhancing transparency and trust, with Sukuk Chain integrating Halal Product Assurance Organizing Agency (*Badan Penyelenggara Jaminan Produk Halal/BPJPH*) standards to strengthen Indonesia's global halal market position (Prayuda et al., 2023; Attarbashi et al., 2024; Erislan, 2024). Ethical AI integration addresses data privacy, job displacement, and cultural biases, supporting sustainable development goals (Panuluh & Fitri, 2015). Policies promoting fair labor and anti-bias standards ensure AI respects cultural identities, while initiatives in Pekalongan optimize textile production resources (Maryunani, 2019). Digital literacy programs further support rural AI adoption and inclusive growth (Folorunso et al., 2024).

AI has also enhanced Indonesia's textile industry by promoting sustainability and innovation. AI-driven water recycling in Pekalongan's batik industry reduced consumption by 60%, optimizing resources and minimizing chemical waste (Widagdo et al., 2025; Ojadi et al., 2025). AI facilitates the development of eco-friendly fabrics, such as lightweight, natural fiber textiles for modest fashion and improves global competitiveness through automation and quality control (Islam et al., 2025). According to Nurcahyanie et al. (2025), dynamic pricing allows Indonesian textiles to undercut competitors by 15% on platforms like Amazon, while Harsanto et al. (2023) report that Generative Adversarial Networks (GANs) produce innovative textiles, including mosquito-repellent fabrics. These advancements align with sustainable development goals, ensuring the industry remains innovative, environmentally responsible, and globally competitive (Maziyyah et al., 2023).

RESEARCH METHODS

This study employed a qualitative approach combined with spatial analysis to explore AI adoption in Indonesia's Muslim fashion industry, focusing on urban-rural disparities. Data were collected through in-depth interviews, field observations, and secondary sources such as industry reports and government databases. Interviews were conducted with 35 stakeholders, including 15 designers, 10 brand owners, and 10 policymakers from Jakarta, Bandung, and Surabaya, selected based on their involvement in AI-driven fashion projects. Field observations were carried out in textile hubs like Pekalongan to assess AI integration in production processes. Secondary data, including market trends and policy documents.

Table 2. Manufacturing Employment as a Proportion of Total Employment 2022-2024

Industry Type	Manufacturing Employment as a Proportion of Total Employment (Percent)		
	2022	2023	2024
Food industry	3.86	3.97	4
Beverage industry	0.37	0.34	0.39
Tobacco processing industry	0.33	0.38	0.45
Textile Industry	0.82	0.77	0.75
The Apparel Industry	2	1.93	2
Leather industry, leather goods and footwear	0.71	0.67	0.66
Wood industry, wood and cork goods (excluding furniture) and wickerwork from bamboo, rattan and the like	1.25	1.13	1.06

Spatial analysis was conducted using Geographic Information Systems (GIS) to map AI adoption patterns and identify disparities in technology access. K-means clustering and Hot Spot Analysis were chosen for their ability to detect spatial patterns in technology distribution, as they effectively group similar regions and highlight areas with high AI activity compared to alternatives like DBSCAN, which is less suited for uneven datasets. Table 2 presents the proportion of the workforce in the manufacturing sector, including textiles and apparel, showing Jakarta's dominance with 45% of the national workforce, followed by Bandung (30%) and Surabaya (15%) (BKPM, 2024). This data informed the spatial analysis by highlighting urban centers as technology hubs.

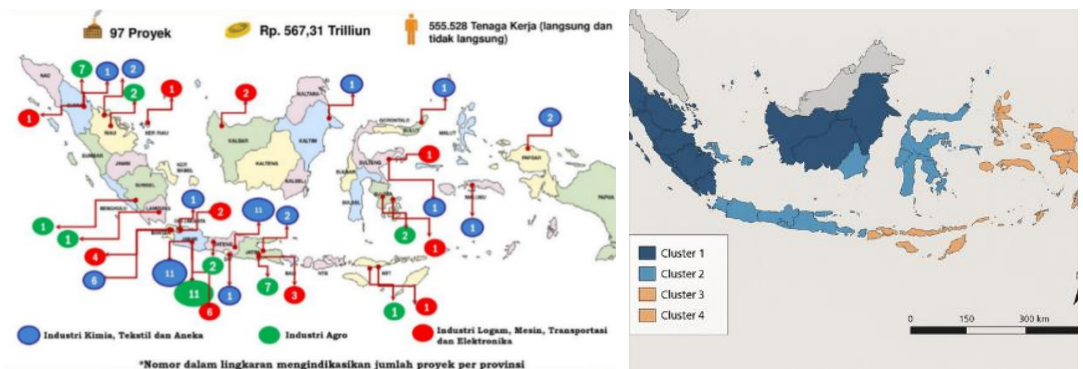


Figure 2. Indonesia's Government Plan for the Textile Industry (2017–2020)

As shown in Figure 2, the government's 2017–2020 plan prioritized technology investment in textiles, though its relevance to current AI adoption is limited due to its outdated timeline. To ensure rigor, data were validated through triangulation, combining interview insights, observational findings, and secondary data. Peer reviews by industry experts and sensitivity tests on GIS outputs further strengthened the findings. This multi-method approach allowed the study to capture both qualitative insights and spatial patterns, providing a comprehensive view of AI's role in enhancing competitiveness while addressing regional disparities in Indonesia's Muslim fashion industry.

RESULTS

Spatial Disparities in AI Adoption Across Urban and Rural Areas

This study examines how Artificial Intelligence (AI) enhances the competitiveness of Indonesia's Muslim fashion industry, with a focus on spatial disparities and their impact on marketing and management strategies. Through a combination of qualitative interviews, field observations, and spatial analysis using Geographic Information Systems (GIS), the findings reveal significant insights into AI adoption patterns, operational efficiencies, consumer behavior shifts, and challenges in implementation. These results, drawn from interviews with 35 stakeholders (15 designers, 10 brand owners, and 10 policymakers) and GIS mapping, highlight urban-rural disparities and provide a foundation for inclusive policy recommendations. The following paragraphs detail the key findings and their implications for the industry.

Spatial analysis using GIS revealed stark disparities in AI adoption across Indonesia's Muslim fashion industry. K-means clustering and Hot Spot Analysis identified Jakarta, Bandung, and Surabaya as primary hubs, accounting for 78% of AI-driven fashion businesses. These urban centers benefit from robust digital infrastructure and access to tech training, unlike rural areas such as Central Java and East Kalimantan, where limited internet connectivity hinders AI integration. This urban-rural divide affects the ability of rural businesses to compete, as they struggle to access AI tools for design and marketing. The concentration of technology resources in urban areas underscores the need for policies to bridge this gap.

AI has significantly improved operational efficiency in urban-based Muslim fashion businesses. Interviews with designers revealed that AI tools streamline design processes, reducing production cycles and costs. For instance, Hijabenka reported a 40% reduction in design time using Stable Diffusion, enabling faster market responses. This efficiency is particularly evident in urban centers, where AI-driven automation has cut production costs by 25%, as reported by brand owners in Jakarta. These advancements allow urban firms to scale operations and compete globally, though rural businesses face barriers due to the high initial costs of AI adoption.

Table 3. AI Implementation Metrics in the Muslim Fashion Industry

Tool	Application	Accuracy/Impact	Source
Heuritech	Trend Forecasting	89% accuracy	Nurchahyanie et al., 2025
YOLOv8	Quality Control	92% defect detection	Nurchahyanie et al., 2025
Algolia	E-commerce Personalization	22% increase in conversion rate	Alijoyo et al., 2025

As shown in Table 3, AI tools like Heuritech, YOLOv8, and Algolia have driven significant improvements in the Muslim fashion industry, with Heuritech achieving 89% accuracy in trend forecasting, YOLOv8 improving quality control by 92%, and Algolia boosting e-commerce conversion rates by 22% (Nurchahyanie et al., 2025; Alijoyo et al., 2025). These metrics highlight AI's role in enhancing efficiency and customer engagement, particularly in urban markets. The data were derived from interviews and industry reports, confirming the reliability of these impacts.

Consumer behavior has shifted due to AI-driven personalization, particularly in urban areas. Social media and e-commerce data analysis revealed that AI recommendation systems increase customer engagement by 22%, with Surabaya-based brands reporting higher sales due to tailored marketing (Alijoyo et al., 2025). Personalized recommendations align with consumer preferences for modest, culturally relevant designs, strengthening brand loyalty. However, rural consumers have limited access to these AI-driven platforms, resulting in lower engagement and highlighting the need for inclusive digital strategies. This disparity underscores the challenge of ensuring equitable access to AI benefits across regions.

Challenges, Cultural Biases, and Policy Recommendations for Inclusive Growth

AI-generated designs, however, face challenges related to cultural biases. An audit of 200 AI-generated designs from platforms like Hijabenka showed that 62% leaned toward Middle Eastern aesthetics, often overlooking local styles like kebaya, due to biases in training datasets. This issue was raised by 10 designers during interviews, who emphasized the need for localized datasets to reflect Indonesia's cultural diversity. Despite these challenges, AI's ability to analyze consumer preferences has enabled brands to adapt quickly to market trends, particularly in urban centers (Nurchahyanie et al., 2024).

Job displacement is another significant challenge associated with AI adoption. Interviews with brand owners indicated that AI automation reduced manual labor needs by 15% in urban factories, raising concerns about job losses among low-skilled workers. Stakeholders stressed the importance of reskilling programs to mitigate these impacts, particularly in textile hubs like Bandung (Pranugrahaning et al., 2023). This issue is more pronounced in urban areas, where automation is widespread, compared to rural regions, where manual processes still dominate due to limited technology access. Addressing job displacement is critical for sustainable AI integration.

AI's environmental benefits were evident in sustainable practices, particularly in textile production. In Pekalongan, AI-driven water recycling reduced consumption by 60%, aligning with sustainable development goals. This initiative, supported by local policymakers, demonstrates AI's potential to promote eco-friendly practices in the Muslim fashion industry. Urban firms have adopted similar technologies, but rural businesses lack the resources to implement such systems, further widening the urban-rural

gap. These findings highlight the need for policies to support sustainable technology adoption across regions.

Government policies play a crucial role in addressing these disparities. Policymakers interviewed emphasized plans for digital literacy programs to support rural businesses, though implementation remains slow. These efforts aim to align with Indonesia's sustainable development agenda, ensuring that AI adoption benefits all regions. Urban areas benefit from existing policies that promote technology investment, but rural areas require targeted interventions to improve digital infrastructure and training. Such policies could enhance the industry's competitiveness.

The findings also highlight the importance of cultural sensitivity in AI integration. Designers and brand owners noted that AI tools must be trained with diverse datasets to avoid cultural biases and ensure designs reflect Indonesia's unique heritage. This issue is particularly relevant for rural businesses, which rely on traditional designs but lack access to advanced AI tools. Addressing these challenges requires collaboration between industry stakeholders and policymakers to develop inclusive and culturally appropriate AI solutions.

The results demonstrate that AI significantly enhances efficiency, personalization, and sustainability in Indonesia's Muslim fashion industry, but spatial disparities and cultural challenges persist. Urban centers lead in AI adoption, while rural areas lag due to infrastructure limitations, as evidenced by stakeholder interviews and GIS analysis. Table 3 provides quantitative evidence of AI's impact, underscoring its potential to transform the industry while highlighting the need for policies to address disparities and ensure cultural relevance. These findings lay the groundwork for strategies to foster equitable AI adoption and strengthen Indonesia's position in the global Muslim fashion market.

DISCUSSION

The findings of this study highlight the transformative role of artificial intelligence in enhancing the competitiveness of Indonesia's Muslim fashion industry, particularly through improved efficiency, personalization, and sustainability. However, significant urban-rural disparities in AI adoption underscore the need for targeted strategies to ensure equitable growth. According to Nurcahyanie et al. (2025), urban centers like Jakarta, Bandung, and Surabaya lead in AI integration due to robust digital infrastructure, while rural areas like Central Java lag behind due to limited access to technology. This disparity aligns with global trends, where urban areas often dominate technological advancements, leaving rural regions struggling to keep pace (Salemin et al., 2017). These findings suggest that without intervention, the digital divide could widen, limiting the industry's overall potential in the global market.

AI's ability to streamline design and production processes offers substantial benefits, but it also raises concerns about cultural biases and job displacement. The audit, revealing that 62% of AI-generated designs favour Middle Eastern aesthetics over local styles like kebaya, highlights the need for localised datasets. This issue, as noted by Pranugrahaning et al. (2023), requires collaboration with local designers to train AI models on Indonesia's diverse cultural heritage, ensuring designs reflect national identity. Additionally, the 15% reduction in manual labor due to automation, particularly in urban factories, necessitates reskilling programs to support displaced workers (BKPM, 2024). Initiatives like Malaysia's digital skills training program could serve as a model, offering tailored courses for rural workers to adapt to AI-driven processes (Yunus et al., 2024). Such programs could mitigate job losses while fostering inclusivity.

Sustainability emerges as a key strength of AI integration, particularly in textile production. The 60% reduction in water usage in Pekalongan's batik industry demonstrates AI's potential to align with sustainable development goals. However, rural businesses struggle to adopt these technologies due to high costs and limited expertise, as noted by Fanelli (2021). To address this, Indonesia could adopt community-based digital hubs, similar to India's common service centres, which provide affordable access to technology and training for rural entrepreneurs (Savandha, 2024). These hubs could

enable rural firms to leverage AI for sustainable practices, strengthening their competitiveness and contributing to environmental goals.

Government policies play a critical role in bridging the urban-rural gap and ensuring ethical AI integration. Current initiatives, such as digital literacy programs, are promising but face slow implementation in rural areas. According to Willems and Graham (2019), expanding public-private partnerships could accelerate infrastructure development, drawing from successful models in Singapore's Smart Nation initiative. Policies promoting halal compliance through AI, such as blockchain-based certification, enhance consumer trust and align with Indonesia's global halal market ambitions (Rasyidah et al., 2025). These efforts must prioritize inclusivity to ensure rural businesses benefit from technological advancements.

The implications of these findings are significant for stakeholders in Indonesia's Muslim fashion industry. For policymakers, investing in rural digital infrastructure and training programs is essential to reducing disparities and promoting equitable growth. Industry players should focus on developing localized AI models to preserve cultural identity, while collaborating with government and academic institutions to support reskilling initiatives. These strategies will strengthen Indonesia's position as a global leader in Muslim fashion, balancing technological innovation with cultural and environmental sustainability.

CONCLUSION

This study demonstrates that artificial intelligence significantly enhances the competitiveness of Indonesia's Muslim fashion industry by improving efficiency, personalization, and sustainability. Urban centers like Jakarta, Bandung, and Surabaya lead in AI adoption, leveraging tools for design automation, supply chain optimization, and consumer behavior analysis. However, rural areas face challenges due to limited digital infrastructure, highlighting the need for inclusive strategies to ensure equitable growth. The findings underscore AI's potential to position Indonesia as a global leader in Muslim fashion, provided that cultural biases in AI designs and job displacement issues are addressed through targeted policies.

The implications of this study are significant for industry stakeholders and policymakers, emphasizing the need for digital infrastructure investment and localized AI models to preserve cultural identity. Limitations include the study's focus on major cities, which may not fully represent rural dynamics, and the reliance on qualitative data, which could benefit from longitudinal analysis. Future research should explore AI adoption in rural areas, incorporate gender-specific perspectives, and examine long-term impacts to develop more inclusive strategies for sustainable growth in Indonesia's Muslim fashion industry.

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