

From Craft to Innovation: The Contribution of Sameri Hamlet's Female Weavers to Sustainable Development Goals in Society 5.0 In Sumbawa

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Abstract. This study facilitates the achievement of SDGs in Society 5.0 by transforming traditional weaving skills into economically viable products through empowering women by enhancing the potential role of women weavers in Sameri Hamlet, Sumbawa. This study uses thematic analysis to investigate data obtained from interviews, observations, and document analysis involving six women weavers, three government officials, and one NGO representative. The study shows that innovations in design and diversification of products made and digital marketing increase income streams and expand the client base. Natural dyes and waste reduction measures that support SDG 12 and responsible consumption and production also facilitate progress towards SDG 8 by ensuring decent work and economic growth and stable employment and sustainability. Training courses and community programs have equipped weavers with the ability to respond to market demand while maintaining traditional integrity. As women take on traditionally male-dominated roles and generate primary income, their contribution to achieving gender equality (SDG 5) has been significant. Limited digital literacy, limited market access, and tensions between preserving tradition and modernization characterize the challenges associated with the transition to Society 5.0. The study advocates targeted initiatives, such as digital skills enhancement and policies, to sustainably integrate traditional crafts into larger markets. The study shows how important it is for Sameri weavers to be resilient and adaptable to protect their culture and drive economic growth as a means to achieve sustainable development in rural Indonesia.

Keywords: Female Weavers; Economic Empowerment; Sustainable Development Goals (SDGs); Society 5.0

INTRODUCTION

Weaving in Sameri Hamlet, Poto Village, Sumbawa Island, has long been a significant cultural and economic endeavor, largely led by women. Weaving preserves cultural history and provides a source of income for female weavers and their families. As society moves towards a more integrated technological era, called Society 5.0, there is increasing potential to enhance traditional crafts through innovation. Society 5.0 focuses on the integration of the physical and digital realms, facilitated by transformative technologies such as the Internet of Things, artificial intelligence, and big data. This aims to transition toward addressing social issues while maintaining economic prosperity.

The craft of weaving, which has its historical origins in Sumbawa, has a long history of being part of the culture and playing a significant role in economic activities, with women primarily responsible for this skill heritage (Mamidipudi & Bijker, 2018). However, the Sumbawa weaving industry has recently faced challenges due to mass production and industrialization. This is happening not only in Sumbawa but also to almost all weavers who are born from a culture and history that has eroded the sustainability of traditional weaving techniques (Peng, Chung, & Kieu, 2020). Nevertheless, Sameri female weavers have shown resilience and adapted their skills to meet contemporary market demands, and this has been

followed by most weavers by making various innovations so that they can preserve the traditional meaning of their crafts (Mamidipudi & Bijker, 2018).

Research highlights the creativity and conservation of traditional crafts in sustainable development. Sukarara regional weaving in Central Lombok, West Nusa Tenggara, and weaving in Poco Rutang Village, Lembor District, West Manggarai Regency, East Nusa Tenggara Province are two examples of how historic weaving skills can be combined with fashion design and sustainable engineering to make new ways for artisan goods to be sold and raise environmental awareness among consumers (Mukhlis, Mukhsin, & Anggriani, 2022). The research by Mamidipudi & Bijker (2018) on the weaving heritage of Tanimbar Island, Indonesia, shows how important it is for families to learn this traditional skill and pass it down from one generation to the next for the community's cultural and economic well-being (Terry, Pelealu, Umbase, & Pane, 2022).

The weaving industry in Sumbawa is considered an important element of the regional economy, as it guarantees income and employment opportunities for women. Based on this, diversifying traditional Sumbawa woven fabrics into innovative fashion accessories will attract new artisans, create jobs with stable incomes, and increase the competitiveness of Sumbawa woven fabrics nationally (Deni, 2023). Research has emphasized the need to explore measures to empower weavers, ensuring the sustainability of Indonesia's traditional weaving communities (Wiyatiningsih & Oentoro, 2020). However, traditional weaving faces challenges in adapting to changing market demands and the increasing prevalence of mass-produced textiles.

METHOD

This study utilizes topic analysis and qualitative methods to understand the contributions of female weavers from Sameri Hamlet to the sustainable development goals within Society 5.0. A total of ten respondents participated in this study: six female weavers, three local government officials, and one representative from a related NGO. Thematic analysis was chosen because it makes it easier to find, analyze, and make sense of meaning patterns in the dataset. This fits well with the exploratory nature of the current study (Braun & Clarke, 2006).

In this study collected data through semi-structured interviews, observations, and document analyses. Discussions with government officials and the NGO representative emphasized systematic factors affecting the decade-long enterprise, while semi-structured interviews explored the weavers' perspectives on their craft, challenges, and opportunities for innovation. Along with the large amount of qualitative data gathered from interviews, observations of weaving techniques and interactions in the community were made to put the results in context (Nowell, Norris, White, & Moules, 2017).

This research, researcher classified the data to illustrate themes of local community socioeconomic impacts, sustainability methods, and innovative design in handicraft. To ensure global and societal significance, these topics were validated against essential frameworks, including the UN Sustainable Development Goals and the principles of Society 5.0. This systematic approach enables a comprehensive understanding of the role weavers play in fostering sustainability and creativity while addressing local challenges (Braun & Clarke, 2013). In the method, authors should explain the rationale for the application of specific approaches, methods, procedures or techniques used to identify, select, and analyze information applied to understand the research problem/project, thereby, allowing the readers to critically evaluate your project's/study's overall validity and reliability.

RESULTS AND DISCUSSION

The results and discussion based on thematic analysis found three major themes which were findings from the results of observations and interviews during the research, consisting of:

a) Innovation in Weaving Practices

The weavers of Sameri Hamlet exhibited their adaptability by integrating modern elements into this traditional craft. Numerous weavers have advanced from creating sarongs to designing various products, such as purses, wallets, and outfit accessories. From Sameri Hamlet onward, women weavers have slowly started to use new tools and methods in their traditional weaving. They've used digital marketing to get their goods in front of more people, which has helped them become more well-known and find new markets more easily. Because of how modern fashion has changed things, some weavers have even added new materials and styles to their work. This lets them meet the needs of today's customers while also paying tribute to the past.

" We realize that conventional sarongs alone cannot attract the interest of young consumers, which has encouraged us to develop more functional products and to innovate and diversify our product." (AR03).

This alteration reflects the adaptability of weavers to client preferences and evolving market demands. Local governments and NGOs facilitate this innovation through specialized training programs. A representative for the NGO stated,

"Workshops have played a significant role in introducing contemporary weaving techniques, including the sophisticated operation of looms and the application of natural dyes." (JK 09)

These activities not only augment the marketability of artists' items but also expand their competencies as craftsmen. A crucial factor in achieving economic advancement and preserving cultural heritage is the integration of traditional knowledge with modern technology. As a result of these improvements, younger members of the hamlet began to regard weaving as a feasible career option. A government official stated,

"We are observing increased interest from the youth due to the stylish appearance and wider appeal of the new products." (SA01)

This generational transition is essential to ensure the continuation of the Sumbawa weaving heritage. Balancing tradition with innovation poses a challenge. Several weavers expressed concerns regarding the erosion of cultural authenticity.

"We do not wish to disregard the traditional methods and practices inherited from us" (YR 02).

This reflects the tension between adhering to cultural identity and embracing modernity. Research in West Nusa Tenggara especially on Sumbawa demonstrates how co-creation strategy methods assist indigenous women entrepreneurs. These strategies got native women involved in cooperative design and production projects, which made their

weaving better by encouraging them to be more creative and gave them more business opportunities. Collaboration also contributed to the preservation of traditional crafts while addressing modern market demands (Kusumastuti, Virgianita, & Juwono, 2023).

b) Contributions to Sustainable Development Goals (SDGs)

The weavers' efforts, especially those related to economic development and sustainability, align closely with the Sustainable Development Goals (SDGs). Through reliable revenue streams, weaving empowers these women to contribute to the attainment of SDG 8 (Decent Work and Economic Growth). A participant stated,

"Weaving has enabled me to provide for my family and finance my children's education." (JK09)

This underscores the transformative potential of traditional crafts in alleviating poverty and fostering communal development. Another area in which the weavers excel is environmental sustainability. A multitude have adopted environmentally advantageous practices, such as reducing waste and utilizing natural dyes.

"We derive colors from indigenous plants, and we repurpose any residual material for other crafts " (AR03).

This practice not only promotes SDG 12 (Responsible Consumption and Production) but also exemplifies a commitment to sustainability that advantages both the local economy and the environment.

The weaver community benefits broadly, as the craft fosters women's empowerment and social togetherness. In this context, governmental assistance has been vital; one official stated,

"We have offered subsidies for the procurement of materials and equipment, guaranteeing that the women can sustain their craft " (FI05).

This multi-stakeholder collaboration strengthens the social impact and sustainability of the sector, and not only does this practice promote gender equality (SDG 5), women weavers also challenge traditional gender roles as the primary income providers in their households, changing the power dynamics within their families and communities. The challenge of increasing this provision continues, with women weavers seeking to optimize their roles and access through collaboration in maintaining and increasing the economic value of their products.

" These products cannot compete due to lack of access to national and international markets, where these woven products actually have quite potential economic opportunities for improving the economy of families and communities " (JK09).

This shows that efforts are needed to systematize these traditional artists in a wider trade network so that the right strategy and collaboration with the government are needed. Where this can help increase market access to improve the economy of families and communities and regional development. This is in line with research conducted in Sumba,

East Nusa Tenggara. Based on that, this study highlights the positive impact of the emergence of female weavers on the family economy and cultural preservation. The ikat weaving practiced by these women not only generates additional income for households but also significantly helps pass on cultural heritage and promote sustainability. This form of empowerment has gained recognition for its contribution and value in the context of the economy and culture (Baiduri & Putri, 2019).

c) Challenges and Opportunities in Society 5.0

The weavers of Sameri Hamlet face both advantages and disadvantages in the transition to Society 5.0. While they continue to value history, they view new technology as a driving force for progress.

" We need to acquire the skills needed to market our products online, but most of us are not sure where to start because of our lack of understanding of technology," (RK04).

This disparity underscores the role of digital literacy in enabling weavers to access broader markets. Recognizing this challenge, the local administration has initiated efforts to enhance digital access. A government official stated,

"We are enhancing internet infrastructure and conducting training sessions to empower the community in the effective utilization of digital tools"(MJ08).

This project aligns with the principles of Society 5.0, emphasizing the integration of technology into society to improve quality of life. Fostering collaborations between designers and retailers that can bridge the divide between traditional craftsmanship and modern consumer demands presents opportunities. The NGO's representative stated,

" We are working with the government to display these products in outlets provided by the government"(JK 09).

This technique can increase the visibility of weavers and expand the market, allowing them to collaborate nationally with other traditional crafts. Weavers expressed concerns about the potential loss of autonomy in their work if they take a big step in increasing sales.

"Participant expressed concern that working with a larger company could require excessive changes to our designs, thus leaving behind the distinctive characteristics of Sumbawa's *kre alang* (SB06)".

This points to the broader challenge of balancing modernism with the need to preserve traditional heritage. Equitable distribution of the benefits arising from Society 5.0 depends on examining these challenges. These findings underscore the multifaceted role of women weavers in Indonesia. They contribute to the economic development of their cities and safeguard cultural heritage. Unresolved issues include limited access to large markets, dependence on technology, and the need to strike a balance between traditional knowledge and contemporary needs. The research findings suggest that women weavers fulfill roles as homemakers and financial providers. In times of financial hardship, the ability to draw on

skills passed down through generations becomes essential to boosting family incomes. This dual role highlights the resilience and adaptability of these women in balancing domestic responsibilities with financial endeavors (Ndandara, Pellu, & Tanof, 2024). These concerns require targeted interventions and supportive policies to empower these women and help them maintain their cultural identity through weaving practices.

CONCLUSION

This research emphasizes the significant role of female weavers from Sameri Hamlet in promoting cultural preservation, economic empowerment, and sustainable development. To revitalize the tenun sector and produce objects that meet contemporary market demands while preserving their cultural essence, artisans have integrated modern innovations with traditional craftsmanship. Consequently, this income-generating and environmentally sustainable production initiative targets the Sustainable Development Goals, particularly SDG 8 concerning Decent Work and Economic Growth and SDG 12 related to Responsible Consumption and Production. These demonstrate that the weavers possess strength and, thus, adaptability in executing their twin role as guardians of the planet and advocates of development. It also reveals persistent challenges such as inadequate computer literacy, restricted market access, and the tension between modernization and cultural authenticity. The transition to Society 5.0 offers opportunities to integrate technology into several trades; nevertheless, this necessitates targeted interventions related to digital training and market expansion initiatives. By surmounting these challenges, the stakeholders would be able to fully leverage the weavers, enabling them to prosper in a contemporary market while safeguarding their traditional heritage that characterizes their craft.

IMPLICATION

In this research initiatives aimed at enhancing digital literacy, expanding market access, and ensuring sustainable material procurement would augment the production capabilities of weavers. It necessitates collaboration among governmental, non-governmental, and commercial sectors to ensure these artists flourish in Society 5.0 while safeguarding their culture. Research indicates that comprehensive tactics are essential for traditional artists to thrive in contemporary culture.

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