

***Graphic Design on Packaging for Development of Local Textile Products: A Case of Cloth Weaving Commodities in Mahasarakham Province, Thailand***

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The European Conference on Arts & Humanities 2016  
Official Conference Proceedings

**Abstract**

This research aimed to raise a product brand (Underwood, Klein, and Burke, 2001) for cloth weaving commodities in Mahasarakham province, using the case study of Baannongkaen, village 4<sup>th</sup>, Lao sub-district, Kosumpisai district in order to promote the sale and marketing strategy. We describe a process to create a popular packaging design for products of the commodities in the region. Fifteen packaging design models were created by students studying for a degree in Graphic Design in The Department of Creative Arts, Faculty of Architecture Urban Design and Creative Arts, Mahasarakham University. The research tool was a questionnaire containing rating scales for packaging design. The target sample was 200 people in the Mahasarakham province. The results of this research found that the most preferred package design was a flat, part-windowed packet, with light brown colours and patterns best reflecting the style and tradition of the product itself.

Keywords: Packaging, Design, Thailand, Textiles

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## 1. Introduction

This is a case study demonstrating the graphic design support provided by staff and students of The University Mahasarakham to develop a brand for unique textiles produced by Baannongkaen, Village 4<sup>th</sup>, Lao sub-district, and Kosumpisai district in the in the Mahasarakham province, Thailand. The aim was to provide graphic designs for packaging that reflect the cultural traditions of the fabric styles, colours and patterns. This is important to make consumers aware of a product and to represent it accurately.

The region of Baannongkaen, Mahasarakham province in Thailand has a number of home grown textile group consisting Cotton, Silk, Mudmee, Pakama. And most of it is processed into products such as bags, shawls, sarongs (Yukimatsu, K., Chantachon, S., Pothisane, S., Kobsiriphat, W. 2008) problem is the design of products to serve the market, which cannot expand as much as it should. Such folk and weaving like a processed product is a new product that is more attractive and to bring products to a wider market. Graphics designs and packaging is part of a major push in the region to enable its products to be recognized. The aim is to make these products distinctive and to establish ties and memories with consumers and created opportunities for products to build on the local knowledge of products from fabric weaving of Baannongkaen, Mahasarakham province, Thailand. The region wants to bring its woven cloth products to a wider market. Thereby promote the image of the region as well as preserve the folk wisdom that remains contemporary to the present day.

Representative graphic design is regarded as a fundamental factor in the development of an image unique to the region. The aim is to create opportunities for marketing of the local textile products and make them desirable for consumers. The design of packaging helps make the product unique and easily remembered. For the fabrics in question it was also important to provide a channel to generate revenue for the community and help make its products stand out against other similar products. As Underwood (2003) suggested, distinctive packaging helps to promote a product to existing markets, but if it is clearly identifiable and unique good packaging can help create new markets.

In this case study staff and students at the University of Mahasarakham undertook the task to create several designs intended to accurately reflect the product itself and follow. This was then followed by a survey of consumers who were asked to rate each design on several parameters. The aim was to find which designs were preferred and therefore would be the basis of a new brand image for textiles from the region.

The main objectives of this study was to create designs that project a positive image the woven cloth from the Baannongkaen region in order to promote the products. These designs were tested for preference by consumers in order to select the best candidates to take the brand forward.

We hypothesized that graphic designs for packaging will vary in terms of preference ratings by consumers and those that *are* preferred will be designs that create the most accurate image of the product.

## 2. Method

### 2.1 Survey Participants

The researchers collected data from a sample of 200 individuals in Mahasarakham Province, a total of 158 women and 42 men with an average age over 38 years (age range was 18-82 years). Participants were randomly selected for interview in a local shopping mall and asked to assess the pictorial and 3D package examples and complete the ratings scales for each.

### 2.2 Design Materials

All the designs were produced by students who were studying a final year module in Graphics Design for their Bachelors Degree in The Department of Creative Arts, Faculty of Architecture Urban Design and Creative Arts, Mahasarakham University. The process helped students understand how the theory of design and the various element of packaging are combined to produce an effective and attractive image of products. The use of logos and colours in the packaging design is important in representing a product unique to a community.

The fifteen packaging designs were created by fifteen third-year students studying for a degree in Graphic Design. The brief to students was as follows:

*Create a package design for the weaved fabrics of the Baannongkaen culture, Mahasarakham province. The designs should reflect the textile products of the textile group as well. Packaging must be designed to a size appropriate to the product. The colours used should not be too flashy for a race with the patterned fabric of an already outstanding product. The graphic on the packaging should be used to promote the unique pattern of weaving patterns, such as stripes kit or the Dakhmak a symbol necklace for the woven fabric of Mahasarakham.*

Students followed the conceptual framework for the study shown in Figure 1 below.

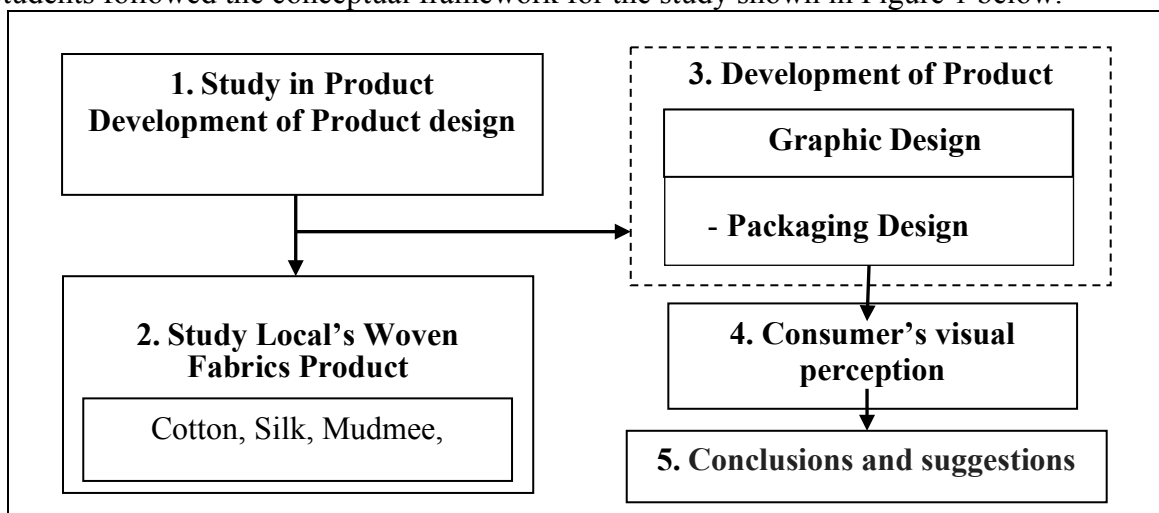


Figure 1. Conceptual Framework for the Study.

For the planning and development their designs students were asked to study the following factors and incorporate their findings in their designs:

1. The history of the founding of the weaving of Baannongkaen, village 4<sup>th</sup>, Lao sub-district, Kosumpisai district, Mahasarakham province; using a variety of methods to research the information including interviewing local experts.
2. The local unique woven fabric product: Cotton Silk Mudmee and Pakama
3. The factors important to packaging design including logo and colours reflective of weaved products in Baannongkaen,
4. Design a package that would be perceived as visually appealing using a style which addresses the following features:

**Colour:** the packaging colours are appropriate.

**Font:** the packaging fonts are appropriate.

**Packaging:** The packaging is suitable for textile products and therefore reflects the unique weaving. The Shape of packaging is appropriate for the product. Packaging design is appropriate for the product and the packaging are attractive overall.

5. Through an empirical survey of consumers assess the perceived satisfaction with the graphic designer to develop textile products of Baannongkaen. The questionnaire consists of packaging styles to create an alternative of Baannongkaen's cloth weaving. And acquisition case study includes logos 15 patterns and packaging 15 patterns to create a research tool. By interview to test the pictorial and 3D stimuli and questionnaires with the target group. The results were analyzed to determine the perception of the sample results to be used to design the logo and packaging for development of local textile products of Baannongkaen.

### ***2.3 Research tool***

The packaging design questionnaire asked participants to indicate their perceived satisfaction on aspects of the packaging designs. This was based on that used by Peters (1994) and generally assessed the following parameters:

**Colour:** colour is appropriate.

**Font:** fonts is appropriate.

**Packaging:** The packaging is suitable for local textile products.

Overall the survey was designed to assess whether the packaging reflects the unique weaving of the region, has a shape and packaging design that is appropriate for the product and is attractive.

Figure 2 show the example of questionnaire scale for each of the pattern.

Parameter	[Packaging's Picture here]				
	1 Not satisfie d	2	3	4	5 Extreme ly Satisfied
Colours are appropriate.					
Fonts are appropriate.					
Packaging is suitable for local textile products.					
Packaging reflects the unique weaving.					
Shape of packaging is appropriate for the product.					
Packaging design is appropriate for the product.					
Packaging is attractive.					

### 2.4 Procedure

The survey was carried out with the help of an independent research assistant who recruited volunteer participants in various shops in the local region. Participants were told of the purpose of the study and shown examples of each packaging design, both in 3D and in pictorial form and asked to rate each on a 5-point scale (see Figure 2). For each participant the testing process took approximately 15 minutes.

### 3. Results

For the present purposes an overall score was calculated for each package design by taking a mean average of the ratings for the original 7 dimensions used in the questionnaire. This provides a basis for comparing the preferences for each design. Figure 3 shows the overall means for each of the 15 designs graphically.

Using a One-way Analysis of Variance we found there were significant differences across all the designs ( $F_{14, 2970} = 9.459$ ;  $MS_e = 0.432$ ;  $p < 0.0001$ ) demonstrating some designs were preferred over others.

Based on the bar graph in Figure 3 the package design scoring highest was P13, followed closely by P1, P5 and P14. This was confirmed using Tukey's pairwise comparisons, which showed P13 was significantly preferred over all other designs ( $p < .05$ ) except P1 ( $p > .06$ ), P5 ( $p > .1$ ) and P14 ( $p > .09$ ).

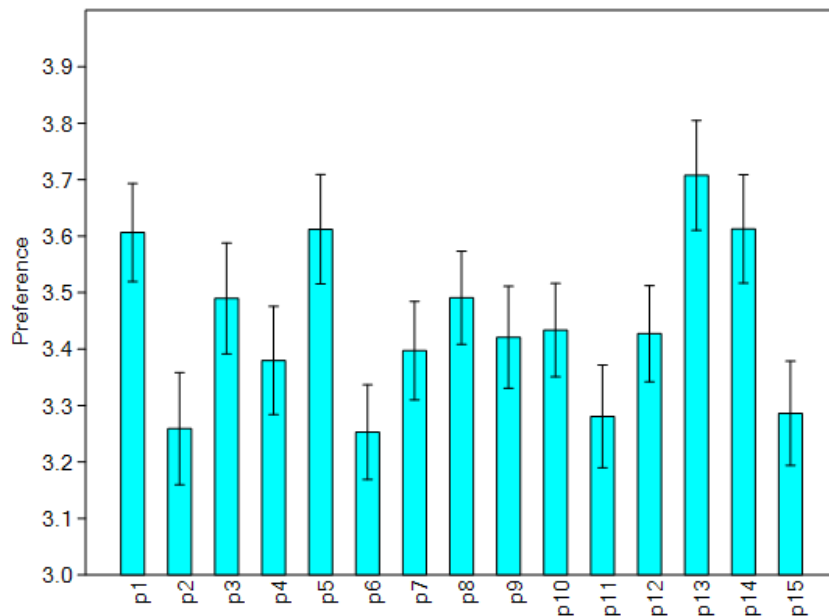


Figure 3. Overall mean preference scores and standard errors for each of the fifteen packaging designs.

#### 4. Discussion

From the analysis of preference scores given by the sample from the general public in Thailand, package designs P13, P1, P5 and P14 were preferred over all others. At first glance it was not obvious why this was the case. However, close inspection shows two main common features shared by these designs. Firstly they are each relatively flat designs, which would suit fabrics folded in a traditional way. Secondly, they each have a window, which makes a small area of the surface of the contents visible (less than 50%). This is consistent with other studies that have shown the presence of a window helps make purchasing decisions (Hine, T. 1995). In addition, each of these four preferred designs uses a light brown colour pallet, which matches the kinds of traditional fabric the packages are intended for.

The less popular designs may have shared some, but not all of these features. Either dominant colours were shades other than a light brown brown (P3, P6, P7, P8, P10, P11) or box shapes were narrow and elongated (P2, P4, P10, P11, P12, P15). The odd one out is P9, which shares all the features of the four most popular except on - the pattern and text on the package is small by comparison, suggesting that the images used on the package is also important.

This study has demonstrated the value of a satisfaction survey using sample of participants from the target market in helping to decide between a number of alternative packaging designs. The outcome has been presented as guideline options for Cloth Weaving Group Baannongkaen to pick out packaging that meets the satisfaction of the target group for linking between producers and consumers that can result to the process of marketing promotion or can be used as marketing strategies to

increase sales of Baannongkaen's cloth weaving group, village 4, Lao sub-district, Kosumpisai district, Mahasarakham province. One of the most important aims is to help the region's economy by making the products better known and desirable. The preservation of the textile culture in the region will be one of the best ways to preserve the culture and tradition and the indigenous knowledge of the Mahasarakham province. We believe this study has achieved the require outcome and will help develop a unique, recognisable and attractive packaging brand for the local products.

**Acknowledgements:** This study was made possible by the excellent designs produced by the students of Faculty of Architecture Urban Design and Creative Arts of Mahasarakham University and the help of [research assistant].

## 5. References

Hine, T. (1995). *The Total Package*, Little, Brown&Co., Boston, MA.  
Peters, M. (1994). Good packaging gets through to fickle buyers, *Marketing*,  
Underwood, R.L. (2003), "The communicative power of product packaging: creating brand identity via lived and mediated experience", *Journal of Marketing Theory and Practice*, Winter, pp. 62-76.

Underwood, R.L., Klein, N.M. and Burke, R.R. (2001). Packaging communication: attention effects of product imagery, *Journal of Product & Brand Management*, Vol. 10 No. 7, pp. 403-22

Yukimatsu, K., Chantachon, S., Pothisane, S., Kobsiriphat, W. (2008). Comparing Local Silk Textiles: The Thai-Lao Matmii and the Japanese "Tumugi" Kasuri.

*Sojourn: Journal of Social Issues in Southeast Asia*, Vol. 23, No. 2, pp. 234-251

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