

The Study of Product Development from Sarong (Sinh) Fabric of San Kamphaeng, San Kamphaeng district, Chiang Mai Province

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(Received: 19 January 2023, Revised: 28 April 2023, Accepted: 18 May 2023)

<https://doi.org/10.57260/remrj.2023.263141>

Abstract

Study and development of products from sarong (sinh) fabric of San Kamphaeng, San Kamphaeng Subdistrict, San Kamphaeng District, Chiang Mai Province has objectives: 1) to study the needs of entrepreneurs and target groups of Sarong (sinh) fabric of San Kamphaeng, 2) to develop product designs from sarong (sinh) fabric of San Kamphaeng, in conducting the research, the San Kamphaeng sarong fabric was used and applied to be bag products in various 3 types: handbag, shoulder bag and backpack by surveying the shape from experts' opinions and Thai consumer group, tourists in the target area. The tools used in the research were Physical test result record form, Mechanical test result record form and evaluated products by experts and the consumer acceptance questionnaire data that were analysed from the assessment forms and questionnaires with descriptive statistics, including percentage, mean, and Standard Deviation.

The materials used to form the product structure were leather, steel, and bag making equipment to make the products were strong and more complete. When the products made from San Kamphaeng sarong were given to all 6 experts, they were evaluated that the developed San Kamphaeng sarong products with an overall average of 4.35 at a very satisfied level. Results from consumer group acceptance test evaluation, it was found that consumers accepted San Kamphaeng sarong fabric products which were the most accepted. In this regard, handbag products and shoulder bag products, the consumers accepted the same, with an overall average of 4.67 and backpack products with an overall average of 4.63.

Keywords: Sarong (sinh), Product development, Consumer acceptance

Introduction

In the north, there are beautiful sinh tor lai (woven sarong) manufacturing sites. There are many provinces and districts in this area. The sarong or sinh from San Kamphaeng District is a unique. In the past, around 100 years ago, most of the villagers in San Kamphaeng District, Chiang Mai Province, had handicraft career. Men did wicker works. For women, weaving at home, such as sarongs, bags, ready-made bags, scarves, towels, shawls, etc. When the goods were produced, they headed to the Burmese border to sell or exchange their goods there. Once HM Queen Sirikit visited San Kamphaeng district, she was interested in silk gowns and ordered Miss Thailand who was going to join the Miss Universe pageant that year, wearing silk gowns from San Kamphaeng in a ready-to-wear sarong for the contest. At that time, Miss Thailand was Miss Apasara Hongsakul, and in that year, Miss Apasara was also given the title of Miss Universe. As a result, silk gowns became famous in the world at that time. It was considered a very prosperous era of silk gowns from Sam Kamphaeng (Information from Chalermraja San Kamphaeng Silk Waving Cultural Centre).

From the area in San Kamphaeng district to explore the problem of silk sarong in San Kamphaeng district, it was found that since the Transportation Authority of Thailand started to develop various railway and concrete roads. The clothing style was changed from wearing sarongs to pants. When globalization changed, most of the villagers changed their careers to other things, leaving few villagers to weave. During that time, the sarongs from San Kamphaeng were exhausted over a period of more than twenty-three years. Until the present era, some people were still interested and loved in the sarong (sinh) wearing them to temples. When the elders saw it, they asked where they got the sarongs from. Later, other people in Sam Kamphaeng, who still had sarongs at home, picked it up, and it was the beginning of the restoration of the San Kamphaeng's sarongs. Villagers who could weave began to produce new San Kamphaeng's sarongs in modern times. And because cotton is now an easy-to-buy material and is more popular than silk in modern times, it is mainly made with cotton and most of them will change to other occupations (Buyson, 2560). Few still make sarongs, which have been incorporated. They created a group to operate various activities, including the Chalermmrach Cultural Center, the San Kamphaeng Silk Museum. To find ways to build strong groups together and develop themselves, such as taking training courses offered by government agencies, which are university students, school students or individuals to study or visit the wisdom of San Kamphaeng district.

The study of the research project on the revival of the art of weaving San Kamphaeng Silk to inherit the culture through local media and strengthen the community of San Kamphaeng subdistrict, San Kamphaeng district, Chiang Mai Province. From the study, it was found that San Kamphaeng sarong fabric was not used to make various products, only to study to inherit the culture with local media with local media and strengthen the community only. There is no product design and development. Therefore, the researcher has come up with the idea of developing the products from San Kamphaeng's sarong fabric into a new alternative and maintaining the unique nature of the sarong (sinh) of San Kamphaeng. It can generate additional income according to creative economic practices in the community. In addition, it will be beneficial. Further development and extension of the local wisdom of San Kamphaeng District.

Research Objectives

1. To study the needs of entrepreneurs and target groups of sarong or sinh fabric of San Kamphaeng.
2. To develop product style from the sarong or sinh fabric of San Kamphaeng.

Methodology

Population and Sample Group

1. Population: The researcher determined by selecting a specific (purposive selection) that has the qualifications specified by the researcher and was interested in studying. In order to obtain a sample group to collect data as desired, able to collect data and made use of a sample of 6 people, consisting of product and San Kamphaeng sarong fabric experts, Chairman of Chalermraja San Kamphaeng Silk Waving Cultural Centre, Chairman of community enterprise Ban Ton Jok (Kham Sao) Vocational Promotion Group, San Kamphaeng district, San Kamphaeng sarong weavers and a group of products from San Kamphaeng sarong fabric.

2. Sample Group: The researcher used random sampling of Accidental Selection of the target group of 100 people, namely community enterprise members, Ban Ton Jok (Kham Sao) Occupational Promotion Group, San Kamphaeng district, San Kamphaeng sarong weavers, a group of products from San Kamphaeng sarong fabric, and tourists around San Kamphaeng area.

How to conduct research

The researchers have 3 steps to design and develop the product as follows:

Step 1 Basic information study is intended to study related information. The details are as follows:

1.1 General information on products, original product designs, and development needs of sarong or sinh fabric of Kamphaeng product by studying data from Baan Ton Jok Community Enterprise Group (Kham Saw), San Kamphaeng Sub-district, San Kamphaeng District, Chiang Mai Province.

1.2 General information on making products from sarong fabric of San Kamphaeng, identity, meaning of fabric product design, materials, equipment, and educational procedures from documents, books, and websites.

1.3 Product design concepts and processes by studying data from related documents and research.

Step 2 Analysis of data for design and development. After studying basic data, the researchers analyzed the data by setting the concept and scope of development of the San Kamphaeng products to be modern, beautiful, and unique. The researchers created a design for 6 members of the group to prototype the San Kamphaeng products.

Step 3 Testing the acceptance of the target group of consumers towards San Kamphaeng sarong fabric products by having 6 specialists in specific areas to evaluate the product development results and a member of the Community Enterprise, Ban Ton Jok (Kham Sao), San Kamphaeng weaver and a group of products from San Kamphaeng fabric and 100 tourists around San Kamphaeng accidentally assessed the beauty of product, product development and usability, to summarize the results of the product development of bag products from San Kamphaeng sarong fabric.

Research tools

The researcher collects data using research tools in the process of performing the following research objectives:

The study process of the San Kamphaeng's sarong fabric. The researchers created an interview to collect data from manufacturers on the original product model and the development requirements of the San Kamphaeng's sarong fabric using closed-end interviews to obtain clear information about the prototype.

The target audience's acceptance test process for the San Kamphaeng's sarong fabric. The researchers created a model to evaluate the satisfaction of the target consumers

with the San Kamphaeng's sarong fabric. The evaluation was conducted on beauty, product development, and usage. The average satisfaction level was divided into 5 levels (Puentia, 1993).

5	means	Satisfaction at the highest level
4	means	A high level of satisfaction
3	means	Moderate satisfaction
2	means	A low level of satisfaction
1	means	The lowest level of satisfaction

Collection of information

The researchers performed data collection in accordance with the following steps.

The process of studying San Kamphaeng's sarong fabric, the researchers collected data from documents, books, articles, research related to this study, and the researchers collected specific information using the method of interviewing 6 group members based on the researcher's choice.

The process of testing the acceptance of target consumers to the San Kamphaeng products. The researcher collected data randomly by distributing evaluation forms to a sample of 100 people from Community Enterprise members, Ban Ton Jok (Kham Sao) Occupation Promotion Group, Sam Kamphaeng district, San Kamphaeng weavers and a group of products from San Kamphaeng sarong fabric and tourists around San Kamphaeng area.

Data Analysis

The researchers analyzed the data from the study of documents, books, articles, and related research using content analysis, presented in descriptive form. The researchers then analyzed the data from the interview by presenting it in descriptive form and analyzing data from the assessment. The researchers used a score range as follow:

Average score range	≥	4.51 – 5.00	Equal to the most
Average score range	≥	3.51 – 4.50	Equal to a lot
Average score range	≥	2.51 – 3.50	Equal to moderate
Average score range	≥	1.51 – 2.50	Equal to less
Average score range	≥	0.00 – 1.50	Equal to the lowest

Results

1. Development of the sarong fabric of San Kamphaeng. According to interviews with group members, members wanted to have a geometric identity and a different product style, but still had the unique value of the sarong or sinh fabric of San Kamphaeng. The researchers created 3 prototypes: handbags, bags, and backpacks.



Figure 1 Original San Kamphaeng Products of the Community Enterprise Group, Ban Ton Jok Career Promotion Group (Kham Saw) (Source : Researcher, 2023)



Figure 2 Storage Enclosures and Demand Surveys
(Source : Researcher, 2023)

2. Data analysis Evaluation results of products from sarong fabric of San Kamphaeng by specialists analyzing data for design and development. After studying basic data, the researchers analyzed the data by setting the concept and scope of development of San Kamphaeng products to be modern, beautiful, and unique. The researchers drafted a design for a specific of 6 people to select. Please see the results in Table 1 including the results of the acceptance test of Community Enterprise members, Ban Ton Jok (Kham Sao) Occupation Promotion Group, Sam Kamphaeng district, San Kamphaeng weavers and a random sampling group of 100 tourists in San Kamphaeng area. The evaluation of beauty, product development and usability, see the results in the Table 2 as follows:

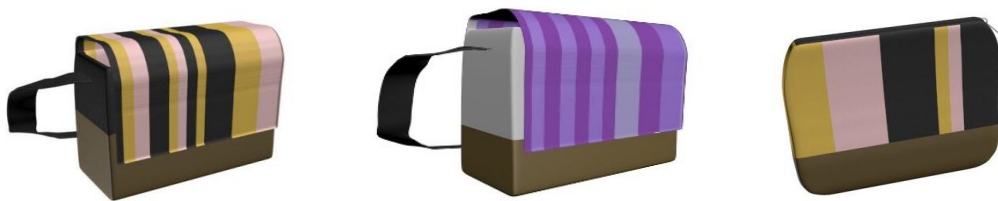


Figure 3 The three-dimensional image used in the design.
(Source : Researcher, 2023)



Figure 4 A prototype of handbags, shoulder bags, and backpacks
(Source : Researcher, 2023)

Table 1 Evaluation results of San Kamphaeng products by experts

Evaluation List	Handbag			Shoulder bags			Backpacks		
	\bar{x}	S.D.	Translate	\bar{x}	S.D.	Translate	\bar{x}	S.D.	Translate
1. It is appropriate to use the pattern of the sarong (sinh) fabric.	4.67	0.58	Most of all	3.67	0.58	A lot	4.33	0.58	A lot
2. Appropriateness of the use of sarong (sinh) fabric as a product.	4.67	0.58	Most of all	4.67	0.58	Most of all	4.66	0.58	Most of all
3. The material used to make the product is suitable.	4.67	0.58	Most of all	4.67	0.57	Most of all	4.66	0.58	Most of all
4. The product has a unique identity of the sarong (sinh) fabric.	5.00	0.58	Most of all	4.00	1.00	A lot	4.33	0.58	A lot
5. The colors used in the production are suitable.	4.33	0.58	A lot	3.33	0.58	Moderate	3.33	0.58	Moderate
6. The size of the product is appropriate.	4.00	0.00	A lot	3.67	0.58	A lot	3.67	0.58	A lot
7. Appropriateness of utility	4.67	0.58	Most of all	4.33	0.58	A lot	5.00	0.00	Most of all
8. Products can generate additional revenue based on the concept of creative economy.	4.67	0.58	Most of all	4.44	0.58	A lot	4.67	0.58	Most of all
9. Overall satisfaction of the sarong (sinh) fabric products	4.67	0.58	Most of all	4.00	1.00	A lot	4.67	0.58	Most of all
Sum	4.59	0.45	Most of all	4.09	1.67	A lot	4.37	0.52	A lot

Evaluation results of the woven sarong products of San Kamphaeng from experts found that San Kamphaeng sarong products that have been developed with an overall average of 4.35, in a very satisfied level handbag products had the highest average score, with an average score of 4.59, in the most satisfied level, followed by backpack products, with an average score of 4.37, in a very satisfied level. The shoulder bag products had an average score of 4.09, in the very satisfied level, respectively. In addition, experts have further suggested that product development ideas can be further commercialized. The products are more diverse and should study fashion trends to keep the products up-to-date.

Table 2 Analysis of data from the acceptance test of the target audience, evaluating aesthetics, product development, and usability (N=100)

Evaluation List	\bar{x}	S.D.	Translate
The aesthetic aspect			
1. The use of a sarong fabric pattern is suitable for the product.	4.78	0.46	Most of all
2. The color used in the development of the product is appropriate.	4.69	0.56	Most of all
3. The form of the product is appropriate.	4.68	0.53	Most of all
4. The product model is novel.	4.65	0.56	Most of all
5. The materials used for the decoration are suitable.	4.69	0.51	Most of all
Sum	4.70	0.52	Most of all
Product development			
1. Materials used to make handbags suitable for the product	4.70	0.46	Most of all
2. The size of the handbag product is appropriate.	4.65	0.52	Most of all
3. The product is modern and innovative.	4.62	0.55	Most of all
4. Products can create added value according to the concept of creative economy.	4.55	0.56	Most of all
5. Products can be produced at the community level.	4.65	0.52	Most of all
6. The product is an extension of local wisdom to commercial advantage.	4.66	0.50	Most of all
7. Techniques applied to making handbags refer to maintaining local intelligence.	4.65	0.50	Most of all
8. The materials used to make handbags also convey the local identity.	4.55	0.54	Most of all
9. The product is a good use of local materials.	4.62	0.51	Most of all
Sum	4.63	0.52	Most of all
Application side			
1. Appropriateness of utility	4.46	0.64	Most of all
2. The product is convenient to use.	4.69	0.60	Most of all
3. The product is safe and strong and durable to use.	4.73	0.50	Most of all
4. The form of the product is suitable for use.	4.67	0.53	Most of all
5. Easy to maintain products	4.61	0.62	Most of all
Sum	4.67	0.58	Most of all

Data analysis from the target group's acceptance test. The overall evaluation is based on the highest average score in all aspects. The evaluation of acceptance is based on the acceptance score on the topic of the most appropriate for the product development of fabric products. The researchers designed the product to be practical at the community level with the materials used to make it. It is easy to find in local areas to enhance commercial value for products that can be added to the economic concept. As researchers have developed products that are both practical and beautiful, the results of consumer acceptance tests have been the highest.

**Figure 5** Image of the acceptance test evaluation process of the target consumer group (Source : Researcher, 2023)

Discussions

Development of the sarong fabric of San Kamphaeng according to interviews with group members, members wanted to have a geometric identity and a different product style, but still had the unique value of the sarong or sinh fabric of San Kamphaeng. The researchers created 3 prototypes: handbags, bags, and backpacks. Development of San Kamphaeng products to be modern, beautiful, and unique. The acceptance test of Community Enterprise members, Ban Ton Jok (Kham Sao) Occupation Promotion Group, Sam Kamphaeng district, San Kamphaeng weavers and sampling group. According to evaluation of all 6 specialists, the overall average of the product was 4.35 with the highest score of 4.59 with the highest score, the handbags had the highest average score. The next one is backpacks which had average score of 4.37 was very satisfactory, meanwhile the average score of shoulder bags was 4.09 was very satisfactory, respectively. In addition, specialists suggested that the concept of product development can hit commercial sales. The products were more diverse and should be studied in fashion to keep them up-to-date. This study helps to promote careers for the community. Consistent with the research of Inpakdee et al. (2022) development of wicker products from gros michel banana fibers with natural dyes for promote career among the elderly. The acceptance testing results of the target consumers were at the highest level. This is because the products were based on the local wisdom and environmentally friendly as a green product. Therefore, they should be promoted to create more jobs among the elderly as well as interested community members in order to establish community and socio-economic empowerment. Besides, The presentation of the guideline for developing marketing strategies of elderly group's local products suggests that local knowledge should be used to develop and create uniqueness to the products, marketing communication should be improved to make the product well known on online social media, and cooperative networks in product distribution and distribution channels should be established in order to promote the income of elderly from local products and to build a foundation for stronger economic immunity (Sukasukont, 2022).

Based on the evaluation of the acceptance test of the target group on the San Kamphaeng products, the overall acceptance rate of the San Kamphaeng products was the highest. The average acceptance rate was 4.67 and the total acceptance rate for the backpack. Overall average of 4.63. Consumer acceptance results on each side of the product are as follows: 1) Handbag products have an average score of 4.70; product development has an overall average score of 4.63; and usage has a total score of 4.67. 2) Shoulder bag products had an average score of 4.67; product development had an overall average score of 4.65; and usage had a total score of 4.69. 3) Backpack products had an average score of 4.66; product development had an overall average score of 4.56; and usage had a total score of 4.67.

In addition, consumers advised to use local materials to make good money for the community. However, fashion trends should be developed to provide consumers with more choices. Emphasis is placed on the participation of the community in joint development of local identity designs. which corresponds to Kitipattanawit (2021) study of grain patterns of wicker basketry Mae Rim and Sankampaeng fabrics for application in developing bags of vetiver according to Sufficiency Economy Philosophy. This research focused on designing and developing several sizes of bag based on community's idea. Consistent with the research of many people who emphasize community participation in co-developing designs based on local identity. Such as Pengiam & Kanahawong (2018) study of local wisdom usage in the way of life at Ban Nong Bo, Ubon Ratchathani's identity silk production, the lukkeaw silk with ebony dye. Jaidee et al. (2021) The Product Development of Embroider Pattern Bag Ethnic Lahu, in Wawi Sub-District Mae Suai District Chiang Rai Province. Sombat & Mahavarakorn

(2022) analyzing and synthesizing a body of knowledge toward Mae Chaem Woven Textile as an intangible heritage for Thai language teaching design, as a foreign language for Chinese students, due to the active learning concept. The in-class knowledge is linked with the out-class experience, which is a method of active learning for students' participant motivation by self-experience and actual practice. Local wisdom, too, are applied in the learning process for increasing the students' knowledge and Thai language skill as well as taking part in Thai local wisdom preservation and continuation. Pinjurai et al. (2021). Design and development of woven fabrics with local wisdom according to identity Of Ban Sap Charoen community, Pang Makha subdistrict, Khanu Worakabsaburi district. Intarakerd et al. (2018) conservation and inheritance of phamai madmee cinteandang, ban huasaphan community, phuthaisong district, buriram province from generation to generation. Chinachan (2022) find the product and marketing development guidelines for Jok textile products by using the community's cultural identities. Moreover, the cultural data of the community was also used to develop a story-telling and the infographic in the process of marketing development for Long Li Jok textiles. Burapajatana (2016) to take Identity of Tin chok woven of Mae jam which is a Lan na handicraft of Chiangmai province of Thailand to apply into contemporary style for cultural textile products in home decoration. This is a way to promote and develop national products to public according to creative economy from national culture.

Conclusion and suggestions

Based on this study, the researchers studied from Chalermraja San Kamphaeng Silk Waving Cultural Centre and research results, research projects Revival of the art of San Kamphaeng silk weaving to inherit the culture through local media and strengthen the competitiveness of San Kamphaeng subdistrict communities, San Kamphaeng district, Chiang Mai province. The researcher obtained research results that met the 2 research objectives: 1) to study the needs of entrepreneurs and target group of San Kamphaeng sarong fabric, 2) to develop product designs from sarong (sinh) fabric of San Kamphaeng

Recommendations for Application of Research Results

1. The use of sarong (sinh) fabric of San Kamphaeng to develop various forms should be considered as a product that is desirable and popular among consumers.
2. The development of new products should be promoted continuously through training from government agencies, educational institutions, and private sectors to better match the needs of target customers, as well as to preserve the local wisdom and income of families.

New knowledge and the effects on society and communities

Local communities gain new knowledge about bag product design development and applying various patterns of sarongs from San Kamphaeng have been developed to be diverse and beautiful, unique and can generate income for the community from new products with increased value, create unity and strength in the local area.

Acknowledgments

This research was fully funded by Chiang Mai Rajabhat University (CMRU) Research Fund in 2019

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