



CATHARSIS 14 (1) 2025
10-16

p-ISSN 2252-6900 I e-ISSN 2502-4531

Catharsis: Journal of Arts Education



<http://journal.unnes.ac.id/sju/index.php/chatarsis>

Ethno-Eco-Design for ‘Literapreneurship’ in Screen Printing in Semarang

Eko Sugiarto[✉], Kemal Budi Mulyono, Bangkit Sanjaya, Muh Fakhrihun Naam, Retnoningrum Hidayah, Arif Fiyanto

Email: ekosugiarto@mail.unnes.ac.id

Universitas Negeri Semarang, Indonesia

Received 26 January 2025, Accepted 16 March 2025, Published 30 June 2025

Abstrack

This study explores the concept of Ethno-Eco-Design as a strategic approach to empower literapreneur start-ups in the screen printing and apparel industry in Semarang. Based on preliminary surveys and related studies, these start-ups face two major challenges in 21st-century entrepreneurship: low ecological awareness in their production and business practices, and limited market segmentation, particularly in reaching millennial consumers. Using a participatory action research method, this study examines how the integration of local cultural elements (ethno-design) with environmentally friendly design practices (eco-design) can enhance the sustainability and market relevance of these start-ups. As a result, a design framework was developed that not only supports green entrepreneurship (ecopreneurship) but also expands the literacy and creative capacity of young business actors in a competitive and environmentally conscious market.

Keywords: eco-design, ethnic, screen printing, entrepreneurship.

INTRODUCTION

Screen printing and clothing businesses remain highly competitive industries at the micro and medium scales (Nieto Sotelo, 2017; Rostomyan, 2014). Confidence in the growth of the garment sector remains high, as it continues to serve as a backbone of the creative industry in Indonesia (Chan-Olmsted & Wolter, 2018). Data from the local MSME (Micro, Small, and Medium Enterprises) office shows that the garment sector, including screen printing and clothing, contributes significantly to Semarang's regional income, reaching 17.3% (Sugiarto et al., 2024). One notable local business in Semarang is *Fairuz Collection*, which also plays a key role in educating the community about entrepreneurship. It operates amidst the intense competition of the garment industry. According to an initial interview with its owner, Mr. Azis Masum, *Fairuz Collection* has been operating since 2016, initially focusing on screen printing with a monthly income of around IDR 5–6 million or approximately IDR 40–50 million annually, and only one employee. However, after the pandemic in 2022, *Fairuz Collection* began expanding its production activities into the clothing sector. Although profits increased, the growth was not substantial.

Interestingly, as a millennial-led start-up, *Fairuz Collection* promotes entrepreneurship literacy within the local community by collaborating with similar start-ups and involving local tailors to build a production network and maintain business sustainability. The community's participation in developing business understanding is commendable. As a newcomer in the entrepreneurial world, *Fairuz Collection's* journey has not been easy, especially when facing the impact of the COVID-19 pandemic from 2020 to 2021. One of its recovery efforts was through the concept of *literapreneurship*. The *literapreneur* (literacy–entrepreneurship) idea of *Fairuz Collection* is an initiative by the

owner, involving several local tailors as production partners.

On the other hands, the 21st-century screen printing and apparel industry faces increasing pressure to adopt sustainable practices and cater to evolving consumer preferences. This is especially true for literapreneur start-ups, which often struggle with limited resources and market access. Two critical challenges stand out: a lack of ecological awareness in production and business operations, and difficulty in reaching the millennial consumer segment. These challenges highlight a gap between traditional practices and the demands of a market that increasingly values sustainability and cultural relevance.

To address this gap, the concept of Ethno-Eco-Design emerges as a strategic approach (Chan-Olmsted & Wolter, 2018). Ethno-Eco-Design integrates local cultural elements (ethno-design) with environmentally friendly design practices (eco-design) to enhance the sustainability and market appeal of businesses. This approach acknowledges the importance of preserving cultural heritage while simultaneously reducing environmental impact. Such integration can lead to innovative business models and products that resonate with consumers seeking authenticity and ethical production (Hahn et al., 2018).

Several studies emphasize the importance of creativity, technology, and entrepreneurship in strengthening culture-based creative economies. "Ethno design" taps into the local wisdom and cultural values, linking them to modern market needs (Gallas et al., 2019; Kartika et al., 2020). This enables artisans to update product designs and functions while maintaining their cultural roots.

By adopting Ethno-Eco-Design, literapreneur start-ups can not only improve their environmental performance but also create a unique brand identity that resonates with millennial consumers. This approach

can drive sustainable development while fostering economic growth and cultural preservation within the local community. Furthermore, the emphasis on green marketing, information sharing, and education can enhance competitiveness in the fashion industry (Boccella & Salerno, 2016; Yang, 2017)

The urgency of eco and ethnic design arises from a confluence of environmental, cultural, and economic factors. The environmental crisis demands a shift towards sustainable practices, and integrating eco-design principles is crucial for minimizing the negative impact of industries. Consumers are increasingly aware of these issues, and expect businesses to prioritize environmental responsibility (Hamdan et al., 2022; Kartika et al., 2020).

METHODS

This study employs the Participatory Action Research (PAR) approach as its primary research method. PAR is chosen because it enables active involvement between the researcher and research subjects in identifying problems, formulating solutions, and implementing and evaluating actions collaboratively. In this context, the researcher works closely with screen printing and apparel start-up actors in Semarang to explore the challenges they face, particularly the lack of ecological awareness and the limited market segmentation among millennials. The process involves in-depth interviews, participatory observation, and focus group discussions (FGDs) with business owners, employees, and local tailor partners (Rohidi, 2014).

Through iterative cycles of reflection and action, this study directly investigates how the integration of local cultural elements (ethno-design) and environmentally friendly design practices (eco-design) can be practically applied in both production and marketing strategies. The researcher facilitates sustainable design training and observes its impact on business sustainability

and market appeal. The findings from this process are then qualitatively analyzed to construct a design framework that is relevant to the local context and the needs of young entrepreneurs. Thus, the PAR method serves not only as an exploratory tool but also as a means of empowerment for business actors in developing their literacy and innovation capacities (Archibald & Gerber, 2018; Davidavičienė, 2018).

RESULT AND DISCUSSION

Eco-ethnic-based screen printing business

Ethnic design plays a vital role in preserving and promoting cultural heritage. By incorporating local cultural elements into products and services, businesses connect with consumers and contribute to revitalizing traditional crafts and knowledge. This approach ensures the transmission of cultural values to future generations.

Moreover, there's a growing market demand for products and services that are both sustainable and culturally authentic. Consumers, especially millennials, are more likely to support businesses that prioritize ethical production and cultural preservation. Ethno-Eco-Design enables businesses to create unique brand identities that resonate with this expanding market segment (Hamdan et al., 2022).

The *Fairuz Collection* team sees great potential in natural materials such as dyes derived from leaves, tree bark, or local fruits, which can be processed into alternative screen printing ink. In addition to being environmentally friendly, these materials also carry strong historical and cultural values, making them highly suitable for integration into an ethno-eco-design approach. This development presents a strategic opportunity to strengthen local identity while capturing the interest of the market—particularly the millennial consumer segment, which is increasingly conscious of sustainability issues and ethical values in product consumption (Brown & Lazar-Kurz, 2021).

Furthermore, the use of natural dyes is expected to become a significant added value for *Fairuz Collection*'s products. Today's consumers not only consider design and price but also pay attention to the origin of materials, the production process, and the environmental impact of the goods they purchase. By highlighting its eco-friendly practices and local wisdom, *Fairuz Collection* can position itself as a brand that is not only creative but also socially and ecologically responsible.

Beyond product development, this community engagement initiative also aims to strengthen an environmentally conscious corporate culture. During the training sessions, all employees were actively involved—from identifying problems, brainstorming solutions, to simulating the use of natural materials in the screen printing process. This involvement is crucial to ensure that transformation occurs not only at the technical level but also at the level of shared awareness and organizational values (Couger et al., 1990).

It is hoped that this active participation will foster a collective commitment among employees to support the transition toward more environmentally friendly practices. They will not only act as technical operators but also as internal change agents who can encourage their peers to be more mindful of sustainability aspects. In this way, the shift toward an eco-friendly business model becomes not a burden but part of the company's identity and daily work spirit.

This internally grown ecological commitment serves as a valuable social asset for *Fairuz Collection* to continue growing amid tight market competition. In the post-pandemic era, consumers are not only looking for attractive products but also tend to choose brands that show clear values and a commitment to sustainability. Initiatives such as natural dye development and employee involvement in eco-design training will provide a strong point of differentiation from competitors.

Moreover, this initiative opens up opportunities for cross-sector collaboration, such as with artisan communities, research institutions, and government agencies that support green product development programs. If managed consistently, *Fairuz Collection* has the potential to become an inspiring microenterprise model—not only in terms of design creativity but also in sustainable innovation and local community empowerment.

With synergy between product innovation, cultural values, and environmental awareness, *Fairuz Collection* is well-positioned to grow into a locally rooted literapreneur enterprise with global relevance. This is the long-term goal of the community engagement initiative: to build business capacity that is not only economically resilient but also environmentally conscious and grounded in local identity.

Eco-ethnic Design in Screen Printing at Fairuz Collection

With the rise of eco-friendly initiatives across industries, design experts are bringing sustainability into the home. Technological advancements and new innovations are making it easier for designers to contribute to a healthier planet by using techniques such as carbon storage, adopting vegan materials, or creating eco-friendly landscapes with native plants. Learn how to live a healthier lifestyle, reduce your carbon footprint, and help combat global warming—without sacrificing great design.



Figure 1. The process of Eco-printing in Fairuz Collection

Fairuz Collection in Semarang can integrate ecological design into its screen-printing operations to promote sustainability and appeal. This involves a holistic approach encompassing material selection, production processes, design philosophy, community engagement, and transparent communication (Javeed et al., 2022; Sauer et al., 2004).

The collection should prioritize eco-friendly materials such as organic cotton, recycled fabrics, and natural dyes. Batik artisans in Kutawaru, for instance, use natural dyes from mangrove plants. Fairuz Collection can explore similar locally sourced, sustainable materials to minimize its environmental impact and support regional communities.

Implementing environmentally conscious production processes is crucial. This includes reducing water consumption, minimizing waste, and using energy-efficient technologies. Screen printing can benefit from water-based inks and eco-friendly solvents. A closed-loop system where waste is recycled or repurposed can further enhance sustainability.

Integrating ecological considerations into the design philosophy leads to innovative, sustainable products. Designing for durability, repairability, and recyclability reduces waste and extends product life. Inspiration from nature, incorporating biophilic design elements, can promote well-being and environmental awareness.

Engaging with the local community fosters a culture of sustainability. Fairuz Collection can collaborate with local artisans, support fair trade, and promote environmental education. Partnering with local organizations for conservation projects reinforces this commitment.



Figure 2. Packaging of Product Non-plastic



Figure 3. Packaging of Product Non-plastic

Transparency builds consumer trust. Clear communication about materials, processes, and environmental impact is vital. Storytelling can highlight the social and environmental benefits of Fairuz Collection's products, attracting environmentally conscious consumers and strengthening its brand identity.

CONCLUSION

In conclusion, this study demonstrates that Ethno-Eco-Design can serve as a transformative strategy for strengthening literapreneur start-ups in the screen printing and apparel sector. By addressing the dual challenges of low ecological awareness and narrow market segmentation, the integration of local cultural identity with sustainable design practices enables these start-ups to build more resilient and future-oriented business models. The participatory action research approach proved effective in involving stakeholders directly, ensuring that solutions were contextually relevant and collectively owned.

The resulting design framework not only supports the development of environmentally conscious enterprises but also cultivates entrepreneurial literacy and creativity among youth. This holistic empowerment encourages a new generation of entrepreneurs to embrace sustainability as a core value rather than an external obligation. Ultimately, Ethno-Eco-Design

presents a viable path for local start-ups to thrive in an increasingly ethical and eco-sensitive global market, while preserving cultural heritage and fostering responsible innovation.

REFERENCES

- Archibald, Mandy M, & Gerber, Nancy. (2018). Arts and Mixed Methods Research: An Innovative Methodological Merger. *American Behavioral Scientist*, 62(7), 956–977.
- Boccella, N., & Salerno, I. (2016). Creative Economy, Cultural Industries and Local Development. *Procedia - Social and Behavioral Sciences*, 223, 291–296.
- Brown, S., & Lazar-Kurz, Z. (2021). How a Creative Product Evolves: A Structural Analysis of Creative Trajectories in Graphic Design: Short title: Creative trajectories in graphic design. *Proceedings of the 13th Conference on Creativity and Cognition*, 1–5.
- Chan-Olmsted, S., & Wolter, L.-C. (2018). Emotional Engagement in a New Marketing Communication Environment. In *The Handbook of Communication Engagement* (pp. 421–437).
- Couger, J. D., Higgins, L. F., & McIntyre, S. C. (1990). Differentiating creativity, innovation, entrepreneurship, intrapreneurship, copyright and patenting of IS products/processes. *Twenty-Third Annual Hawaii International Conference on System Sciences*, 370–379.
- Davidavičienė, V. (2018). Research Methodology: An Introduction. In J. Marx Gómez & S. Mouselli (Eds.), *Modernizing the Academic Teaching and Research Environment: Methodologies and Cases in Business Research* (pp. 1–23). Springer International Publishing.
- Gallas, J. C., Pimenta, A. A., Gonçalo, C. R., & Rodrigues, R. B. (2019). *Economia Criativa e Inovação Social: uma análise a partir de uma comunidade de*

- artesãos cearenses. *Desenvolvimento Em Questão*, 17(49).
- Hahn, R., Spieth, P., & Ince, I. (2018). Business model design in sustainable entrepreneurship: Illuminating the commercial logic of hybrid businesses. *Journal of Cleaner Production*, 176, 439–451.
- Hamdan, H., Imaningsih, E. S., Ali, H., Raharja, I., & Ilhamalimy, R. (2022). Green fashion concept approach to MSMEs' sustainable green development. *Riau Journal of Empowerment*, 5(3).
- Javeed, A., Shamshad, A., Awais, K., & Ali, R. (2022). Screen printing of cellulose electrospun nanofibres with PDA polymer. *The Journal of The Textile Institute*, 113(10), 2059–2067.
- Kartika, N., Iwan, P., & Nuryasman, M. N. (2020). Ensuring Local Wisdom Environmental Sustainability Through Sustainable Entrepreneurial Development: A Conceptual Framework for Kulonprogo, Yogyakarta. *Proceedings of the Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2019)*, 182–187.
- Nieto Sotelo, E. (2017). *Social and Cultural Implications of the New Communications Technologies : Its Human Rights Education Challenges in the Current Century*. 0(81–100), 81–100.
- Rohidi, T. R. (2014). *Metodologi Penelitian Seni*. Cipta Prima Nusantara.
- Rostomyan, A. (2014). The Impact of Emotions in Marketing Strategy. In A. Ternès & I. Towers (Eds.), *Internationale Trends in der Markenkommunikation: Was Globalisierung, neue Medien und Nachhaltigkeit erfordern* (pp. 119–129). Springer Fachmedien Wiesbaden.
- Sauer, M., Meilchen, S., Kalleder, A., Mennig, M., & Schmidt, H. (2004). Screen Printing. In M. A. Aegerter & M. Mennig (Eds.), *Sol-Gel Technologies for Glass Producers and Users* (pp. 117–122). Springer US.
- Sugiarto, E., Naam, F., Hidayah, R., & Fiyanto, A. (2024). *Eco-Friendly Design untuk Mitigasi Ecopreneur dan Perluasan Literapreneur Start-Up Sablon dan Apparel Semarang*.
- Yang, Y. (2017). Renaissance of Urban Industrial Heritages on the Background of Creative Industry Development. *Proceedings of the 2017 International Conference on Culture, Education and Financial Development of Modern Society (ICCESE 2017)*, 467–471.