



Development of Innovative Yan Lipao Handicraft Products for the Creative Economy: Case Study of Thai Entrepreneurs

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Abstract

This study aims to explore the current application of innovation concepts in the development of creative economy-oriented handicraft products by entrepreneurs in Nakhon Si Thammarat Province and to investigate approaches for utilizing innovation to enhance the development of Yan Lipao (*Lygodium japonicum*) handicraft products within the creative economy framework. The research employs a qualitative methodology, gathering data from 25 informants, including 15 Yan Lipao handicraft entrepreneurs in Nakhon Si Thammarat, 4 suppliers of Yan Lipao raw materials, 3 representatives from the Nakhon Si Thammarat Provincial Industry Office, and 3 representatives from the Community Development Office in Mueang District, Nakhon Si Thammarat. Data were collected through in-depth interviews and analyzed using content analysis. The findings reveal that the development of Yan Lipao handicraft products within the creative economy emphasizes the critical role of human resources, particularly the skills and expertise of artisans in producing unique and valuable products. Knowledge transfer among artisans facilitates both skill advancement and the preservation of craftsmanship within the community. Despite challenges such as a lack of interest among younger generations and limited adoption of advanced technologies, the integration of innovative approaches, such as product development and online marketing, offers opportunities to expand markets domestically and internationally without compromising the distinctiveness of the craft. Striking a balance between innovation and traditional values is key to building a sustainable and competitive business in the digital age.

Keywords: Innovation development, Yan Lipao handicraft, *Lygodium japonicum*, creative economy products, entrepreneurs

Introduction

A crucial factor in driving the creative economy is human resources. When comparing Thailand with a leading ASEAN nation in creative industries like Indonesia, it is evident that the two countries have comparable quality levels of factors supporting the development of the creative economy. However, Indonesia employs approximately 16 million people in creative industries, while Thailand has only around 1 million creative workers, a number that is steadily declining due to an aging workforce and a lack of successors. This decline contributes to the slow growth of the Thai economy. Considering that most creative industries thrive on efficient labor, Indonesia's larger workforce provides a significant advantage in expanding businesses and creating jobs within the creative industries (Plan for the Development of Creative Industries, 2019) ^[7]. For Thailand to achieve success in its creative economy, it is essential to transfer creative economy concepts to local communities, particularly those with unique local wisdom, identity, culture, traditions, and craftsmanship. Local culture fosters diversity in handicrafts, promotes community income, and enhances economic opportunities for these communities. This study focuses on the innovation of Yan Lipao handicraft products, the operations of Yan Lipao artisan groups, and the approaches for developing Yan Lipao handicrafts in Nakhon Si Thammarat Province through innovation-oriented perspectives.

The findings of this research will benefit businesses and relevant organizations by providing guidelines for improving Yan Lipao handicrafts in Nakhon Si Thammarat through the application of innovative concepts to develop the creative economy, which serves as a fundamental foundation for local development. Additionally, the research outcomes will assist community leaders and stakeholders in aligning Yan Lipao handicraft products with the needs of both domestic and international consumers.

Research Objectives

1. To examine the current application of innovation concepts in the development of creative economy-oriented handicraft products by entrepreneurs in Nakhon Si Thammarat Province.
2. To explore approaches for utilizing innovation in the development of Yan Lipao handicraft products within the creative economy framework by entrepreneurs in Nakhon Si Thammarat Province.

Literature Review

Yan Lipao, or Lipao (*Lygodium japonicum*), is a type of fern or vine that can grow extensively, entwining itself around other trees. This fern can stretch for several meters, with some species growing up to 5 meters in length, though it typically extends about 1–2 meters.

Innovation refers to the adoption of new methods or practices that have been tested and developed incrementally, differing significantly from traditional approaches. According to Morton (1971)^[5], innovation is not about entirely replacing or eliminating existing systems but rather improving, enhancing, and adapting them for the survival of the system. In essence, innovation involves creating differentiation from existing methods, refined through repeated experimentation until it becomes a distinct and novel creation.

Product innovation refers to products that have been commercially improved or newly introduced to the market. These innovations can be new at the global, national, or organizational level. In this study, product innovation refers to innovations in Yan Lipao handicraft products. Craft products are goods or objects created by hand or using traditional tools. These products are often unique and reflect the culture and local wisdom of their creators. In this study, craft products include items made from Yan Lipao, handwoven or traditionally woven textiles such as handwoven fabrics, silk, and cotton, as well as wooden products like furniture and carvings. Additionally, they encompass goods made from various materials such as silver, copper, gemstones, or natural resources. Examples of natural material products include those made from Yan Lipao, bamboo, palm leaves, or thatch grass, such as baskets, hats, mats, cushions, pillows, and household items like tablecloths. Crafts product design innovation involves the process of applying creativity and technology to enhance handicrafts, adding value and increasing market competitiveness while addressing the needs and expectations of modern consumers. This includes the integration of technologies such as CAD (Computer-Aided Design) and 3D printing to design and prototype products, enabling rapid and precise testing and refinement. It also involves the use of specialized or environmentally friendly materials, such as natural plant fibers, recycled materials, or bioplastics, to enhance durability while minimizing environmental impact. Designing products with a focus on consumer usability, such

as ergonomic designs, adaptable forms, or features that facilitate storage and transportation, is another crucial aspect. Research and development aimed at creating products that align with market trends, such as contemporary styles, multifunctional features, or distinctive characteristics, is also essential. Additionally, incorporating storytelling related to local wisdom or the historical significance of the products adds emotional value and meaning, making them more appealing to consumers. Collaborative efforts with local communities in the design and production processes can generate employment, preserve traditional knowledge, and support local economies. Furthermore, modern marketing strategies, including branding that highlights the unique characteristics of the crafts and leveraging online platforms for market expansion, play a significant role. Incorporating these innovative approaches into the design of crafts products not only enhances their appeal and competitiveness in the market but also contributes to preserving and promoting local wisdom, ensuring its continued growth and sustainability. Factors of production refer to the resources and components utilized in the production of goods and services. They are generally classified into four main categories: Land, which includes all natural resources used in production, such as agricultural land, minerals, forests, water sources, and natural energy; Labor, which encompasses the workforce involved in producing goods and services, including their knowledge, capabilities, and skills; Capital, which refers to tools, equipment, and assets used in production, such as machinery, buildings, production materials, and financial resources for investment; and Entrepreneurship, which involves individuals responsible for managing and coordinating resources to produce goods and services, as well as incorporating innovation and creativity to improve production processes and marketing strategies. Each factor plays a crucial role in creating added value and enhancing production efficiency. Effective management and utilization of production factors promote productivity and competitiveness in businesses and the economy as a whole. Marketing factors, on the other hand, involve components that influence the success of delivering goods and services to the market and meeting consumer needs. These include Product, which represents what a business offers to customers, encompassing features, quality, design, packaging, branding, and after-sales services. Developing products that align with customer needs and expectations is essential. Price refers to setting appropriate pricing for goods and services, considering costs, competition, and the purchasing power of the target audience.

The use of pricing strategies such as discounts, installment payments, or promotional pricing is essential for attracting customers. Place refers to the distribution channels and methods used to deliver products to consumers. Selecting appropriate and efficient channels, as well as managing inventory for timely and effective delivery, is crucial. Promotion encompasses activities and strategies for communicating and promoting products or services to consumers, including advertising, public relations, direct sales, promotional campaigns, and the use of social media. Building awareness and interest in products is vital for boosting sales. People play a significant role in providing services and creating positive customer experiences. Process pertains to the steps and procedures involved in delivering products and services to customers, where efficient process management enhances customer satisfaction. Physical

Evidence includes tangible or visible elements that build consumer confidence, such as store design, logos, branding, or appealing and credible packaging. Effectively managing these marketing factors enhances competitive advantage and

enables businesses to better meet consumer needs. A conceptual framework for this study can be developed as illustrated in Figure 1.



Fig 1: Conceptual Framework for the Study

Research Methodology

This research was designed using a qualitative research methodology to gather in-depth insights into the current application of innovation concepts in the development of creative economy-oriented handicraft products, as well as the use of innovation in the development of Yan Lipao handicraft products within the creative economy framework by entrepreneurs in Nakhon Si Thammarat Province.

Following the approach of Hennink and Kaiser (2021) [3], the researcher determined a sample size of 25 key informants. These included Yan Lipao handicraft entrepreneurs, Yan Lipao raw material suppliers, and government officials associated with the Yan Lipao handicraft industry in Nakhon Si Thammarat Province. The participants were selected through purposive sampling.

The research tools consisted of two main instruments: in-depth interviews and focus group discussions. Primary data collection involved the researcher conducting in-depth interviews and facilitating focus group discussions, which were scheduled in advance. Interview questions were sent to key informants beforehand to allow them time to review and prepare their responses for the scheduled sessions. After data collection, the accuracy of the data was verified using data triangulation, which involved cross-checking information from multiple sources in terms of time, place, and individuals. Additionally, methodology triangulation was employed by comparing data obtained from interview transcripts, focus group discussions, non-participant observations, and field notes with findings from existing studies. The researcher analyzed the collected data while

incorporating contextual information, including the characteristics of the key informants. The content analysis was conducted based on manifest content, measuring the frequency of words or statements that appeared in the documents. Qualitative data analysis was supported by computer software, following the approach outlined by Chai Phothisita (2006) [6].

Research Findings

Objective 1: The Current Application of Innovation Concepts in the Development of Creative Economy-Oriented Handicraft Products

The findings reveal various factors influencing the application of innovation concepts in the development of Yan Lipao handicraft products. Regarding production factors, human resources play a crucial role, with the skills and expertise of artisans significantly affecting product quality. However, challenges persist, including a shortage of skilled labor and limited areas for cultivating raw materials. Natural resources and raw materials face additional obstacles, such as difficulty in selecting appropriate raw materials and a lack of skilled workers for their preparation. In terms of capital, small-scale entrepreneurs encounter difficulties in accessing funding, particularly when applying for bank loans due to restrictive conditions. Furthermore, government support remains insufficient, particularly in providing research and development funding.

From a marketing perspective, customer demand highlights the importance of meeting high expectations regarding product quality, aesthetics, and uniqueness. The competitive

landscape poses challenges for Yan Lipao handicrafts, with competition arising from both domestic producers and imported goods. Despite pricing constraints, Yan Lipao products maintain a competitive advantage due to their distinctive characteristics and superior quality. Consumer purchasing behavior increasingly emphasizes the importance of product variety, uniqueness, and alignment with environmental and sustainability values. Adapting to online markets is vital, with the use of technology enabling convenient and personalized shopping experiences. Transparency in product information fosters consumer trust, while the development of aesthetically pleasing and reusable packaging adds value and enhances customer satisfaction. Government policy plays a pivotal role in supporting the development of Yan Lipao handicrafts. Policies related to research and development, investment promotion, and intellectual property protection are crucial for fostering innovation and enhancing the competitiveness of these products. These findings underscore the importance of addressing production and marketing factors while leveraging supportive policies to ensure the sustainability and growth of Yan Lipao handicrafts within the creative economy.

Objective 2: Developing Innovation for Yan Lipao Handicraft Products within the Creative Economy Framework

The development of innovation in the Yan Lipao handicraft business within the creative economy framework is a crucial step in elevating local products to become more appealing and sustainable in a competitive market. However, data analysis reveals that entrepreneurs in the region are still at a relatively low stage of development. Several factors pose significant barriers, preventing full advancement. These challenges can be categorized into three main areas: a lack of personnel with expertise in innovation development, insufficient funding for product development, and uncertainty regarding government policies.

1. **Lack of Personnel with Expertise in Innovation Development** One of the primary challenges faced by Yan Lipao entrepreneurs is the absence of skilled personnel with knowledge and expertise in innovation

development. This expertise is essential for creating handicraft products that effectively meet market demands. Innovation development goes beyond merely improving product quality; it also encompasses research and development of new materials, designing new products that align with market needs, and creating modern, efficient production processes. Most local entrepreneurs lack an understanding of these processes and do not have teams proficient in applying new technologies or methods to enhance their products, making it challenging to compete on a global scale.

2. **Insufficient Funding for Product Development** Another major factor hindering innovation in Yan Lipao handicraft businesses is the lack of financial resources for business development and investment. Many businesses in the area struggle to access funding needed for research and development of new products, as well as for purchasing advanced equipment or technologies to improve production efficiency. Developing new techniques or creating new markets to expand the customer base becomes difficult for entrepreneurs with limited financial resources. Often, these entrepreneurs are forced to focus on short-term investments that yield immediate results rather than pursuing innovation, which typically requires a longer timeframe and involves higher risks.
3. **Uncertainty in Government Policies** A significant concern among Yan Lipao entrepreneurs is the uncertainty surrounding government policies, particularly regarding long-term support for handicraft businesses and the creative economy. Many entrepreneurs fear that investments in innovation may not yield sufficient returns, as they cannot be confident in the government's sustained support for this sector. This uncertainty makes them hesitant to invest in new technologies or develop new products, given the potential risks associated with changes in government policy. Such uncertainty can undermine the stability and growth of their businesses. These issues can be illustrated using a fishbone diagram, as shown in Figure 2.

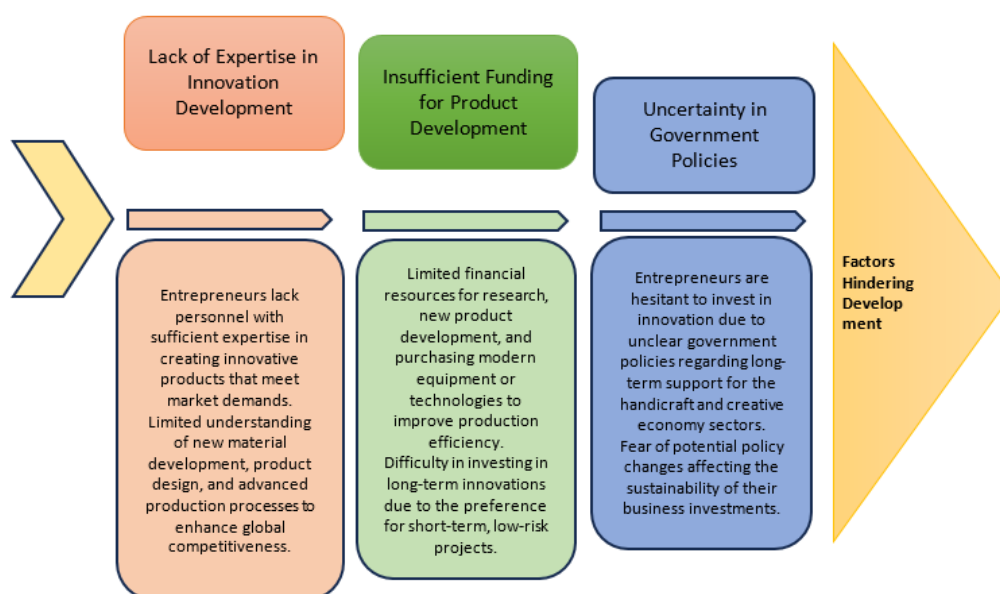


Fig 2: Fishbone Diagram Illustrating Issues in Innovation Development

Discussion

The findings from this study have enabled the synthesis and formulation of key approaches for developing innovation in Yan Lipao handicraft products within the creative economy framework. The significant points of discussion are as follows:

1. **Development of Personnel and Skills** Establishing specialized training systems for handicraft artisans focusing on innovation development is critical. This includes training in design techniques, the use of innovations to improve production processes, and the application of digital tools for online marketing. Encouraging the involvement of experts in product development and fostering collaboration with educational institutions or research centers can bring specialized knowledge to align product development with market trends.
2. **Financial and Resource Support** Creating dedicated funds to support small businesses in the handicraft sector with high growth potential is essential. This could include providing low-interest loans or financial grants for product development. Offering tax incentives or financial subsidies to entrepreneurs engaging in innovation or enhancing product quality to meet higher standards is also recommended.
3. **Government Policy and Support Frameworks** The government should establish clear and consistent policies to promote and support handicraft businesses in the long term. For example, policies that promote creative tourism could provide handicraft products with distribution channels and increased visibility. Additionally, creating a network that connects entrepreneurs, financial institutions, educational institutions, and government agencies could build confidence and mitigate risks arising from uncertainties. This model would enable Yan Lipao handicraft businesses to develop innovations aligned with the creative economy, elevate product quality, and enhance their competitiveness in a sustainable market.

Recommendations from the Research

Practical Recommendations for Entrepreneurs

1. **Training on Production Technologies:** Entrepreneurs should provide training and skill development programs for using tools and technologies in production, such as machinery that enhances production efficiency and reduces costs. Collaborating with experts or organizing local training initiatives can help artisans effectively learn to use new technologies.
2. **Adoption of Data Management and Online Communication Systems:** Entrepreneurs should integrate information technology into production data management, customer communication, and online sales. For example, using ERP systems and social media platforms can increase access to new markets.
3. **Digital Marketing:** Entrepreneurs should leverage digital marketing tools effectively, such as SEO and social media, to promote products and reach new customer segments worldwide.

Policy Recommendations

1. **Policy Recommendations for the Government**
 - **Support Policies for SMEs:** The government should provide financial and technological support to assist

SMEs in investing in modern tools and production systems, as well as in developing digital marketing skills for online platforms.

- **Promotion of National-Level Digital Marketing:** Policies should be implemented to promote the use of online marketing at the national level. These policies should support entrepreneurs in remote areas by improving their access to online markets and fostering the development of strong business networks.
2. **Policy Recommendations for Educational Institutions**
 - **Establishment of Training Centers for SMEs:** Educational institutions should establish training centers focused on developing skills in production technologies, business management, and digital marketing for SME entrepreneurs to help them maximize the benefits of technology.
 - **Research to Develop SME-Appropriate Technologies:** Educational institutions should support research aimed at developing technologies and tools that are specifically designed for SMEs, enabling them to compete effectively in the market.
 - **Collaboration between Entrepreneurs, Government Agencies, and Educational Institutions:** Partnerships between entrepreneurs, government agencies, and educational institutions should focus on the development and application of technologies in SME businesses. This collaboration can help expand markets and improve competitiveness on a global scale.

Conclusion

The findings reveal that the development of creative economy-oriented Yan Lipao handicraft products in Nakhon Si Thammarat highlights the importance of human resource factors, particularly the skills and expertise of artisans in producing unique and valuable products. Knowledge transfer among artisans fosters both skill enhancement and the continuity of craftsmanship within the community. Despite challenges such as declining interest from younger generations and the limited adoption of advanced technologies, incorporating innovative approaches, such as product development and online marketing, can significantly expand market opportunities both domestically and internationally without compromising the uniqueness of the craft. Striking a balance between innovation and traditional craftsmanship is therefore essential for sustainable and competitive business development in the digital age.

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