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# Development of Local Cultural Woven Textile Product to Contemporary Fashion Product

Jaipak Burapajatana<sup>1</sup>, Walton Wider<sup>2</sup>, Hongyu Zhang<sup>3</sup>

<sup>1</sup>Shinawatra University, Faculty of Liberal Arts, jaipak.b@siu.ac.th

<sup>2</sup>INTI International University, Faculty of Business Communication,

walton.wider@newinti.edu.my

<sup>3</sup>Pioneer College Inner Mongolia University, hongyuzhangmedu2@163.com

## Abstract

This research has purpose to take local woven or "Pahkahmah" which is a cultural product of the local woven of Nong Kao district in Kanchanaburi province of Thailand to develop for and applying with contemporary fashion design in order to increase its value. The process of creation in this research has 5 steps as 1. Create concept and inspiration 2. Design collections for the improved textiles 3. Create decoration technique for the improved textile and collections 4. Create the prototype collections and products 5. Evaluate satisfactory for the prototype collection and products. The improved textiles were used in making 3 collections of fashion apparels and costume accessories in street fashion for present lifestyle. Knowledge to improved and develop local Pahkahmah woven textile and the idea from prototype collections and products from this research was relayed to makers of Pahkahmah woven textile in Nong Kao district, Kanchanaburi province. Evaluation for satisfactory to the creative idea and developed textile products by representatives of Pahkahmah woven textile maker community and consumers revealed average score 4.45 with standard deviation 0.27. Knowledge from this research become a guideline for sustainable development and innovative idea for increasing commercial value to the local Pahkahma woven products of Nong Kao district community.

**Keywords:** Developing local woven, Cultural textile Products, Contemporary fashion apparels, Techniques for decorating woven textile.

#### 1. Introduction

Cultural textile products

Cultural textile products are originated from concept, style, technique, method and material which based on culture, tradition and local wisdoms. Nowadays, cultural textile product is a part of cultural industry and creative economics that has concept to add value to cultural products and services.

Cultural industry refers to production of products and services from tangible and intangible culture which has potential in creating prosperity and benefits from its usage in original way and contemporary way. (Office of Contemporary Arts and Culture, 2009)

Cultural textile product could be categorized into 2 types as follows

- 1. Original products are the products which are made according to local popularity with technique of production, style, pattern, colours and materials same as that made in the past. The examples of such products are woven textiles of communities and remarkable products of the community.
- 2. Contemporary products are the products which has been made from taking original product to apply with contemporary concepts, styles, colours, materials and modern production technique.

#### 2. LITERATURE REVIEW

**Cultural Fashion Apparels** 

Cultural fashion is the fashion which caused from taking uniqueness in beauty from a cultural matter such as concept, style, technique, patterns, colours and material for guideline in the creation and designing. The cultural fashion designs then a method in taking benefit from cultural capital which widely promoted and supported by the government authorities of Thailand which becomes 1 in the country's soft powers for creative economic of the country.

"Pahkahmah" local handmade woven textile

Pahkahmah is a famous local handmade woven textile which has been used in the history until today. Pahkahmah woven textile is a product of local wisdoms which made and widely used in various regions of Thailand. Hundred Colours Pahkahmah which made in Nong Kao district, Ta Muang region of Kanchanaburi province is known by tourists for its colorful and unique pattern that still uses original method in production. Nong Kao district is the cultural community in Kanchanaburi province which still maintain the heritage in lifestyle and local wisdom of textile weaving. In the past, people in Nong Kao district grown cotton for making their clothes and dyed with colours from natural plants and the woven textile products of Nong Kao district thereafter became popular for tourists. Arrival of low-cost artificial threads and silk caused weavers and makers in Nong Kao district developed patterns and colours to their local Pahkahmah woven textile. Hundred Colours Pahkahmah handmade woven textile of Nong Kao district became well-known products of the community. Weaving technique in making Pahkahmah, thereafter, developed to using weft shuttle in order to decrease the time of weaving.



Figure 1: Weaving Pahkahmah in Nong Kao community and samples of products made from Pahkahmah.

Origin:Handmade products from Pahkahmah in Areerat shop in Nong Kao district, Amphor Tamuang, Kanchanaburi province.

The famous and unique pattern of Pahkahmah woven textile of Nong Kao district is "Tajak" pattern which has been developed from patterns in basketry. Local Pahkahmah woven textile of Nong Kao is made in several colours which became the name of "Hundred Colours Pahkahmah". Apart from Tajak pattern, today, Pahkahmah of Nong Kao district are also made in other patterns as Plaid, Twin-Eye and Small-Eye. They are used for making other products as clothes, bag, cap etc.



Figure 2: Tajak pattern, Twin-Eye pattern and Plaid pattern which are unique and specific patterns in Pahkahmah woven textile of Nong Kao district.

Origin: Adisak Foytaptim, Nong Kao district, Kanchanaburi province.

At the time of the research, most products from local Pahkahmah woven textile in Nong Kao district were made for specific group of consumers such as government authorities in Kanchanaburi province. Those products were made from cheap synthetic yarn which caused them have rough touch and not comfort. The products were made in old styles and not popular amongst tourists. The local Pahkahmah makers then wanted to develop their products into contemporary styles in order to attract consumers and tourists. (According to interviewing with Mr. Adisak Foytaptim the Head of Weaving Textile Makers Community of Nong Kao district.)

The aforesaid problems lead to the research in taking local wisdoms of Hundred Colours Pahkahmah Woven Textiles makers to improve and develop. This journal is the conclusion from the research in creativity ideas in technique and decoration in combining culture with innovation as well as to increase value and pave the way for sustainably developing local woven textiles.

# 3. Research Methodology

Developed products by this research

Developed local Pahkahmah woven textiles that further used for making contemporary fashion apparels products.

Purpose of the research

- 1. To redesign and decorate Pahkahmah woven textile for design contemporary fashion apparels products.
- 2. Evaluate satisfactory of makers of Pahkahmah woven textile maker and consumers in the improved/redesigned products.

Research conceptual framework

Improving and developing the products from Hundred Colours Pahkahmah Woven Textiles has purpose to improve and increasing value to the cultural products by combining craftworks with innovation in order to create contemporary fashion style products to suit for daily life.



# Concept & Inspiration

To take the patterns which adapted from original Hundred Colours Pahkahmah local woven textiles to redesign and develop with technique of decorations by craftmanship and innovation in order to increase commercial value of local cultural products and to develop the products to contemporary fashion style that suit for daily use.

# Concept of designing are:

- 1. Redesign the original products to contemporary style.
- 2. Create conceptual of redesigning and decoration.



## **Design Process**

- 1. Create concept and inspiration
- 2. Designing collections for the improved textiles
- 3. Create decoration technique for the improved textile and collections
- 4. Create the prototype collections and products
- 5. Evaluate satisfactory for the prototype collection and



# Prototype

- 1. Pahkahmah woven textile which has been developed and decorated.
- 2. 3 collections of street fashion style apparels and costume accessories

Table1: Research conceptual framework

## Scope of the research

- 1. Designing and developing woven local of the Pahkahmah woven textile for further develop into collections product consist of street fashion style apparels and costume accessories.
- 2. Evaluate satisfactory of 100 samples from representative from the maker community and consumers for the developed products.

Methods; Research and creative process consists of 5 steps as;

- 1. Create concept and inspiration source of designing, as well as to study relevant information in cultural product designs, woven products designs, street fashions style and take the obtained information to create the guideline for designing and decorations for improving the products which made from the local Pahkahmah woven textile, 3 collections.
- 2. Designing collections of apparels and costume accessories which made from the local Pahkahmah woven textile, 3 collections.
- 3. Create the technique to decorate the local Pahkahmah woven textile, 5 techniques.
- 4. Create the prototype collections and products from the developed local Pahkahmah woven textile, 3 collections.
- 5. Evaluate satisfactory in the developed products by means of Quantitative Evaluation, the research tool uses a questionnaire from 20 local makers of Pahkahmah woven in Nong Kao district, Kanchanaburi province and 80 consumers; target group of consumers for street style fashion in the research is Gen. Asia between 18 and 35 years old who interest cultural fashion products of B level.

#### 4. Research Results

1. Create concept and inspiration

Information and data from the research in cultural product designs, principle of textile designing, technique of decoration to woven textiles and street fashion style could be concluded as follows:



Figure 3: Pictures of source and concept in designing the collections of street fashion style.

## Concept & Inspiration

The research on Development of local cultural woven textile product to contemporary fashion product lead to the idea to create collections of street fashion apparels and costume accessories. Street fashion is a style of contemporary dressing of people in urban societies. The style of dressing is influenced by art, graffiti, sports and music etc. of the society. It is the remarkable style of dressing which could be seen on streets, and might appears in different styles.

Target group of consumers for street style fashion in the research is Gen. Asia between 18 and 35 years old who interest cultural fashion products of B level. (Mohsin Raza, 2020).

3 collections of fashion which resulted from taking original patterns in local Pahkahmah woven textiles to redesign and applied with craftwork decorations were made into following 3 styles as:

1.1 Street fashion apparels and costume accessories which inspired by "Tajak pattern" which developed from basketry works. The collection is made in earth tone colour.



Figure 4: Woven textiles with adapted "Tajak pattern" in earth tone colour.

1.2 Street fashion apparels and costume accessories which inspired by "Twin-Eyes pattern" and "Small-Eye pattern" (double and small strip) patterns. The collection is made in vivid colours tone.



Figure 5: Woven textiles with adapted "Twin-Eyes pattern" in vivid tone colour.

1.3 Street fashion apparels and costume accessories which inspired by "Plaid pattern". The collection is made in pastel colours tone.



Figure 6: Woven textiles with adapted "Plaid pattern" in pastel colours.

- 2. Designing collections for the improved textiles
- 3 sketch design for the collections were made. They consist of shirts, shorts, trousers, blouse, dresses, trench coats and costume accessories which are decorating, bags, caps, and scarfs.



Figure 7: Sketch design of costume collections to be created.



Figure 8: Sketch design of accessories collections to be created.

3. Create decoration technique for the improved textile and collections

Results of design and development of local woven fabric products. The collections were applied with following 5 decoration techniques as:

3.1 Patchworks technique: Different in property of different textiles such as thickness, textures colour and patterns were used in decoration. The collections were decorated by technique of patching works by plain colour cloths, either made by hand or by machinery, and by godet technique which is the technique of adding other cloths which have different property to the textile of the collections. (Margo Selby, 2011).







Figure 9: Patching works with lain colour piece of cloths were used in decoration of the designed collection.

3.2 Decorate with materials: Textile were decorated by adding materials on their surface in order to create form or texture on the surface. The materials which added to the collection are soft-threads, pieces of cloth which has special texture, beads, organic matters from plants or synthetic matters which has remarkable shapes. Those materials were affixed to the textile by sewing and stitching. (Dawn Thorne, 2009)



Figure 10: Decoration technique by means of adding materials.

3.3 Metallic colours printing: Metallic colour printing is a printing method which made by heat transfer flex system. The print works are made by inkjet printer on the flex paper and affixed to surface of the textile by manual heat press machine. This method of printworks gives sharp outcome on the textile. The print works which made by this method give metallic hologram looks with rainbow reflection and prominently appearance. The decoration by this method is suitable for the street fashion style. (Angel Fernandez, 2009)







Figure 11: The collection which decorated by heat transfer flex method.

3.4 Making the textile into forms: This method of decoration is by making the textile into forms by hand, tools, upholstery with other material or by pressing in order to create the desired forms. (Steven Faerm, 2010).



Figure 12: Costume accessories which made by technique of making textile into forms.

3.5 Creating dimensions and texture: There are several methods to create texture and dimensions on the textile are by pleating, tucking and embroidering. Texture and dimensions on textile of the collections was created by 2 methods as 1) stitching and taking out some parts of threads to bands of fringe threads on the textile 2) to create free-form wrinkles on the textile. (Martinez Alonso, Claudia, 2014)



Figure 13: 1) Technique in creating dimensions on the textile by making band of fringe threads.



Figure 14: 2) Technique in creating dimensions on the textile by making pleating and free-form wrinkle.

- 4. Create the prototype collections and products
- 4.1 Collection of fashion apparels and costume accessories from adapted "Tajak pattern" in earth tone colour; Casual-Party Wears (Steven Faerm, 2010).

Street fashion outfits: short-sleeved shirt, shorts, dress and trench coat.

Accessories product: Cap, bags: shopper, costume accessories, scarfs/shoulder cloths.

Materials: woven textiles with adapted "Tajak pattern", red velvet textile, white and red cotton textiles, rayon threads, fluffy yarns, cotton-bamboo treads and tassels.

Decoration technique: patchworks, pleating, pressing, metallic colour printing and decorating with other materials.



Figure 15: Collection of apparels and costume accessories from adapted "Tajak pattern" in earth tone colours

4.2 Collection of fashion apparels and costume accessories from adapted "Twin-Eyes pattern" in vivid tone colours; Business-Party Wears

Street fashion outfits: long sleeve shirt, trousers, short skirt and dress.

Accessories product: sun hats, handbags, costume accessories and scarfs.

Materials: Main materials are woven textile with adapted "Twin-Eyes pattern", blue velvet textile, white cotton. Decorating materials are fluffy threads, rayon threads, fluffy yarns, beads and accessories for the product.

Decoration technique: patchworks, metallic painting, pleating and decorating with other materials.





Figure 16: Collection of apparels and costume accessories from adapted "Twin-Eyes pattern" in vivid tone colours

4.3 Collections of fashion apparels and costume accessories from adapted "Plaid pattern" in pastel colours; Party Wears

Street fashion style apparels: Shirt, blouses, dresses and trench coat with hood.

Accessories product: Scarfs/shoulder cloths, costume accessories, bags and shoes.

Material: Main materials are woven textile with adapted "Plaid pattern", corrugated textile, open mesh textile. Decorating materials are rayon threads, cotton bamboo yarns, pieces of cloth and other materials.

Decoration technique: patchworks, pleating and decoration with other materials and tassels





Figure 17: Collection of apparels and costume accessories with adapted "plaid patterns" in pastel colours.

# 5. Evaluate satisfactory for the prototype collection and products

Knowledge in method of production and designing from the research was relayed to

makers of Pahkahmah woven textile in Nong Kao community, Kanchanaburi province for their guidance in developing and increasing commercial value of their products. Satisfaction in the developed products and knowledge derived from the research was evaluated and revealed as follows:

Table2: Result of evaluation for development of local woven textile and redesigned products.

Satisfaction le	vel from 100 s	amples of n	naker and co	nsumers in l	Nong Kao c	ommunity	U	•
Field of evaluation	Maximum	High	Middle	Small	Very few	$\overline{\mathbf{x}}$	S.D.	Interpretation of result
Usage	69	22	9	-	-	4.15	0.32	High
Beauty	74	26	-	-	-	4.80	0.24	Maximum
Maintain uniqueness of origin products	62	27	11	-	-	4.21	0.26	High
Materials	72	21	7	-	-	4.11	0.30	High
Colours and adapted patterns	81	19	-	-	-	4.21	0.36	Maximum
Designing	79	21	-	-	-	4.67	0.35	High
Quality of developed products	67	20	13	=	-	4.21	0.29	High
Style	83	17	-	-	-	4.78	0.20	Maximum
Decoration technique	87	13	-	-	-	4.74	0.21	Maximum
Idea of development	84	16	-	-	-	4.71	0.20	Maximum
Total						4.45	0.27	Maximum

The survey to satisfaction in the development of local woven textile and redesigned products from 20 makers and 80 consumers, 4 fields of evaluation obtained high score and 6 fields of evaluation obtained highest score. The average score from the survey was 4.45 with standard deviation was 0.27.





Figure 18: Activity in relaying knowledge and idea to develop Pahkahmah woven local textiles and products to makers in Nong Kao community, Kanchanaburi province.

# 5. Conclusion

Result of developing Pahkahmah woven textile to products

From the designing and developing woven local of the Pahkahmah woven textile revealed conclusion on process of development and designing of fashion apparel and costume accessories as follows:

Table3: Summary of analysis of woven textile developing

rables. Building of analysis of woven textue developing				
Subject:	Developing local woven textile "Collections of street fashion apparels			
	and costume accessories"			
Concept & Inspiration	Taking unique beauty which adapted from Hundred Colours Pahkahmah			
	which is local woven textile of Kanchanaburi province to redesign and			
	develop according to contemporary fashion in order to pave conceptual			
	ideas in increasing commercial value for local cultural product.			
Mood & Tone	"Enjoy with colorful woven textile in street fashion style".			
Collection fashion & product	3 collections of apparel and costume accessories in street fashion style.			
	Collection 1: Casual and party wears from adapted "Tajak patterns".			
	Collection 2: Business and party wears from adapted "Twin-Eyes			
	patterns".			
	Collection 3: Party wears from adapted "Plaid patterns".			
Position in market	Fashion wears and products in group B level.			

Target Group & Life Style	Generation-Asia young people of age between 18 and 35 years old who born during the time Asian countries has influence in the world's markets, have city lifestyle, pro-active mind, be leader in various trends, prefer freedom, tends to purchase product to reflect own characterize, prefer unique dressing in contemporary culture style.	
Style	Street fashion which is the style of dressing from preference of peoples in urban society.	
Trend, colour way	Collection 1: Using of earth tone colour, major colour is brown.  Collection 2: Using vivid colour group as blue, grey, red and bright orange to empower to the designs which suit for self-confidence women. Some part of the textile has matrix colour which reflect modern technology.  Collection 3: Using pastel colours which shows joyful and mild feeling. The plaid patterns emphasize power and strength of women in contrast to the pastel colours.	
Material & surface	Main material: woven textiles of 3 adapted patterns, decorating textiles, cotton textiles of white and red colours, velvet of red, blue and pink colours and mesh textile.  Decoration material: Rayon threads, synthetic silk threads, fluffy yarns, yarns that has special texture, bamboo-cotton yarns, tassels, pieces of woven textile and other materials.	
Technique	1. patchworks 2. decorate with materials 3. metallic colour printing 4. making the textile into form 5. creating dimension and texture	

#### Discussion

From the research of "Development of local cultural woven textile product to contemporary fashion product", the researcher took the findings from the research to create and developed local woven textiles. The main concepts in consistence to the findings from the research could be summarized as follows:

## 1. Designing of contemporary cultural products

Designing and developing woven textiles is a way in designing contemporary cultural products which consistence to the idea of Traditional Contemporary Design. According to the conclusion from research of Siwaree Arunyanart (2015), an importance guideline for designing in the present is to take original culture and local wisdoms to apply with the design. The said conclusion is in line with the concept of Designing and Innovation Promotion Institute of The Department of International Trade Promotion of Thailand that several countries took cultural heritage and local wisdom to create their products that support present lifestyle. The designer should then pay role in combining original culture with present. The concept of contemporary designs should be about the products for new usage that suit with the lifestyle (Siwaree Arunyanart, 2015: 59). Designing of contemporary cultural products of this research is from the conclusion of evaluation in maximum satisfactory of the makers in the community and consumers from developing and redesigning of products from local woven textiles.

# 2. Creativity and Innovation

The concept of design is the most importance part which pave way to the creation and development. To have the picture of design, several creative ideas have to be taken into consideration. The concept of creation in this research could be summarized as follows:

- 1. Further developing cultural heritage of local woven textiles by create them with new materials and technique, redesigning pattern from the original patterns. it is the combination of culture and creativity.
- 2. Applying of technology with the cultural heritage products for new result. Sample in this research is taking Heat Transfer Flex printing technique to create metallic colours on the woven textile to create new looks that differ from original woven textile. It is the result of combination between old thing and modern thing.
- 3. Designing with materials, technique of production suit for purpose of use and social contexts as well as to support preference of present fashion consumers.

Innovation: The introduction of new things, idea or ways of doing something. New idea, way of doing something, etc. that has been introduced or discovered (Joanna Turnbull, 2015).

Innovation is the creation which resulted from using knowledge and creativity that benefit social and economic. It included things which is created from using of ability, knowledge, creativity idea, skill, experience in technology, developing of products or processing or new service for the needs of market (National Innovation Office, 2019)

From concept of creativity and meaning of innovation, it could be concluded that creativity idea is the origin of innovation. Creativity is the process of thinking that lead to create innovation. The "Development of local cultural woven textile product to contemporary fashion product" is a result of creativity with purpose to combine culture and innovation. The result of research are contemporary cultural products that reserve original pattern, redesigning and decoration technique for fashion apparels. The outcome of the research is useful data for reserving local wisdom and heritage in Hundred Colour Pahkahmah which is the local woven textile product of Kanchanaburi province, as well as pave the way for increasing commercial value and sustainable development for local community products.

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