

Strengthening Grassroots Batik Production Through Participatory Value Chain Management in Southern Thailand

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Abstract

The batik industry in Southern Thailand faces ongoing challenges related to sustainability, market access, and the long-term viability of traditional craft-based livelihoods. Addressing these challenges requires governance approaches that move beyond conventional top-down interventions. This study explores the role of collaborative value chain management in strengthening the competitiveness and economic resilience of grassroots batik producers, while simultaneously converting cultural heritage into measurable economic value. The research is based on an academic service initiative led by Yala Rajabhat University and applies a combination of Participatory Action Research and quantitative household-level analysis involving 26 households of batik artisans, community enterprises, and women's groups. Project activities were designed to engage actors across the entire value chain and included collective raw material management, digital market development, creative product and packaging innovation, supply network strengthening, and integration with community-based cultural tourism. The results indicate clear economic gains: production costs decreased by approximately 3 percent, while total monthly household income increased from 509,750 THB to 521,400 THB, representing a 3.65 percent rise. In addition, the initiative supported the development of new product prototypes, facilitated the creation of 20 fashion designs selected from 95 national teams, and expanded market access through the digital platform www.popsotik.com. Overall, the findings highlight the potential of community-driven value chain governance as a practical and adaptable model for inclusive and culturally grounded economic development in vulnerable regions.

Keywords: participatory value chain management, batik industry, cultural economy, southern border provinces of Thailand

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Introduction

In recent decades, grassroots economic development and the creative economy have emerged as central frameworks for addressing economic inequality, strengthening local industries, and promoting sustainable development, particularly in developing countries. These approaches emphasize the importance of empowering local communities, enhancing the capacity of small-scale producers, and leveraging cultural capital as a driver of economic value creation (Throsby, 2010; UNESCO, 2018; World Bank, 2020). In many regions, traditional cultural industries have become an important pathway for strengthening community resilience and supporting inclusive economic growth. By transforming local knowledge, craftsmanship, and cultural heritage into marketable products and services, communities can generate economic opportunities while preserving cultural identity.

One influential analytical framework used to understand and enhance the competitiveness of local industries is *value chain analysis*. Originally developed by Porter (1985), the value chain concept emphasizes that economic value is created through a sequence of interconnected activities, including raw material procurement, production processes, product design, marketing, and distribution. Rather than focusing solely on production, the value chain perspective highlights how value can be added at multiple stages of economic activity. Building upon Porter's work, Kaplinsky and Morris (2001) expanded the concept by applying value chain analysis to development contexts, particularly for understanding how small-scale producers in developing economies can improve their position within global and regional markets.

More recently, scholars have emphasized the importance of *participatory governance in value chain management*, particularly when addressing the challenges faced by grassroots producers and community-based enterprises. Research on global value chains has demonstrated that collaboration among multiple stakeholders—including producers, community organizations, government institutions, and knowledge institutions—plays a crucial role in strengthening local industries and improving market access (Gereffi et al., 2005; Humphrey & Schmitz, 2002). Participatory value chain management highlights the role of collective action, knowledge exchange, and institutional support in enabling small-scale producers to enhance their competitiveness while maintaining local control over production and cultural assets.

In Thailand, the promotion of cultural industries has become increasingly important within national development strategies. In recent years, policies related to the *creative economy and cultural soft power* have emphasized the economic potential of cultural heritage industries, including traditional textiles, handicrafts, performing arts, and cultural tourism (Office of the National Economic and Social Development Council, 2022). Traditional textile industries—such as silk weaving, cotton weaving, and batik production—have been identified as key sectors with the potential to contribute to local economic development while strengthening Thailand's cultural identity in global markets (Richards, 2019).

Among these cultural industries, the *batik industry in Thailand's Southern Border Provinces—Yala, Pattani, and Narathiwat—represents an important example of a traditional craft sector deeply embedded in local cultural identity*. Batik production in this region reflects the cultural heritage of Malay-Muslim communities and is closely linked to traditional clothing practices, social customs, and local artistic expression (Yusuf, 2018). Beyond its cultural significance, batik production also plays a critical role in supporting the livelihoods of many households,

particularly women artisans and small-scale entrepreneurs who rely on craft-based production as a source of income.

Despite its cultural and economic potential, the batik industry in the Southern Border Provinces faces several structural challenges. Small-scale producers often encounter difficulties related to limited market access, lack of product innovation, insufficient branding and marketing capabilities, and restricted access to digital technologies for expanding their customer base (UNESCO, 2021). Additionally, competition from mass-produced textile products and imitation goods imported from other regions poses significant challenges for local artisans seeking to maintain their market share. These challenges are further compounded by the broader socio-political context of the Southern Border Provinces, where long-standing conflict and instability have affected economic development, investment opportunities, and tourism activities (Askew, 2015; McCargo, 2012).

In this context, the role of universities and higher education institutions has become increasingly important in supporting community development and knowledge transfer. Universities are widely recognized as key actors in regional innovation systems and community-based development initiatives (Etzkowitz & Leydesdorff, 2000). Through academic service projects, collaborative research, and community engagement, universities can help local industries strengthen their capacity for innovation, develop new products, and expand market opportunities.

Yala Rajabhat University, as a regional university with a mission to support local development, has implemented several academic service initiatives aimed at strengthening community-based industries in the Southern Border Provinces. One such initiative is the project titled *“Enhancing Local Textile Knowledge for Strengthening the Grassroots Economy through Community-Based Tourism.”* This project focuses on strengthening the batik industry in Narathiwat Province through a participatory approach that integrates product development, digital marketing, value chain networking, and cultural tourism promotion.

Although previous studies have explored the development of traditional textile industries in Thailand, much of the existing research has focused primarily on product design, marketing strategies, or tourism promotion. Relatively limited attention has been given to *the role of participatory value chain management in strengthening cultural industries within multicultural and conflict-affected regions* such as Thailand’s Southern Border Provinces. Furthermore, there remains a lack of empirical research examining how collaborative value chain governance can generate measurable economic outcomes for grassroots producers while simultaneously supporting cultural sustainability.

This gap in the literature represents an important research opportunity. Understanding how participatory value chain management can enhance the competitiveness and resilience of cultural industries in vulnerable regions can provide valuable insights for policymakers, development practitioners, and community organizations working to strengthen local economies. In particular, examining the economic and social impacts of participatory value chain initiatives may contribute to broader discussions on inclusive development, cultural economy, and sustainable livelihoods.

Therefore, this study aims to analyze the role of participatory value chain management in strengthening the batik industry in Thailand’s Southern Border Provinces. Specifically, the study investigates how collaborative value chain interventions can improve production

efficiency, increase household income, expand market access, and support the integration of cultural heritage into grassroots economic development.

Objective of Research

To explore the role of collaborative value chain management in strengthening the competitiveness and economic resilience of grassroots batik producers.

Research Methodology

This study employed a *mixed-methods research design*, integrating Participatory Action Research (PAR) with quantitative data collection in order to examine the role of participatory value chain management in strengthening the batik industry in Thailand's Southern Border Provinces. The use of mixed methods allowed the research to capture both the qualitative processes of community participation and the measurable economic outcomes of the development intervention.

Research Design

The research was conducted as part of an academic service initiative implemented by Yala Rajabhat University under the project titled "*Enhancing Local Textile Knowledge for Strengthening the Grassroots Economy through Community-Based Tourism*." The project adopted a participatory approach that actively involved local stakeholders in the development and improvement of the batik value chain. Participatory Action Research was applied to facilitate collaborative learning, problem identification, and collective decision-making among community members, researchers, and local institutions.

Study Area and Target Groups

The study was conducted in *Pasemas Subdistrict, Su-ngai Kolok District, Narathiwat Province*, located in Thailand's Southern Border Provinces. This area has long been recognized as an important center for traditional batik production.

The target groups consisted of local batik producers and community members involved in batik-related economic activities. In total, *26 households participated in the study*, including members from two batik producer groups, a community enterprise group, and local women's groups engaged in textile production and handicraft activities.

Data Collection Methods

Data were collected using both qualitative and quantitative methods.

1. *Participatory workshops and community meetings* were organized to identify key challenges in the batik value chain and to design collaborative development strategies.
2. *Field observations and interviews* were conducted with batik artisans, community leaders, and project participants in order to understand local production practices, knowledge systems, and market constraints.
3. *Household economic surveys* were conducted before and after project implementation to measure changes in income, production costs, and economic activities among participating households.

4. *Project activity documentation* was used to record the implementation of value chain interventions and to monitor project outcomes.

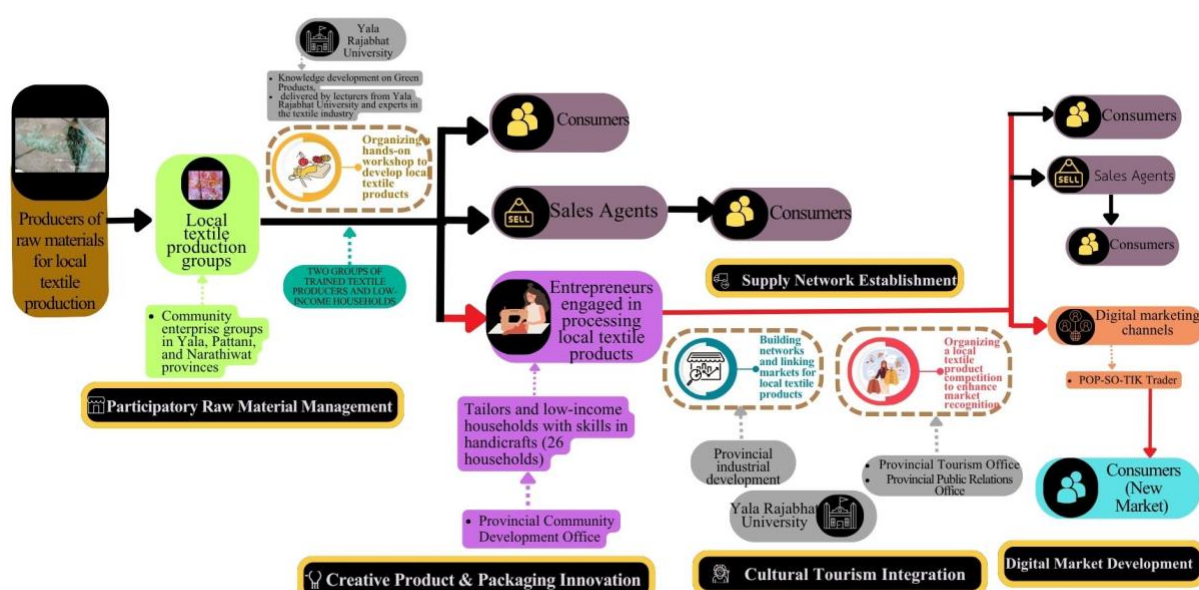
Value Chain Development Activities

The project implemented *five key interventions across the batik value chain*, including:

1. Participatory raw material management to reduce production costs.
2. Development of digital data and online marketing channels.
3. Creative product and packaging innovation to enhance market competitiveness.
4. Establishment of raw material supply networks.
5. Integration of batik production with community-based cultural tourism.

Figure 1

Batik Value Chain and Five Key Interventions



Data Analysis

Qualitative data from interviews, workshops, and observations were analyzed using *thematic analysis* to identify key patterns related to community participation, knowledge exchange, and value chain collaboration. Quantitative data from household surveys were analyzed using *descriptive statistical analysis* to measure changes in production costs and household income before and after project implementation.

The combination of participatory research processes and empirical economic data enabled the study to provide a comprehensive understanding of how participatory value chain management can contribute to the development of cultural industries and grassroots economic resilience in Thailand's Southern Border Provinces.

Results

The results of the study demonstrate that participatory value chain management significantly contributed to strengthening the batik industry at the grassroots level in Thailand's Southern Border Provinces. The findings reveal both economic and social impacts resulting from the collaborative development process implemented through the academic service initiative.

Improvement in Production Efficiency

One of the key outcomes of the project was the improvement in production efficiency through participatory raw material management. By establishing cooperative networks for sourcing raw materials and negotiating with suppliers, batik producers were able to reduce their production costs. The findings indicate that production costs decreased by *at least 3 percent* compared with the pre-project baseline. This reduction in input costs improved the financial sustainability of small-scale batik producers and enhanced their capacity to maintain stable production.

Household Income Growth

The economic impact of the project was also reflected in the growth of household income among participating producers. Data collected from 26 *participating households* showed that the combined monthly household income increased from 509,750 THB to 521,400 THB, representing a *3.65 percent increase* following the implementation of value chain development activities. Although the increase may appear moderate, it demonstrates the positive economic effect of participatory value chain interventions within a relatively short project period.

Table 1

Summary Table of Target Groups With Household Income Growth

Number of People	Annual Growth Rate (%)	Growth Level
12 people	0% or negative	Stagnant / Declining
2 people	0.1% – 2%	Slow growth
4 people	2.1% – 4%	Moderate growth
4 people	4.1% – 7%	Good growth
4 people	More than 7%	Very high growth
Total	2.1% – 4%	Moderate growth

The summary table of the target groups with household income growth shows that, overall, the growth rate falls within the *moderate growth* category. The group with the highest growth rate was classified as *very high growth*, consisting of 4 *participants*. This was followed by *good growth* with 4 *participants*, *moderate growth* with 4 *participants*, and *slow growth* with 2 *participants*. Meanwhile, 12 *participants* experienced *stagnant or declining growth*.

The increase in employment was driven by the growing demand for products among consumers, which required the group to recruit additional workers. However, newly recruited workers must possess appropriate qualifications and skills relevant to the production process. The survey results revealed that although some individuals were interested in joining the workforce, many lacked the necessary skills and expertise. Therefore, it is necessary to organize training programs to enhance their skills and improve their capacity to perform the required tasks more effectively.

Product Innovation and Creative Development

Another significant outcome of the project was the development of new batik-based products and creative designs. The initiative successfully supported the creation of *two new product and packaging prototypes* that reflect local cultural identity while responding to contemporary market demands.

Figure 2

Packaging Design Type 1: Perforated Batik Fabric Box With an Elephant-Ear Style



Figure 3

Packaging Design Type 2: Batik Fabric Box With an Elephant-Ear Style



Figure 4

Sticker Made From PP (Polypropylene) Plastic Material



In addition, a national fashion design competition organized under the project attracted 95 *design teams from across the country*, resulting in the development of 20 *fashion prototypes* using locally produced batik textiles. These activities helped increase public awareness of Southern Thai batik and encouraged collaboration between designers and community-based producers.

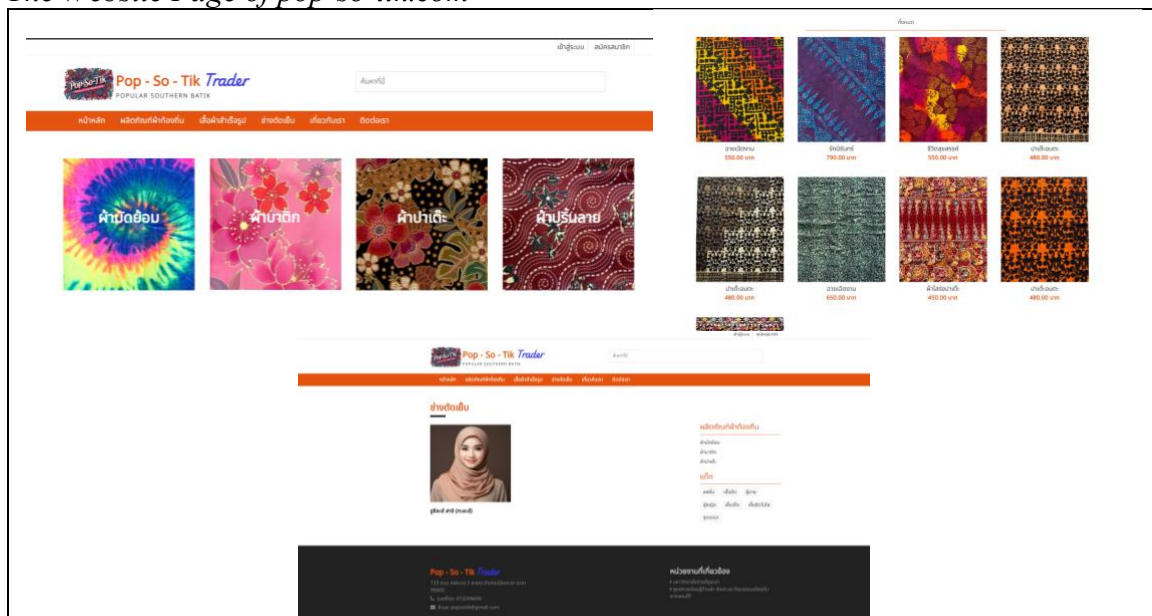
Figure 5
Design in POP-SO-TIK Fashion Show



Expansion of Digital Market Access

The project also strengthened market access by introducing digital marketing tools and online sales platforms. The establishment of the www.popsotik.com digital platform enabled local producers to promote their products to a wider audience beyond the local community. The platform functions as both an online marketplace and a knowledge-sharing space that connects batik producers, designers, and consumers. As a result, producers gained new opportunities to reach national markets and expand their customer base.

Figure 6
The Website Page of pop-so-tik.com



Community and Social Impacts

Beyond economic outcomes, the project also generated broader social impacts within the participating communities. The strengthening of producer networks encouraged greater collaboration among batik artisans, women's groups, and community enterprises. In addition, the project contributed to increased employment opportunities within the community, particularly for women and young people involved in batik production, tailoring, and product design.

Furthermore, the integration of batik production with community-based cultural tourism helped reinforce the role of batik as an important cultural asset. By linking traditional craftsmanship with tourism activities and creative industries, the project supported the preservation of local knowledge while simultaneously creating new economic opportunities.

Moreover, the evaluation of participant satisfaction in the *Batik Fashion Design Competition under the concept "Pop So Tik (Popular Southern Batik)" – Round 2* involved a total of 25 respondents. The assessment examined four key dimensions: (1) project publicity, (2) supervision and consultation by academic advisors, (3) competition management, and (4) information services provided by project staff. The results show that the majority of respondents were *female* (68%), while 32% were *male*. In terms of age, most participants were 25–35 years old (48%), followed by those aged 35 years and above (28%), and 15–25 years old (24%). Regarding educational background, the vast majority held a *bachelor's degree* (96%), while 4% held *postgraduate degrees*. These characteristics indicate that the competition successfully attracted participants from the *young professional and creative workforce*, which is an important target group for the development of creative industries and cultural fashion design.

Table 2

Summary of Overall Satisfaction Evaluation

Dimension	Mean	Standard Deviation	Satisfaction Level
Project Publicity	4.37	0.44	High
Academic Advisor Supervision	4.34	0.87	High
Competition Organization	4.68	0.44	Very High
Information Services by Staff	4.58	0.69	Very High
Overall Satisfaction	4.49	0.61	High

The overall satisfaction score of 4.49 indicates that participants perceived the project as *highly satisfactory*. The strong performance of the competition organization and staff coordination demonstrates the effectiveness of the project management approach. Furthermore, the positive feedback suggests that the *"Pop So Tik" batik fashion design competition successfully promoted creativity, cultural identity, and collaboration between designers and local batik producers*, thereby supporting the broader objectives of cultural industry development and creative economy promotion in Thailand's Southern Border Provinces.

Overall, the findings suggest that participatory value chain development can serve as an effective mechanism for enhancing the resilience and sustainability of grassroots cultural industries. In the context of Thailand's Southern Border Provinces—where economic vulnerability and socio-political challenges remain significant—community-based value chain

governance provides a promising pathway for inclusive economic development and cultural sustainability.

Discussion

The findings of this study highlight the significant role of participatory value chain management in strengthening the batik industry at the grassroots level in Thailand's Southern Border Provinces. The results demonstrate that collaborative value chain development can enhance production efficiency, expand market access, and create new economic opportunities for community-based producers. These findings are consistent with previous research on the development of traditional textile industries and community-based craft economies.

First, the development of product innovation and improved product quality observed in this study aligns with the findings of *Srivichien (2018)*, who emphasized that product diversity and appropriate pricing strategies are key factors influencing consumer purchasing decisions in local textile markets. Srivichien's study found that consumers tend to compare the perceived value of products with their price, and purchasing decisions are more likely when the perceived value exceeds the cost. Similarly, the batik development initiative in this research introduced new product prototypes and creative fashion designs that combined traditional batik patterns with modern design concepts. This approach helped increase the attractiveness of batik products to contemporary consumers while maintaining cultural authenticity. The integration of traditional patterns with innovative design elements reflects the importance of adapting cultural products to changing market preferences.

Second, the findings regarding marketing strategies and market access are consistent with the work of *Pongswirittorn (2017)*, who identified product quality and integrated marketing communication as the most important factors influencing consumer decisions in the textile handicraft sector. Pongswirittorn's research highlighted the importance of emphasizing cultural identity, craftsmanship, and the uniqueness of local products in marketing strategies. In addition, promotional activities such as exhibitions, handicraft fairs, and digital marketing platforms play a crucial role in expanding market reach. The results of this study support these findings, particularly in relation to the use of digital platforms such as *www.popsotik.com* to promote batik products. The digital platform not only functioned as an online marketplace but also served as a medium for communicating cultural narratives and product stories to wider audiences. This demonstrates how digital tools can enhance the visibility and competitiveness of community-based cultural industries.

Third, the integration of batik production with cultural tourism in this study corresponds with the findings of *Chum-oon (2015)*, who examined the development of marketing management processes for handwoven cotton products in community-based enterprises. Chum-oon's research indicated that traditional craft industries can benefit significantly from linking production activities with community tourism initiatives. By incorporating local cultural practices and traditional lifestyles into tourism experiences, communities can generate additional income opportunities while promoting cultural preservation. In the present study, the integration of batik production with creative cultural tourism activities allowed visitors to engage with the cultural heritage of batik-making communities, thereby increasing the economic value of the craft while strengthening local identity.

Furthermore, the findings of this study highlight the importance of collaboration among various stakeholders, including community producers, designers, academic institutions, and

government organizations. This collaborative approach reflects the broader concept of participatory governance in value chain development, where knowledge exchange and shared decision-making contribute to sustainable economic outcomes. The involvement of Yala Rajabhat University played a critical role in facilitating knowledge transfer, supporting product development, and connecting community producers with broader creative networks.

Another important aspect emerging from this research is the role of cultural capital in driving economic development. Batik production in the Southern Border Provinces is deeply rooted in the cultural identity of Malay-Muslim communities. By transforming traditional craftsmanship into marketable products and integrating it with modern creative industries, the project helped reinforce the cultural significance of batik while simultaneously generating economic benefits for local communities.

Overall, the findings of this study suggest that participatory value chain management can serve as an effective strategy for strengthening traditional craft industries in culturally diverse and economically vulnerable regions. By combining product innovation, collaborative marketing strategies, digital market access, and cultural tourism integration, community-based industries such as batik production can achieve greater economic resilience while preserving their cultural heritage.

Conclusion and Recommendations

Conclusion

This study examined the role of participatory value chain management in strengthening the batik industry in Thailand's Southern Border Provinces through a community-based development initiative implemented by Yala Rajabhat University. The findings demonstrate that participatory approaches to value chain development can generate both economic and social benefits for grassroots producers while supporting the sustainability of cultural industries.

The study shows that collaborative management of raw material procurement and supply networks contributed to improved production efficiency and reduced production costs by at least 3 percent. In addition, quantitative data from 26 participating households revealed a measurable increase in total monthly household income, rising from 509,750 THB to 521,400 THB, representing a 3.65 percent increase following project implementation. These results indicate that participatory value chain interventions can contribute to incremental but meaningful economic improvements for community-based producers.

Beyond economic outcomes, the project also strengthened social networks among batik artisans, women's groups, and community enterprises. The development of new product prototypes and the organization of a national fashion design competition further helped to connect local producers with broader creative networks. The introduction of the digital platform *www.popsotik.com* expanded market access and enabled community producers to reach wider consumer groups beyond their local markets.

Overall, the findings suggest that participatory value chain governance can serve as an effective strategy for strengthening cultural industries and promoting grassroots economic development, particularly in multicultural and economically vulnerable regions such as Thailand's Southern Border Provinces.

Recommendations

Based on the findings of this study, several recommendations can be proposed for policymakers, development practitioners, and academic institutions.

First, government agencies and local development organizations should support the expansion of participatory value chain initiatives in traditional craft industries. Providing training programs, technical assistance, and financial support can help strengthen the capacity of grassroots producers and enhance their ability to compete in broader markets.

Second, universities should continue to play an active role in community-based development through academic service programs and knowledge transfer activities. Collaboration between higher education institutions and local communities can facilitate innovation, product development, and capacity building within local industries.

Third, the integration of digital technologies and online marketing platforms should be further promoted to improve market access for small-scale producers. Digital platforms can help reduce geographical barriers and connect community-based enterprises with national and international markets.

Finally, future research should explore the long-term sustainability of participatory value chain development in cultural industries. Expanding the scope of research to include larger producer networks and longer evaluation periods would provide a more comprehensive understanding of the economic and social impacts of such initiatives.

References

- Askew, M. (2015). *Conflict and development in Thailand's deep South*. Silkworm Books.
- Chum-oon, M. (2015). *Development of marketing management processes for handwoven cotton products: A case study of Ban Don Luang weaving group, Pa Sang District, Lamphun Province*. Chiang Mai University.
- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From national systems and “Mode 2” to a triple helix of university–industry–government relations. *Research Policy*, 29(2), 109–123.
- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12(1), 78–104.
- Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies*, 36(9), 1017–1027.
- Kaplinsky, R., & Morris, M. (2001). *A handbook for value chain research*. International Development Research Centre (IDRC).
- McCargo, D. (2012). *Tearing apart the land: Islam and legitimacy in Southern Thailand*. Cornell University Press.
- Office of the National Economic and Social Development Council. (2022). *Thailand's creative economy and soft power development strategy*. NESDC.
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. Free Press.
- Richards, G. (2019). Cultural tourism: A review of recent research and trends. *Journal of Hospitality and Tourism Management*, 36, 12–21.
- Srivichien, T. (2018). Service marketing strategies for traditional textile shops in Northeastern Thailand. *Journal of Business and Social Sciences*, 9(2), 45–60.
- Throsby, D. (2010). *The economics of cultural policy*. Cambridge University Press.
- UNESCO. (2018). *Creative economy report: Cultural industries for sustainable development*. UNESCO.
- UNESCO. (2021). *Digital transformation and cultural industries*. UNESCO.
- World Bank. (2020). *Local economic development and inclusive growth*. World Bank.
- Yusuf, M. (2018). Batik traditions and cultural identity in Southeast Asia. *Journal of Cultural Heritage Studies*, 14(3), 112–128.

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