Enhancing textile enterprises for a more sustainable society, through design research and website development

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Abstract: Handmade textile production in Thailand has qualities that accord with sustainability. It is an intangible cultural heritage and a resourceful element for presenting the national identity of Thailand. However, handmade textile production and experienced weavers have been in severe decline. There is the potential loss of weaving skills and knowledge being transferred to younger generations. Design can help to foster a sustainable future of handmade textile producers. This research focused on design for marketing and sales that is to create a website for the Cotton Farm Limited Partnership. Website is a marketing tool to foster sales and convey the brand image. Research outcomes include: (i) a website: www.cottonfchiangmai.com; (ii) a design process and collaborative support-strategies enabling people to participate in fostering a sustainable future of handmade textile production; (iii) perspectives towards business concept, craft courses and products. Lastly, it concludes with recommendations for new product ranges and potential areas for development.

Keywords: Design research, Ethnographic approach, Textile enterprise, Website development, Collaboration, Chiang Mai, Thailand
1. Traditional craft, sustainability and design

Among many countries worldwide, Thailand has been recognized for its traditional cultures, including weaving. Handmade textile production has been inherited by craftspeople for generations. It is an intangible cultural heritage that has long been a resourceful element and a strategy for building national identity and Soft Power of Thailand (Kosit Panpiemras cited in Chudasri, 2015, p.137). Additionally, it has many qualities that accord with the Walker’s Quadruple Bottom Line of Sustainability (QBL) (Chudasri, 2015). Traditional weaving is done in specific geographical areas of Thailand, contributing to environmental quality, socio-cultural development, socio-economic development and self-development (Cohen, 2000; Wherry, 2008; NESDB, 2008, 2011; OSMEP, 2010). Design for Sustainability (Walker, 2011, 2013, 2016) takes account of: Practical Meaning (utility plus the environmental effects); Social Meaning (justice and equity); Personal Meaning (conscience, inner values and spiritual wellbeing); and Economic Means (financial viability of human endeavors as a way of ensuring the other three).

However, since the end of World War II, traditional weaving has been in severe decline in many parts of Thailand, affected by the rise of industrial factories and the number and choices of mass-produced goods (Cohen, 2000; Wherry, 2008; Chudasri, 2015, p.249). There has been a shortage of experienced weavers and younger practitioners in traditional weaving (Chudasri, 2015, p.249). Many experienced weavers have passed away, while some weavers are older than normal retirement age or above 50 years old (Chudasri, 2015, p.249). Currently, there are not many weavers who are between 20 and 49 years old (Chudasri, 2015, p.249). Many people have migrated to towns and cities to take up jobs that can provide a higher income or to study in higher education as well as to live a more modern lifestyle (Chudasri, 2015, p.249). Consequently, this is evidence of the potential loss of weaving skills and knowledge being transferred to younger generations. The future of traditional weaving in Thailand is uncertain. If traditional weaving were to vanish, Thailand would lose competitive advantages in terms of a cultural resource and a cultural identity, which are elements within the Soft Power of Thailand (Kosit Panpiemras cited in Chudasri, 2015, pp.144, 250).

Clearly, it is critical to ensure a sustainable future of traditional weaving and handmade textile production in Thailand. Design can make a constructive contribution in four areas; these include (i) design in production, (ii) product design and development, (iii) design for marketing and sales, and (iv) design for skills and knowledge transfer (Chudasri, 2015, pp.230-237).

2. Initiating a research project

In 2015, the two researchers resumed work at the university. Both of us discussed research interests and areas of expertise such as Design for Sustainability and information technology. This has resulted in a research team working on a research initiative between January and December 2016. The research was initiated based on field observation and discussions with three textile producers, two in Chiang Mai province and another in Phrae province. Lines of inquiry included: What are opportunities for Design for Sustainability? How could we enable various groups of people, especially the young generation to participate in fostering a sustainable future of handmade textile production? Rationales for selecting a collaborative partner included: (i) scope of work, which would be appropriate for the researchers to successfully complete it within a budget and one-year timeframe; (ii) possibility to recruit team members to support research activities; (iii) timing and

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1 **Soft Power:** A concept developed by Joseph Nye of Harvard University since the 1990s. It describes the ability of a country to persuade others to do what it wants without force or coercion; its three main resources include culture, political values and foreign policies (Nye, 2004).
availability between textile producers and the researchers; (iv) travel duration and expenses between the university and the locations of textile producers; and (iv) ability of textile producers in response through various communication channels, such as mobile phones and Line Application, email, social media such as Facebook, digital devices and in person. Consequently, the researchers took up an opportunity to create a new website for the Cotton Farm Limited Partnership. Cotton Farm was founded by Premruedee Kullasu in Chiang Mai in 1998, with a focus on producing locally-made textile products from cotton fabrics. Since then, it has produced various textile crafts, such as gifts and souvenirs, home decoration items, handbags, clothes, fabrics, and cotton threads. Textile crafts have been distributed to domestic markets and also exported to customers in Japan, America, United Kingdom and European countries.

The Internet connects millions of computers and resources throughout the world (O’Leary, et al, 2015). A website is a multimedia interface, allowing users at convenient times to access resources that are available on the Internet (O’Leary, et al, 2015). It supports interactive media and this kind of information can be attractive to many people, compared to print media such as magazines (O’Leary, et al, 2015). Cotton Farm identified a need for creating a new website because the company has recently refocused its business management and branding. A website would be a marketing tool to foster sales as well as convey the brand image of Cotton Farm to appeal potential customers. Cotton Farm also shared insights into managing the previous website. For example, it had often faced issues in communication and dealing with the Web developers. There were for example, issues in developing the website interface and contents, especially text-based and photographic information. Moreover their service fees have increased and become too expensive for the company to bear.

Therefore, a new website should be flexible for changing contents, especially text-based and photographic information. It should be appealing to potential customers, convenient to use and easy to understand by various people, including Thais and foreigners. The scope of work would include: registration of a domain name with a web hosting service provider; content design in Thai and English; collections of information and materials needed such as photographs; website design and development of around five pages and perhaps animated clips. It excluded website features for e-commerce. Going beyond an ordinary web-service, the researchers discussed with Cotton Farm and the Web developer if they would agree to include activities that could enable various people to participate in fostering a sustainable future of handmade textile production – as part of the process. All of us did not know exactly what issues we would face, but we agreed to take it. This has resulted in a design process and collaborative support-strategies as follows.

### 3. Design process and methods of inquiry

Design process in this research refers to a process of website creation and development. It involved various people, including: a specialist in design; a specialist in information technology (IT); a Web developer; a representative from the Cotton Farm Limited Partnership; six volunteer students; and survey respondents (112 people, including 73 Thais and 39 foreigners). They can be broadly classified by their roles as: external and internal collaborators/participants; and production and demand groups. There were a variety of people in each zone of internal collaboration, external collaboration, production group and demand group. Each collaborator/participant might take multiple roles varying from one zone to another.

**Production Group** comprised four teams, as follows.

1. **Core team** – included 3 people.
The specialist in design served as the principal researcher and was responsible for content design, enhancing the art direction, and project management.

The specialist in information technology was a co-researcher, responsible for managing the Web developer and website design and development.

The representative of Cotton Farm provided data and materials of handmade textiles relevant for research and website design and development.

Throughout the design process, the principal researcher needed to ensure that all core team members agreed on both academic and business goals that could be achieved within timeframe and budget.

2. **Business team** – included 2 persons: the specialist in design and the representative of Cotton Farm.

3. **Website design and development team** – included 2 persons: the specialist in information technology and the Web developer.

4. **Research support team** – included 6 volunteer students. They worked under supervision of the specialist in design.

**Demand Group** comprised two teams as follows.

1. **Everybody in the Production Group** – had to recruit as many people to view the Cotton Farm demo website and ask them to complete a survey. The survey was aimed to:
   - Introduce Cotton Farm to various people in Thailand and abroad;
   - Gain feedback and recommendations towards the website contents and the products and craft courses of Cotton Farm;
   - Provide results that the principal researcher could use to determine website development and finalization as well as for potential areas for further research.

The Production Group approached people through meeting in person or via email and social media, especially Facebook. People were informed about the research project and the Cotton Farm demo website. The survey was carried out with informed consent.

2. **Survey respondents** – were requested to view the demo website and then answer the survey questionnaire. It would take around 10–15 minutes. There were 16 questions. Six questions inquired general information of respondents such as gender, age group and occupation. Another six questions inquired of interest towards website contents, products and craft courses. The other four questions asked for recommendations, such as for other craft activities and products. This process lasted one month in July 2016. This has resulted in 112 survey respondents, including 73 Thais and 39 foreigners. The Thai respondents included 22 males and 50 females, while the foreign respondents included 15 males and 24 females. The numbers of respondents identified by age groups and occupations are summarized as follows.
A new Cotton Farm website is absolutely an outcome of the design process. Additionally, this has resulted in collaborative support-strategies employed to motivate various people to participate in fostering a sustainable future of handmade textile production. Their roles and relationships in the design process are summarized in Table 2 and depicted in Figure 1 as follows.

### Table 1. Numbers of respondents identified by age groups and occupations.

| Age groups | Occupations* |
|------------|--------------|
| • 11–20 years (16 Thais; 0 foreigners) | • Students (26 Thais; 7 foreigners) |
| • 21–30 years (16 Thais; 7 foreigners) | • Business owners (5 Thais; 8 foreigners) |
| • 31–40 years (14 Thais; 13 foreigners) | • Government officers (12 Thais; 3 foreigners) |
| • 41–50 years (17 Thais; 13 foreigners) | • Taking time off/ housewife/ retirement (6 Thais; 5 foreigners) |
| • 51–60 years (6 Thais; 2 foreigners) | • Workers for paid works (4 Thais; 0 foreigners) |
| • 61–70 years (4 Thais; 4 foreigners) | • Employees of private companies (15 Thais; 5 foreigners) |
| | • Employees of state/public enterprises (2 Thais; 9 foreigners) |
| | • Other (1 Thai working as a consultant; 2 foreigners working as a design consultant and a designer) |

* Two Thai respondents did not answer this question.
Table 2. Relevant people and their roles involved in collaborative support-strategies.

| Collaborative support-strategies                                                                 | Relevant people |
|--------------------------------------------------------------------------------------------------|-----------------|
| Website ideation, gathering information, designing website contents                               | Specialist in design | Specialist in IT | Web developer | Cotton Farm | Volunteer students | Survey respondents |
| Website design and development                                                                  | ✓ | ✓ | ✓ | ✓ | ✓ |
| Learning craft activities (tie-dyed fabrics, basic weaving), taking photographs of craft activities and products, creating animated clips | ✓ | ✓ | ✓ | ✓ | ✓ |
| Discussions (inquiries, brainstorming) with relevant people for feedback and recommendations (Everybody of the Production Group experienced these activities throughout the process). | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Creating a survey questionnaire and an online survey using Google Forms and linking it with the demo website | ✓ | ✓ | ✓ | ✓ | ✓ |
| Dissemination of the demo website, conducting the survey with Thais and foreigners, ensuring sufficient number of respondents | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Responses to the survey and provided recommendations                                               | ✓ | ✓ | ✓ | ✓ | ✓ |
| Finalization of a new Cotton Farm website and website launch                                      | ✓ | ✓ | ✓ | ✓ | ✓ |
Figure 1. Relationships between relevant people involved in design process and collaborative support-strategies.
4. A new Cotton Farm website

The new Cotton Farm website was built from nothing at all because the previous website was not available on the Internet. Moreover, Cotton Farm could not find the information of the web hosting service provider that it had used. Therefore, it was necessary to register a new “domain name” with a “web hosting service provider”. The new domain name is cottonfchiangmai.com. Website design and development took 8 months between March and October 2016. The website had been revised four times. Amendments were determined by the principal researcher based on recommendations from the Production Group and the Demand Group. Eventually, the website was completed and launched in November 2016. Cotton Farm has already inquired the principal researcher and the university for approval for Cotton Farm to use the website domain, namely cottonfchiangmai.com. It is agreed that from February 2017, Cotton Farm will be responsible for fees charged by the web hosting service provider. Home page of Cotton Farm website and a sitemap are depicted as follows.

Figure 2. Home page of the new Cotton Farm website (www.cottonfchiangmai.com).

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2 **Domain name** is a website name. It is an address where the Internet users can access a website. A domain name is used to find and identify computers on the Internet. Computers use IP addresses, which are a series of numbers (Tseng and Yang, 2007).

3 **Web hosting service providers** offer system resources (e.g. disk space, processors, memory, bandwidth to the Internet) to store and provide Web access to contents from companies who lack resources or expertise to maintain a Web site (Tseng and Yang, 2007).
5. Survey results

Survey results included;

- Perspectives towards website contents (business concept, learning craft, craft products);
- Perspectives towards six product categories;
- Perspectives towards craft activities.

5.1 Perspectives towards website contents (business concept, learning craft, craft products)

Question 7 inquired about interests in three contents of the demo website, including: (i) a business concept of Cotton Farm, focusing on craft inheritance and local ways of living; (ii) learning craft through short courses; and (iii) craft products. Each respondent could select more than one answer. 108 respondents, including 71 Thais and 37 foreigners answered this question. More than half of 108 respondents were interested in all three contents of which craft products received the most number of interested respondents (n=63). While, the most number of Thai respondents (n=45) were interested in craft products, most of foreign respondents were keen to know about the business concept (n=22). Additionally, four foreign respondents informed other areas of interest, including “the research project” and “buying function” of Cotton Farm.
Table 3. Numbers of respondents in perspectives towards business concept, learning craft, and craft products.

| Areas of interest  | Quantity of respondents |
|-------------------|-------------------------|
|                   | Thai (n=71)             | Foreign (n=37) | Total (n=108) |
|                   | Persons | Per cent | Persons | Per cent | Persons | Per cent |
| Business concept  | 32      | 45.1%    | 22      | 59.5%    | 54      | 50.0%    |
| Learning craft    | 40      | 56.3%    | 16      | 43.2%    | 56      | 51.9%    |
| Craft products    | 45      | 63.4%    | 18      | 48.6%    | 63      | 58.3%    |
| Others            | 0       | 0.0%     | 4       | 10.8%    | 4       | 3.7%     |

5.2 Perspectives towards six product categories

Question 13 inquired about interests towards six product categories, including gifts, home-decorations items, handbags, clothes, fabrics and cotton threads. Each respondent could select more than one product category. 108 respondents, including 72 Thais and 36 foreigners answered this question. The number of interested respondents towards each product category can be identified from most to least as follows: clothes (n=59); fabrics (n=47); gifts (n=45); home-decorations items (n=40); hand bags (n=39); cotton threads (n=14). However, the interests of respondents in Thais and foreigners groups varied. In Thais group, interest towards each product category is ranked from most to least as for: clothes (n=44); hand bags (n=34); fabrics (n=28); gifts (n=27); home-decorations items (n=22); cotton threads (n=7). On the other hand, in foreigners group, products ranking is identified from most to least as follows: fabrics (n=19); gifts and home-decorations items (n=18 each); clothes (n=15); cotton threads (n=7); handbags (n=5).

Table 4. Numbers of respondents in perspectives towards each product category

| Product categories       | Quantity of respondents |
|--------------------------|-------------------------|
|                          | Thai (n=72)             | Foreign (n=36) | Total (n=108) |
|                          | Persons | Per cent | Persons | Per cent | Persons | Per cent |
| Gifts                    | 27      | 37.5%    | 18      | 50.0%    | 45      | 41.7%    |
| Home-decoration items    | 22      | 30.6%    | 18      | 50.0%    | 40      | 37.0%    |
| Hand bags                | 34      | 47.2%    | 5       | 13.9%    | 39      | 36.1%    |
| Clothes                  | 44      | 61.1%    | 15      | 41.7%    | 59      | 54.6%    |
| Fabrics                  | 28      | 38.9%    | 19      | 52.8%    | 47      | 43.5%    |
| Cotton threads           | 7       | 9.7%     | 7       | 19.4%    | 14      | 13.0%    |
Question 14 inquired **rationales for products selection.** These are classified into two themes and described as follows.

**Table 5. Rationales for products selection.**

| Themes and description | Quantity of respondents |
|------------------------|-------------------------|
|                        | Thai | Foreign | Total |
| **Product design and appearance** |       |
| Product appearance is appealing. Products were designed to have unique identity that can be recognized from various elements. These include: |       |
| • Product styles described as being stylish, contemporary, and local sensitivity; | 24 | 13 | 37 |
| • Product colour schemes that are quite light and vibrant; | | | |
| • Fabrics that are made from natural materials, e.g. cotton threads with rich textures and unique patterns and colour schemes; | | | |
| • Sewing patterns and high quality work. | | | |
| **Product applications** |       |
| Products can be applied for multiple purposes, such as for: |       |
| • Personal use in daily life on various occasions; | 23 | 8 | 31 |
| • Gifts giving to various people, especially family and children in different occasions; | | | |
| • Reminding someone about their moments in particular places; | | | |
| • Making products using cotton fabrics and/or cotton threads. | | | |
5.3 Perspectives towards craft activities

Question 8 inquired regarding interests in learning craft. More than half of 112 respondents, including Thais (n=50) and foreigners (n=25) wanted to learn craft activities. They expressed that they love traditional cultures and learning and making crafts. In some countries, it is difficult to find traditional craft being a part of culture, products as well as businesses. It is interesting to see how traditional craft can be applicable to our contemporary lives.

Question 9 inquired of interests towards craft activities. Respondents could select more than one answer. These included tie-dye fabrics, natural dyes, chemical dyes, spinning threads, setting threads on handlooms, weaving (basic level), and weaving (traditional patterns). 82 respondents, including 54 Thais and 28 foreigners answered this question. More than half of 82 respondents, including Thais and foreigners were interested in natural dyes (n=56), weaving in basic level (n=49), and tie-dye fabrics (n=42). Natural dyes have held the highest number of respondents, including Thais and foreigners (n=37; n=19). However, their preferences towards other craft activities varied. Besides natural dyes, Thai respondents were interested in tie-dye fabrics (n=31) and weaving in basic level (n=30), while foreign respondents were keen to learn weaving in basic level (n=19) and weaving in traditional patterns (n=15).

Table 6. Numbers of respondents in perspectives towards each craft activity.

| Craft activities               | Quantity of respondents |
|-------------------------------|-------------------------|
|                               | Thai (n=54)             | Foreign (n=28) | Total (n=82) |
|                               | Persons | Per cent  | Persons | Per cent  | Persons | Per cent  |
| Tie-dye fabrics               | 31      | 57.4%     | 11      | 39.3%     | 42      | 51.2%     |
| Natural dyes                  | 37      | 68.5%     | 19      | 67.9%     | 56      | 68.3%     |
| Chemical dyes                 | 5       | 9.3%      | 3       | 10.7%     | 8       | 9.8%      |
| Spinning threads              | 14      | 25.9%     | 11      | 39.3%     | 25      | 30.5%     |
| Setting threads on handlooms  | 9       | 16.7%     | 8       | 28.6%     | 17      | 20.7%     |
| Weaving (basic level)         | 30      | 55.6%     | 19      | 67.9%     | 49      | 59.8%     |
| Weaving (traditional patterns)| 19      | 35.2%     | 15      | 53.6%     | 34      | 41.5%     |
Question 11 asked respondents to choose a budget per person, which they would spend on learning craft. There were five alternatives (less than 1,000 baht; 1,001–2,500 baht; 2,501–5,000 baht; more than 5,000 baht; other recommendations). 95 people, including 64 Thais and 31 foreigners answered this question. Budgets between 1,001–2,500 baht and less than 1,000 baht were selected by almost exactly the same numbers of Thai respondents (n=25, 26), while a budget between 1,001–2,500 baht was selected by 11 foreign respondents. This has resulted in a budget between 1,001–2,500 baht holding most preferable budget in general (n=36). Around 15% of 95 respondents would pay between 2,501–5,000 baht, while around 5% of them would pay more than 5,000 baht. On the other hand, four respondents preferred it to be free of charge, while another described that a budget could actually be even much higher if it would be for organizing a craft workshop in collaboration with partners from overseas. A budget would involve covering many expenses, e.g. for organizing a workshop, craft materials and equipment, travel expenses, accommodations.

Table 7. Numbers of respondents in perspectives towards a budget for learning craft.

| Budget preference            | Quantity of respondents | Thai (n=64) | Foreign (n=31) | Total (n=95) |
|-----------------------------|-------------------------|-------------|----------------|--------------|
|                             | Persons | Per cent | Persons | Per cent | Persons | Per cent |
| Less than 1,000 baht        | 26      | 40.6%    | 8       | 25.8%     | 34       | 35.8%    |
| 1,001–2,500 baht            | 25      | 39.1%    | 11      | 35.5%     | 36       | 37.9%    |
| 2,501–5,000 baht            | 10      | 15.6%    | 5       | 16.1%     | 15       | 15.8%    |
| More than 5,000 baht        | 2       | 3.1%     | 3       | 9.7%      | 5        | 5.3%     |
| Other                       | 1       | 1.6%     | 4       | 12.9%     | 5        | 5.3%     |
Question 12 asked respondents to select the **duration**, which they would prefer to learn crafting. They could choose more than one alternative, among the four (0.5–1 day; 3 days; 5–7 days; other recommendations). 96 people, including 62 Thais and 34 foreigners answered this question. 61 respondents, including 35 Thais and 26 foreigners voted for a short course lasting between 0.5–1 day. These numbers are equal to more than half of interested respondents from each group. This finding contrasts a few comments anticipated that several days would be popular among visitors from abroad.

| Duration  | Quantity of respondents |
|-----------|--------------------------|
|           | Thai (n=62)           | Foreign (n=34) | Total (n=96) |
|           | Persons (%)           | Persons (%)   | Persons (%) |
| 0.5–1 day | 35 56.5               | 26 76.5       | 61 63.5     |
| 3 days    | 24 38.7               | 8 23.5        | 32 33.3     |
| 5–7 days  | 6 9.7                 | 3 8.8         | 9 9.4       |
| Other     | 0 0.0                 | 0 0.0         | 0 0.0       |

### 5. Conclusions

Handmade textile production in Thailand has many qualities that accord with the Walker’s Quadruple Bottom Line of Sustainability (QBL). These include: Practical Meaning (utility plus the environmental effects); Social Meaning (justice and equity); Personal Meaning (conscience, inner values and spiritual wellbeing); and Economic Means (financial viability of human endeavors as a way of ensuring the other three). Moreover, it is an intangible cultural heritage that has long been a resourceful element and a strategy for building the national identity and Soft Power of Thailand. However, handmade textile production and experienced weavers have been in severe decline in many parts of Thailand. There is the potential loss of weaving skills and knowledge being transferred to younger generations. The future of traditional weaving in Thailand is uncertain.

Design can make a constructive contribution to foster a sustainable future in four areas. These include (i) design in production, (ii) product design and development, (iii) design for marketing and sales, and (iv) design for skills and knowledge transfer. In this research, design for marketing and sales was focused and it was implemented in collaboration with a textile producer, namely the Cotton Farm Limited Partnership. The company wanted to have a new website because it has recently refocused the business management and branding. Besides, it has faced other issues in maintaining the previous website. Therefore, a new website would be a marketing tool to foster sales and convey the brand image of Cotton Farm to appeal potential customers.

As a result, the website, namely www.cottonfchiangmai.com has been created. Additionally, a design process and **collaborative support-strategies** that enabled various people to participate in fostering a sustainable future of handmade textile production emerged. Examples include: learning craft activities (plus taking photographs for producing animated clips); inquiry and discussions with relevant people; dissemination of the demo website and conducting the survey with 73 Thais and 39 foreigners. Furthermore, the survey has informed a variety of perspectives towards the business concept of Cotton Farm, its craft courses and products. 11 respondents,
including 7 Thais and 4 foreigners recommended that the company should produce a greater variety of products, such as clothes and handbags. Furniture and fabrics for home furnishing is a huge market sector, which local textile producers have not usually gained access to. Respondents also recommended new product ranges for further development.

Table 9. New product ranges for further development.

| Product ranges and descriptions | Quantity of respondents |
|---------------------------------|-------------------------|
|                                 | Thai | Foreign | Total |
| **Products for men**            |      |         |       |
| Products in dark colour schemes, such as deep indigo would be preferable. Recommended products included: items associated with electronic accessories, e.g. laptop cases, mobile phone cases; male clothing and accessories, e.g. wallet, satchels, and shoes. | 1 | 7 | = 8 |
| **Products for women**          |      |         |       |
| Products for everyday life and holidays were recommended, for example: hair accessories, e.g. hats; clothing accessories, e.g. handkerchief, shawls, shoes and underwear made from natural fibres suited for people with skin allergies to chemical ingredients. | 7 | 1 | = 8 |
| **Other product categories**    |      |         |       |
| • Thai artworks made from fabrics and remnants | 1 | 1 | = 2 |
| • Products for kids             | 1 |         | = 1 |

**NEXT STEPS**

The new Cotton Farm website can be enhanced by adding more functions as a dynamic website. The website system could be further developed to support various functions, such as database management, administration and shopping cart. Products page may be improved in navigation that may not show all products at once. There should be more detailed information about products. Some photographs could be enhanced or changed. Potential areas for future development include product design and development, and craft courses. Both will suit with the aims of Cotton Farm for establishing a craft school along with craft tourism.
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Dedication: This work is dedicated to the late King Bhumibol Adulyadej of Thailand, who passed away in October 2016. He had demonstrated sustainable ways of living for more than half a century. These include sufficiency economy principles and local craft production. Lastly, we wish for the craft spirit, including peace and happiness to flourish in the masses of people worldwide.