Creation of Added Value of Traditional Weaving Products of the
Thai Puan People in Pak Phli District, Nakhon Nayok Province to

Commercialization

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Received March 21, 2023; Revised March 30, 2023; Accepted March 31, 2023

## **Abstract**

This study examines the creation of value-added products of traditional weaving fabrics of the Thai Puan people in Pak Phli District, Nakhon Nayok Province for commercial purposes specifically. The objectives were 1) to increase the value of the prototype product processing, 2) to transfer technology to the Thai Puan weaving group, 3) to disseminate the prototype product processing manual and 4) to create an economy for the community to move towards commercialization.

The results showed that most of the respondents were female (98 percent), aged between 41–50 years old (48 percent), and most of the sample's education level was higher than a master's degree (48 percent).) Most of them are self-employed/independent businesses (76 percent) and the monthly income of most of the samples earns more than 20,000 baht (50 percent) in the satisfaction assessment form of woven fabric products of the Thai Phuan people in the overall average all 4 aspects. The type with the highest satisfaction score was type 4 (4.44 – most) and the lowest type was type 3 (4.02 – more).

The suggestion for further research is to study the development of products that have multiple uses in one piece, such as a bag and it can also be a doll or display item in the same piece by folding or turning the fabric, etc., to create novelty for the community's products. The study also suggests increasing distribution channels to increase a variety of consumer groups at all

levels of society and the study of the application of new fabric patterns from traditional patterns including giving the color according to the fashion of that era for a variety of raw materials that will be processed into new products.

**Keywords:** Thai Puan weaving cloth; creating added value; original product; Nakhon Nayok

## Introduction

Thai Puan used to weave cloth for their use in the past and the pattern had been developed to modernize and become a symbol of Nakhon Nayok Province. Making it a selling point in being a conservation tourist attraction of Thailand, weaving the wisdom of the Thai Puan people, Pak Phli district, Nakhon Nayok Province. There was a problem with the broadcaster group. There was few in number and still a group of the elderly. Also, there is a lack of continuity in the inheritance of weaving wisdom (Poonyaprapha et al., 2018), causing the inheritance to be interrupted for a while. Due to changing social conditions, rare raw materials and modern clothes are cheap. As a result, the popularity of weaving decreased until the villagers stopped weaving for household use. But later, some people revived the weaving wisdom of Thai Puan men with cloth patterns such as the Naga Noi pattern, the Kho pattern, the Tum Tan pattern, and the Pho Sri pattern (Angkhapakornkul et al., n.d.) and created a new pattern, "Supannika flower pattern" (Thai Phuan Weaving Fabric, Ban Mai, Nakhon Nayok Province, 2019), to be a unique identity of many current Nakhon Nayok provinces in Pak Phli district. Nakhon Nayok Province had built a community to be a tourist attraction and there are exhibitions and sales of various products, including textiles according to the identity of the Thai Puan people. Most of the products from textiles are clothes, and garments which still lack the design, development, and processing of textile products to have a variety the researcher, therefore, needs to study cultural ways. Conservation and development of textile products of the Thai Puan people were made possible by extending wisdom through the research process. Share knowledge of product creation by the way of the community according to government policy and the mission of the university in bringing research results with knowledge and transferring product processing technology to the community which is part of promoting the use of free time beneficial community coexistence commercial income generation create a strong and sustainable community.

Having studied in the area makes it possible to obtain information on the needs of group members in the development of woven fabrics that exist in the area to have a variety of products. The products are in demand in the market increase in width so that existing products expand the scope of trade and meet the needs of customers more and more Therefore, the development of privatization products in the group will encourage the weaving group to learn and access innovations to produce work that meets market demands. It is a turn of crisis into more opportunities.

# Objectives of the research project

- 1. To increase the processing value of prototype products.
- 2. To transfer technology to the Thai Puan weaving group.
- 3. To disseminate the master product processing manual.
- 4. To create an economy for the community to further commercialize.

# **Definitions of Specific Terms**

- Thai Puan woven cloth means cloth woven by the hands of the Thai Puan people in Pak Phli District, Nakhon Nayok Province.
  - Creating added value means using resources efficiently and creating maximum value
  - Original product means a form of product used for testing before actual production.
  - Nakhon Nayok means the province in Thai Land

## Population and Sampling

The population used in this study is the Thai Puan group, Pak Phli District, Nakhon Nayok Province, and 50 people.

## Area Study, The Ethnicity and Their weaving

Pak Phli district, Nakhon Nayok Province originally, this district was named Bung Rai District, established in 1893. Later in the year 1905, the name was changed to Nong Pho District Ban Nong Pho and Ban Nong Nam Yai were combined to name the government place. But took only the word "Nong Pho" and in the same year moved the district office to Ban Tha Daeng, Tambon Pak Phli, and changed the new name to Khao Yai district because the area covered Khao Yai later in the year 1909 Changed its name to Pak Phli district according to the name of the district where it was located (Nakhonnayok Province, 2008).

Tai Phuan or Lao Phuan was a Tai ethnic group using the Phuan language, which is a Kra-Tai language family living in many provinces of Thailand Formerly living in Laos (Wikipedia, the free encyclopedia, 2022), Lao Puan or Tai Puan society is bound to the occupation of agriculture, farming, gardening, farming. Baskets, drains, baskets, shells, bucket hats, cobs, sieves, strainers, water buckets, buckets, baskets, or fans. There is also fishing equipment such as hooks, coops, sai, chanting, drums, eju, ammunition, etc. (Princess Maha Chakri Sirindhorn Anthropology Centre, 2022).

The weaving of Thai Puan people, Ban Mai Nakhon Nayok Province. There is a lack of inheritance of weaving wisdom for some time. Due to social conditions that have changed from the original, the raw materials are harder to find and modern clothing is easier and cheaper to buy and takes less time to produce compared to weaving. Later weaving was revived in 2002 with the establishment of Thai Phuan Ban Mai Weaving Group to preserve traditional weaving patterns of Thai Puan Maekru Sanit Khumngern from Lopburi was the trainer for the first period (Thai Phuan Weaving Fabric, Ban Mai, Nakhon Nayok Province, 2019).

Value creation (IPST, 2020) will focus on 2 approaches to development namely:

- 1) Development of existing products or creation of new products of value creation that focuses on the product itself, both as the original product or create new products based on product research and development.
- 2) Market expansion or finding new target groups as the creation of value for a product or service by focusing on a specific target market or consumer group. There is forecasting and risk management in advance.

## Literature Review

Wong-Aree et al. (2015) Study on Tai Phuan Native Fabrics: Patterns and Lines of Ban Chiang Civilization from past to present the results showed that the concept of Thai Phuan traditional fabric pattern design derived from the pattern on the jar attached to the ancient excavated objects by combining with folk patterns.

Boonsom (2017) studied the comparative study of symbols on cloth patterns between Lao Phuan and Chiang Kwang, Lao People's Democratic Republic and Thai Phuan Ban Mi Lopburi Province, and Thai Phuan Hat Siao Sukhothai Province, Thailand. They are the same people as the Lao Puan Chiang Kwang who were the origin of the Mo Hom shirt. Mudmee and Teen Jok fabric

patterns the symbols on the woven cloth patterns of the 3 Puan people showed the identities of the people. It reflects the social and cultural dimensions that have the power of life.

Roonreangjai (2017) studied the study of the method of creating patterns for the Teen Jok fabric of the Thai Phuan people applied with the dobby frying technique in Hat Siew Subdistrict Si Satchanalai District Sukhothai Province the results of the study revealed that there was a need to develop fabric patterns was distinctive and had different colors. Due to the lack of development of Teen Jok fabric patterns to be suitable for processing into various forms of products. And the original pattern of Teen Jok fabric is exquisite with the continuous process of Jok. When it is processed into products, it can be processed in a limited form.

Poonyaprapha et al. (2018) studied the factors that cause problems in the wisdom and inheritance of Ban Mai Thai Puan weaving fabric. Nakhon Nayok Province It was found that the main factors that caused the problem of inheriting the wisdom of Thai Puan weaving fabrics, Ban Mai, were 4 aspects: 1) The problem of the conveyer group; There are few people and they are still the elderly group. 2) Art and cultural problems. Lack of continuity in the inheritance of weaving wisdom. 3) Problems of inheritance channels. It was found that the main channel of inheritance at present was only the weaving group and the Thai Puan weaving handicraft group. 4) The problem of the successor group. Most of them were elderly people. While children and young people are not paying attention.

Panthong and Prasitphol (2021) studied the communication model for the cultural inheritance of Bann Mai Thai Phuan hand-woven fabric in Nakhon Nayok province.

## Method

This research was a combination of qualitative research and quantitative research.

#### Research Instrument

Research tools including

1. Satisfaction questionnaire for all 6 patterns of Thai Phuan weaving products consisting of 3 parts of evaluation data:

Part 1 Information on personal characteristics

Part 2 Satisfaction questionnaire for Thai Puan weaving product design

Part 3 Comments and Suggestions

2. Original product used in the evaluation

The products that have been published and are examples of processing from Thai Puan woven fabrics are designed so that the products can be used in real life. There is decorative sewing applied by adding various materials to make it more diverse and modern or contemporary, as shown in Figure 1.



# Research Design

The research steps are dedicated as follows:

- 1. Researchers visit the area to discuss the weaving group about group operations Explore group products to guide product development to increase market opportunities
  - 2. The researcher and the weaving group work together to design the product.
  - 3. Bring the acquired product prototypes to training.
- 4. Analyze the results to develop products that meet market demands to be a selling point to increase commercial value in the future.

# Data Analysis

The questionnaire is a rating scale, a 5-level rating scale, which is adapted from the Likert scale (Piroj, 2018), with criteria for giving. The rating is according to the opinion level as follows:

Opinion levels	Score levels
Satisfaction most	= 4.27 - 5.00
Satisfaction more	= 3.46 - 4.26
Satisfaction Moderate	= 2.62 - 3.45
Satisfaction low	= 1.81 - 2.61
Satisfaction very low	= 1.00 - 1.80

# Result

Table 1 Number and Percentage of Samples Classified by Individual Characteristics

Personal attributes	Amount (persons)	Percentage (100.0)					
Gender							
Male	1	2.00					
Female	49	98.00					
Age							
Not over 30 years old	1	2.00					
31-40 years old	13	26.00					
41-50 years old	24	48.00					
51–60 years old	12	24.00					
more than 60 years	0	0.00					
Education level							
undergraduate	0	0.00					
Bachelor's degree	12	24.00					
master's degree	14	28.00					
higher than a master's degree	24	48.00					
Occupation							
students	1	2.00					
Civil servants/state enterprises	11	22.00					
Self Employed/Freelance	38	76.00					
private company employees	0	0.00					
Monthly income							
Lower 10,000 baht	0	0.00					
10,001-15,000 baht	12	26.00					
15,001-20,000 baht	12	24.00					
More than 20,000 baht	25	50.00					

Based on Table 1, the results of the analysis of data on the personal characteristics of the sample found that

In terms of sex, most of the samples were female, numbering 49 people (equivalent to 98.00%) and only 1 male (equivalent to 2.00 percent).

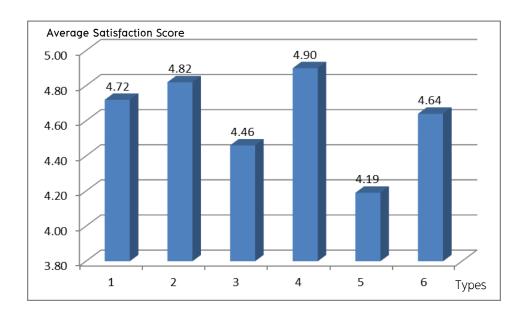
In terms of age, the age of majority of the sample In the age range of 41–50 years, 24 people (48.00 percent), followed by 31–40 years of age, 13 people (26.00 percent), 51–60 years old, 12 people (representing 24.00 percent) and under the age of 30 years, there is at least 1 person (representing 2.00 percent).

Level of education: The educational level of most of the samples was higher than the master's degrees, with 24 people (equivalent to 48.00 percent), followed by 14 people with master's degrees (equivalent to 28.00 percent) and the least number of bachelor's degrees. 12 people (equivalent to 24.00 percent), while those with bachelor's degrees were not found in the sample.

Occupational aspects of the sample group: Most of them are self-employed/independent 38 people (representing 76.00 percent), followed by 11 civil servants/state enterprises (22.00 percent) and students/students are the least number 1 People (representing 2.00%)

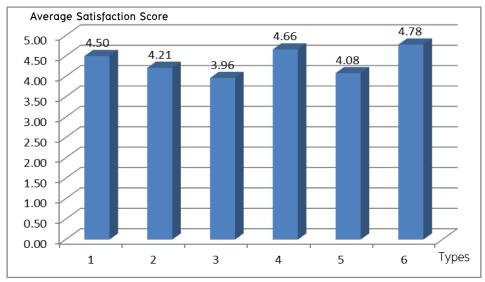
Monthly income: Most of the sample's monthly income had income of more than 20,000 baht, consisting of 25 people (representing 50.00 percent), followed by an income in the range. 10,001–15,000 baht, 13 people (equivalent to 26.00 percent), and the income range 15,001–20,000 baht, with the smallest number being 12 people (equivalent to 24.00%)

The result of the evaluation of the satisfaction of Thai Phuan people's woven fabric product design terms of product design found that the average was at the highest level of 5 patterns, with type 4 having the highest average satisfaction score (4.90). Followed by type 2 (4.82), type 1 (4.72), type 6 (4.64), and type 3 (4.46). Only type 5 had a high mean (4.19) as shown in figure 2.



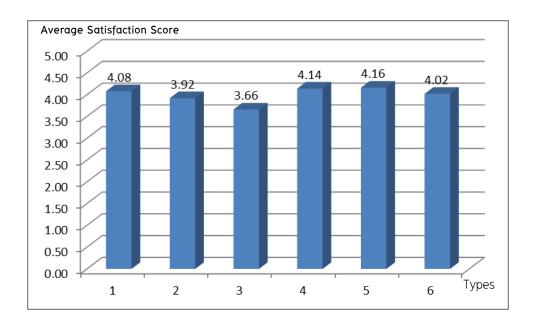
**Figure 2** The result of the evaluation of satisfaction scores on the product design of woven fabrics of Thai Puan people in terms of the product design on average.

The results of the evaluation of the satisfaction of Thai Puan people's woven fabric products in terms of aesthetics were found to have the highest average of 3 patterns, with type 6 having the highest average satisfaction score (4.78), followed by descending type 4 (4.66) and type 1 (4.50), respectively, and there are 3 types of mean at the high level as well, type 5 (4.08) and type 1 and type 3 have equal scores together (3.96), as shown in Figure 3.



**Figure 3** The evaluation result of satisfaction with the product design of woven fabrics of Thai Puan people in terms of beauty on average.

The results of the evaluation of the satisfaction of Thai Puan people's woven fabric products in terms of their use and usability were found to be at a high average level for all designs, with type 5 (4.16) having an average satisfaction score. Followed by Type 4 (4.14), Type 1 (4.08), Type 6 (4.02), Type 2 (3.92), and Type 3 (3.66), respectively, as shown in Figure 4.



**Figure 4** The evaluation results of the satisfactory scores on the products made from woven fabrics of the Thai Puan people in terms of their use and usability on average.

The results of the evaluation of the satisfaction of Thai Puan people's woven fabric products in terms of distribution were found to be at a high average level for all designs, with type 4 (4.04) having the highest average satisfaction score, followed by Type 6 (4.03), Type 3 (3.99), Type 5 (3.98), Type 2 (3.96) and Type 1 (3.746), respectively, as shown in Figure 5.



**Figure 5** The results of the evaluation of satisfaction with the product pattern of woven fabrics of Thai Puan people in terms of average distribution.

Table 2 The overall satisfaction of Thai Puan weaving products

Туре	Doe do et forme	Beauty	Implementation	Distribution	Average	Interpretation
	Product form		and usability			
1	4.72	4.50	4.08	3.74	4.26	more
2	4.82	4.21	3.92	3.96	4.23	more
3	4.46	3.96	3.66	3.99	4.02	More
4	4.90	4.66	4.14	4.04	4.44	most
5	4.19	4.08	4.16	3.98	4.10	more
6	4.64	4.78	4.02	4.03	4.37	most

From Table 2, the overall satisfaction of the Thai Phuan people's woven fabric products was averaged in all 4 aspects. The model with the highest satisfaction score was type 4 (4.44 – the highest), followed by type. Type 6 (4.37 – the most), type 1 (4.26 – a lot), type 2 (4.23 – a lot), type 5 (4.10 – a lot), and type 3 (4.02 – a lot), respectively, as shown in Figure 6.

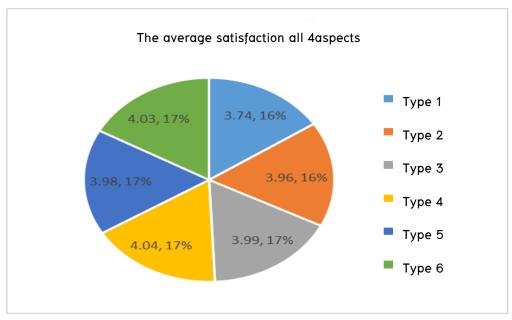


Figure 6 The average score of satisfaction towards the design of woven fabrics of the Thai Puan people in all 4 aspects.

## Conclusion

This study examines the creation of value-added products of traditional woven fabrics of the Thai Puan people in Pak Phli District, Nakhon Nayok Province for commercialization. From the population used in the study, a total of 50 people can be summarized as follows.

- 1. Most of the respondents were female, 98.00 percent aged between 41–50 years, 48.00 percent, most of the sample's education level was higher than a master's degree, 48.00 percent, and most of them were professionals. Self-employed/independent business 76.00 percent and the monthly income of most of the sample has an income of more than 20,000 baht 50.00 percent.
- 2. The satisfaction assessment form of Thai Puan weaving products evaluation is divided into 4 aspects: product form beauty Implementation and usability Distribution the results can be summarized as follows.

Product forms. The results of the assessment of satisfaction with the product form of woven fabrics of the Thai Phuan people in terms of product form Overall, the average was at the highest level, 4.62 when considering each item individually. The aspect with the most contemporary product form is type 4 (4.98 – the most), the size is most suitable for use, type 2 (4.96 – the most), and the shape is most beautiful shape is the 3rd and the 4th the same (4.98 – the most)

Beauty forms. The results of satisfaction toward the product design of Thai Phuan weaving in beauty overall, the highest mean was 4.32 when considering each item. The highest color aspect is type 6 (4.96 – the most), the most pattern is the same in 2 types, type 6 and type 4 (4.72 –most), the highest decorative aspect is type 6 (4.72 – most), and in terms of texture/surface texture, the highest is Type 4 (4.72 – most).

Implementation and usability results of satisfaction toward the product design from Thai Phuan woven fabrics in terms of use and utility overall, there was a moderate average of 3.40 when considering each item individually. The highest use on normal occasions is type 1 (4.72 -most) and the highest use on special occasions is type 5 (4.18 -most).

Distribution Evaluation results of satisfaction with the product design of woven fabrics of Thai Phuan people in terms of distribution overall, there was a high average of 3.96 when considering each item. The appropriateness of the highest price is type 4 (4.04 – more) and the suitability of the distribution location. The highest is equal to 2 types, type 4 and type 6 (4.04 – more).

# Suggestion

Based on this research, the researcher has learned and has suggestions for further use of the research results. Based on the study of creating value-added products of traditional woven fabrics of the Thai Puan people in Pak Phli District, Nakhon Nayok province for commercialization, the researcher, therefore, made recommendations as the following:

- 1. Implementation and usability of new product design to meet the customers 'needs of applications and usability should be comprehensive and diverse you may assess to summarize the need for specific benefits to getting the products that meet the needs of consumers the most.
- 2. Distribution may increase distribution channels and promote a variety of products to increase customer groups and distribution opportunities.

# Suggestions for further research

- 1. To study the development of products that have various uses in one piece, such as a bag, and can also be a doll or display item in the same piece by folding or turning the fabric, etc., to create novelty for the community's products.
- 2. Study on increasing distribution channels to increase a variety of consumer groups at all levels of society.

3. The study of the application of new fabric patterns from traditional patterns including giving the color according to the fashion of that era for a variety of raw materials that will be processed into new products.

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