

Review of: "Harnessing the Power of Generative Adversarial Networks (GANs) for Novel Batik Designs: An Exploration of Lightweight GANs (LGANs) for Automatic Batik Design"

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Potential competing interests: No potential competing interests to declare.

The research presents a compelling case for the integration of Generative Adversarial Networks (GANs), particularly Lightweight GANs (LGANs), in revitalizing the batik industry in Malaysia and Indonesia. It addresses the pressing issue of declining interest among young artists and the potential economic upliftment for the economically disadvantaged B40 community. The proposal to automate the generation of innovative batik designs using LGANs bridges the gap between tradition and modernity, offering a promising avenue for economic development and skill enhancement.

The choice of LGANs is well-justified, considering their efficiency in training and their ability to produce high-quality outputs, especially intricate batik patterns. The research rigorously evaluates LGANs' effectiveness in generating novel designs, comparing them with traditional manual methods. The findings convincingly demonstrate LGANs' capability to produce distinct and complex designs with greater efficiency and accuracy, thus potentially attracting young artists and creating sustainable income opportunities for the B40 community.

Moreover, the study emphasizes the symbiotic relationship between artificial intelligence and traditional craftsmanship, presenting a forward-looking approach to revitalizing the batik industry while preserving cultural heritage and fostering innovation. By expanding the industry's global reach and promoting inclusivity, this research offers a holistic solution to the challenges faced by the batik industry.

However, further exploration may be warranted to address potential challenges such as the integration of LGANs into existing production processes and the impact on the authenticity of handmade batik. Overall, this research represents a significant contribution to the field and sets a promising direction for the future of the batik industry.