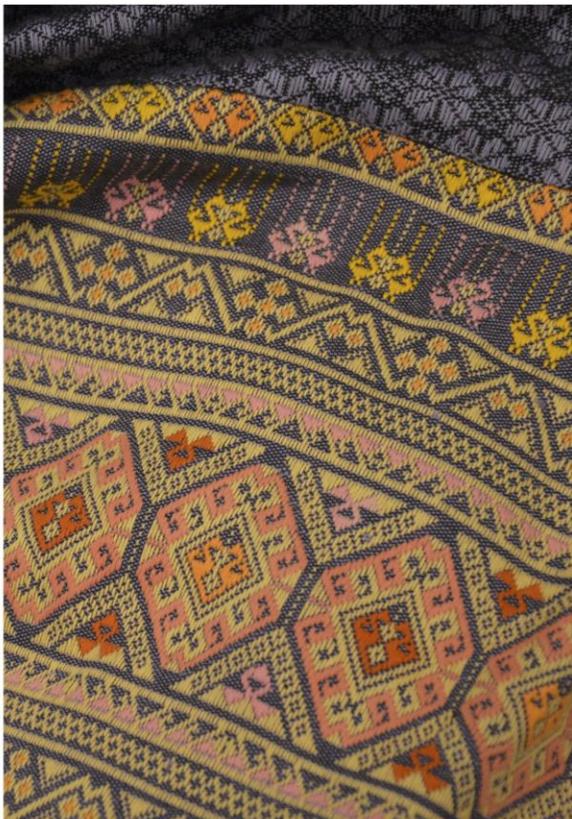




PRESERVATION OF THE TRADITIONAL HANDCRAFTED PAA SIN DTEEN JOK OF HAAD SIEW, SUKHOTHAI



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Preservation of the Traditional Handcrafted Paa Sin Dteen Jok of Haad Siew, Sukhothai

An Interactive Science and Social Project

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Abstract

Our goal was to identify the causes in the lost popularity of *Paa Sin Dteen Jok* traditional production process in Haad Siew subdistrict, Sukhothai province and to determine the most effective promotional methods that would contribute on increasing the appreciation of the general public towards traditionally handcrafted *Paa Sin Dteen Jok*. We found that the traditional production process of *Paa Sin Dteen Jok* is on the verge of being lost due to the emergence of industrialization, which leads to an extensive price competition within the market and therefore, resulting in the loss of incentives for new generations to pursue such tradition. The project then aimed to raise the *Paa Sin Dteen Jok* textile products to the upper market by capturing the population's attention through stimulation the 100% handcrafted *Paa Sin Dteen Jok* production in order to help sustainably preserve the tradition as well as the local economy system. Using interviews, survey questionnaires, archival research, and direct observations we identified that much of the general population are unaware of the 100% handcrafted *Paa Sin Dteen Jok* production process which led to the decrease of its value and demand. We designed postcards and bookmarks as well as suggested recommendations for our sponsor, the Sukhothai College of Dramatic Art, Haad Siew weaving center, and the relevant authorities. These recommendations can be expanded upon to help in the preservation of the traditional handcrafted process of *Paa Sin Dteen Jok*.

Abstract (บทคัดย่อ)

การศึกษาวิจัยเรื่อง การอนุรักษ์สืบสานวัฒนธรรม ผ้าชิ้นตีนจก ผ้าไทยพื้นบ้านดั้งเดิมของชาวบ้านตำบลหาดเสี้ยว อำเภอศรีสขณาสัย จังหวัดสุโขทัย มีวัตถุประสงค์ ๑) เพื่อทำความเข้าใจต่อมุมมองของบุคคลทั่วไปที่มีต่อผลิตภัณฑ์สิ่งทอที่ทำด้วยมือ ๑๐๐% ๒) เพื่อหากลยุทธ์ใจผู้บริโภคทั่วไปให้หันมาซื้อผ้าชิ้นตีนจกที่ทำมือ ๑๐๐% ๓) เพื่อวิเคราะห์ปัญหาและอุปสรรคของกระบวนการผลิตผ้าชิ้นตีนจกด้วยวิธีการดั้งเดิม ในตำบลหาดเสี้ยว จังหวัดสุโขทัย ๔) เพื่อเสนอวิธีพัฒนากระบวนการผลิตผ้าชิ้นตีนจก ซึ่งข้อมูลได้ถูกรวบรวมจากกลุ่มผู้ทอผ้าชิ้นตีนจกหาดเสี้ยว ผู้เชี่ยวชาญเรื่องผ้าไทย และผู้บริโภคทั่วไป โดยใช้วิธีการสัมภาษณ์ การทำแบบสำรวจความต้องการผู้บริโภค การสังเกตแบบมีส่วนร่วม และนำมาวิเคราะห์ข้อมูลเชิงปริมาณและการวิเคราะห์ข้อมูลเชิงคุณภาพ

ผลการศึกษาพบว่า การที่ผู้ทอผ้าชิ้นตีนจกหาดเสี้ยวด้วยกระบวนการดั้งเดิมมีจำนวนลดน้อยลง สืบเนื่องมาจากผ้าชิ้นตีนจกมีราคาต่ำ ซึ่งมีอิทธิพลมาจาก ๒ ปัจจัยหลัก คือ ผู้ทอส่วนใหญ่ไม่ให้ความสำคัญกับฝีมือแรงงานของตนเอง และการเกิดขึ้นของอุตสาหกรรมสิ่งทอที่มีเทคโนโลยีทันสมัยในการผลิตผ้าทอด้วยเส้นใยสังเคราะห์ ซึ่งสามารถผลิตได้เร็วและขายให้แก่ผู้บริโภคในราคาที่ต่ำลงด้วยเหตุนี้เองคนรุ่นใหม่จึงไม่นิยมที่จะทอผ้าชิ้นตีนจกแต่หันไปสนใจกับอาชีพอื่นแทน ทางคณะผู้วิจัยจึงประสงค์ที่จะเพิ่มราคาของผ้าชิ้นตีนจกให้สูงขึ้นเพื่อเน้นจับตลาดบน คือ ผ้าชิ้นตีนจกทำมือ ๑๐๐% นอกจากนี้ ทางคณะผู้วิจัยได้สืบค้นเครื่องมือที่ช่วยในกระบวนการผลิตผ้าชิ้นตีนจกด้วยวิธีการดั้งเดิม อีกทั้งยังได้เสนอแนะวิธีกระตุ้นให้คนทั่วไปเห็นถึงคุณค่า ของผ้าชิ้นตีนจก ที่จะนำไปสู่การพัฒนา และฟื้นฟูเศรษฐกิจ สังคม และศิลปวัฒนธรรมของชุมชน ให้ชาวบ้านได้มีวิถีชีวิตความเป็นอยู่ที่ดีขึ้น

ในการศึกษาครั้งนี้ มีข้อเสนอแนะที่เป็นประโยชน์ คือ การจัดให้มีการร่วมมือกันระหว่างวิทยาลัยนาฏศิลป์สุโขทัย และ วิทยาลัยเทคนิคสุโขทัย ในการทำโครงการเพื่อพัฒนาเครื่องมือทางเลือกที่ใช้ทุนแรงในกระบวนการผลิตของผ้าชิ้นตีนจก และทำการจัดสรรพื้นที่ในบริเวณวิทยาลัยนาฏศิลป์สุโขทัยเพื่อใช้ในการจำหน่ายผ้าไทยพื้นเมืองและอาหารพื้นเมืองต่างๆ ในวันหยุดสุดสัปดาห์หรือในวันหยุดนักขัตฤกษ์ ในขณะที่เดียวกัน คณะผู้วิจัยก็มีข้อเสนอแนะแก่ศูนย์หัตถกรรมพื้นบ้านโบราณหาดเสี้ยว โดยการเปิดศูนย์การเรียนรู้ผ้าชิ้นตีนจกเพิ่มเติม ภายในตัวเมืองสุโขทัย และให้มีการนำอุปกรณ์/เครื่องมือทุนแรงมาปรับใช้เพื่ออำนวยความสะดวกในกระบวนการผลิต เช่น เครื่องแม่เดลริจ็กกร่า อย่างไรก็ตาม ทางเรายังมีข้อเสนอแนะสำหรับหน่วยงานที่เกี่ยวข้อง คือ การสร้างเครื่องหมายรับรองคุณภาพผลิตภัณฑ์สำหรับผ้าฝ้ายไทย การสนับสนุนให้ชาวบ้านปลูกต้นฝ้าย ซึ่งเป็นวัตถุดิบหลักในการทอผ้า และการจัดทำสื่อประชาสัมพันธ์ เช่นโปสเตอร์ และ ที่คั่นหนังสือ เพื่อเผยแพร่ข้อมูลความรู้ภูมิปัญญาแก่บุคคลทั่วไป

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Glossary of Thai terms

Thai terms are based on Conway Susan. (1992).Glossary. *Thai Textiles*. Published and distributed by Asia book, Thailand.

<i>Aew Fai</i>	One of the cotton making process for separating the cotton seeds out of cotton fiber
<i>Baan</i>	Village
<i>Cherng Sin</i>	The hem piece
<i>Dork</i>	Flower
<i>Dork mhee</i>	Mhee Flower
<i>Dteen Jok</i>	Hem border of a woman's Paa Sin woven with a discontinuous supplementary weft
<i>Fai</i>	Cotton
<i>Fun pla</i>	Cross sectional shapes
<i>Gong</i>	A kind of equipment for flipping collected cotton
<i>Hangkarok</i>	Tail of a squirrel
<i>How Naam Khao Fai</i>	An action of taking the dyed yarns to rinse with rice water in order to make them tougher and stronger
<i>Hua Sin</i>	A top section or a waist band of Paa Sin
<i>Isan</i>	Northeast of Thailand
<i>Jok</i>	To pick or lift out. It describes a discontinuous supplementary-weft technique picked with the aid of a porcupine quill or using the fingers
<i>Keb</i>	Collect, keep

<i>Khen Fai</i>	One of the cotton making process for spinning cotton
<i>Khor</i>	Hook
<i>Klang</i>	Middle
<i>Kluer</i>	Tai, Vine
<i>Kluer Khor</i>	Vine hook
<i>Kon Hoo</i>	One of the weaving process for warping yarns together
<i>Koh</i>	Attach to
<i>Kuak Fai</i>	One of the weaving process for spinning cotton yarn
<i>Lom Fai</i>	One of the cotton making process for rolling cotton
<i>Luang</i>	A weaving motion used in the tapestry weave
<i>Noi</i>	Small, little
<i>Mai</i>	A silk
<i>Mon</i>	Blessing
<i>Naam</i>	Water
<i>Naam Ang</i>	Water from well
<i>Naam Khao Fai</i>	Rice water
<i>Ngoe</i>	Name of a minor pattern
<i>Nok</i>	Bird
<i>Nok Koum</i>	Little bird
<i>Nok Khab</i>	Pecking bird
<i>Nok Moo</i>	Herd of bird

<i>Nuay</i>	Unit
<i>Paa</i>	Cloth
<i>Paa Puen</i>	Plain woven textile
<i>Paa Sin</i>	A woman's woven tubular skirt with one or two side seams
<i>Paad</i>	Eight
<i>Pea Fai</i>	One of the cotton making process for collecting Yarn
<i>Pla</i>	Fish
<i>Sabai</i>	Shoulder cloths
<i>Sibhok</i>	Sixteen
<i>Sibsong</i>	Twelve
<i>Sii</i>	Four
<i>Sin</i>	Central panel of a woman's Paa Sin skirt
<i>Skit</i>	Nudge or scratch off
<i>Song</i>	Two
<i>Soy</i>	Necklace
<i>Soy Mhak</i>	Mhak Necklace, name of a minor patterns
<i>Soy Sa</i>	Sa Necklace
<i>Sueb Hook</i>	One of weaving process for connecting cotton yarns to the frame
<i>Tad</i>	Division of the patterns
<i>Tai</i>	An ethnic group, made up of several sub-group, inhabit from Assam through Burma, Thailand, Laos and Vietnam and parts of southern China

<i>Tai Phuan</i>	Tai Lao group from Xieng Khouang province, Laos
<i>Tai Yuan</i>	Tai ethnic group living in Lanna
<i>Thong</i>	Pattern depicting two birds facing each other
<i>Toon Fai</i>	One of the cotton making process for drying the collected cotton
<i>Tua Sin</i>	The middle section of Paa Sin
<i>Yai</i>	Large, big
<i>Ying Fai</i>	One of the cotton making process for willowing the collected cotton
<i>Yok</i>	A weaving technique used to refer to various types of twill weave. The design is usually related add environment and religious beliefs

Executive Summary

Sukhothai province, known for its rich history, tradition, and culture, is located in the northern region of Thailand. Haad Siew subdistrict, a subdistrict in Si Satchanalai district, Sukhothai province, is also recognized for their descended heritage traditions. Majority of the residences in Haad Siew subdistrict are of *Tai Phuan* ethnicity, which had originally migrated from the Phuan state of Lao since the reign of King Rama III. Among the many cultures the *Tai Phuan* have introduced, *Paa Sin Dteen Jok* is one of the cultural identities that define them. *Paa Sin Dteen Jok* is a type of traditional Thai textiles composed of three main components, the top section (*Hua Sin*) which is normally 12 inches wide, consisting of white, red or brown color and middle section (*Tua Sin*) of the tube skirt, usually compose of plain patterns, which is attached to the bottom section (*Dteen Sin*). Dramatic and attractive patterns are located at the *Dteen Sin* section. A unique ‘Jok’ weaving technique, which involves the weaver picking out the yarns with a porcupine quill stick, is conducted to create the patterns at the *Dteen Sin* section.

The local’s culture and local economy are affected by the current issues of *Paa Sin Dteen Jok*. Recent technological advancements and industrializations have offered convenience to the local artisans by dramatically decreasing the time of the production process. Therefore, majority of the active artisans had substituted the traditional production process with more industrialized means. Profit is not worthwhile for the artisans to invest their efforts in as this is due to the relatively low price of *Paa Sin Dteen Jok*. The low pricing of the product is mainly caused by inconsideration of the pricing approach; the artisans are only evaluating the raw material costs as they devalued the other costs consideration such as their own time spent, skills and expertise. Accordingly, with the low price, the incentive of the new generations to pursue the cultural wisdom in fabricating *Paa Sin Dteen Jok* is lessened. As the majority of the consumers contributing in the demand of the product lacks appreciation towards handcrafted goods by gearing toward cheaper industrial products instead not only that in the long run will the traditional cultures be abandoned, but a collapse of the local economy system may soon follow. Our team initiated research on the path to tackle this problem, and had received tremendous support from the Sukhothai College of Dramatic Art which resulted in the creation of the project.

Methodology

The ultimate goal of this project was to induce the production of 100% handcrafted *Paa Sin Dteen Jok*, which could capture the attention of the upper market that has higher purchasing power. In order to stimulate the production of 100% handcrafted *Paa Sin Dteen Jok*, it was our intention to identify the causes in the lost

popularity of *Paa Sin Dteen Jok* traditional production process in Haad Siew subdistrict, Sukhothai province and to determine promotional methods that would contribute on increasing the appreciation of the general public towards traditionally handcrafted *Paa Sin Dteen Jok*. To achieve the goal of our project, we developed the following objectives:

1. To understand public perception and appreciation of 100% handcrafted textiles
2. To recommend effective persuasion methods aim to increase public appreciation of 100% handcrafted *Paa Sin Dteen Jok*
3. To identify problems and limitations of the traditional handcrafted production process of *Paa Sin Dteen Jok*
4. To determine ways to preserve the unique handcrafted procedures of indigenous *Paa Sin Dteen Jok* within the Haad Siew community for the next generations

The goal of the team was achieved through four main approaches. The first approach was achieved through the identification of the perception and appreciation of the public toward 100% handcrafted textile products, the second approach was through finding effective media in order to incorporate essential messages to persuade the public to appreciate 100% handcrafted *Paa Sin Dteen Jok*. The next approach involved identification of the limitations in the traditional handcrafted production process of *Paa Sin Dteen Jok*, in which allowed the team to gain extensive understanding in order to conduct further actions. The last approach was to research and recommend potential development for the traditional production process as to provide alternatives for the local artisans. In order to evaluate these approaches, several research methodologies were utilized, which included surveys, interviews, archival researches, site assessments and observations.

Results and Analysis

Objective 1: To understand public perception and appreciation of 100% handcrafted textiles

Research question 1: Is traditional Thai textile popular among the public? Does demographic factor have influence on the demand towards Thai textiles?

It was found that 66% of the 582 recipients have purchased traditional Thai textile before, this suggests that there is a market for the traditional Thai textiles. There are only two factors that have influences on the demand of Thai textiles, which are age and salary. Results illustrate that the elder recipients, age of 35 and higher, have more tendency to purchase traditional Thai textiles comparing to the younger group of recipients. The results also show that recipients with higher salary, of more than 20,000 Baht, is more probable to purchase traditional Thai textiles.

Research question 2: Is the public conscious of Thai textiles?

Based on the data, 47% of the sample are unaware of the traditional production process of Thai textiles and 58% are unable to distinguish the differences between hand-spun and mill-spun cotton yarns. The data indicate that the public lacks conscious in Thai textiles as half of the recipients does not realize the complexity of the production process and cannot distinguish the difference between hand-spun and the mill-spun yarns.

Research question 3: Does the public perceive the value of 100% handcrafted textiles?

It was concluded that majority of the sample population realize the value of 100% handcrafted textiles as 87% of the recipients do prefer the hand-spun cotton production processes over the mill-spun. In addition, 86% of the recipients are also willing to pay greater prices for the 100% handcrafted textiles.

Research question 4: Does customer awareness of the traditional handcrafted production process affect their purchase decision of the handcrafted textiles?

It was identified that the recipients with higher awareness for the Thai textiles production process is more likely to purchase 100% handcrafted textiles than those with less awareness by 8%.

As it was found that the market share of *Paa Sin Dteen Jok* from Haad Siew subdistrict can still be expanded and awareness of the population on the production process can positively affect the preference towards 100% traditionally handcrafted textiles. This signifies that if larger portion of the population gained awareness of the traditional production process, then it is likely that interests towards such product can be stimulated.

This conclusion allowed the team to proceed to the subsequent objective which was to find the most suitable medias used to induce public awareness of 100% handcrafted *Paa Sin Dteen Jok*

Objective 2: To recommend effective persuasion methods aim to increase public appreciation of 100% handcrafted *Paa Sin Dteen Jok*

Research question 5: Does the public have interest on printing media: brochure, postcard, and bookmark? Does the length of the passage on printing media affect the public's interest?

It was determined that 13% of the 30 survey participants are interested in brochure and 67% are interested in printing media such as postcard and bookmark. This indicates that the majority of the public has higher interest towards postcard and bookmark. The results also suggest that there is a strong correlation between the descriptive passage length of the printing media and their ability to grab attention of target audience.

Objective 3: To identify problems and limitations of the traditional handcrafted production process of *Paa Sin Dteen Jok*

It was discovered that the cotton yarn preparation step, cotton spinning (*Khen Fai*) is the most problematic procedure within the whole production process of the *Paa Sin Dteen Jok*. Thus, contributes to the abandonment of the other traditional processes required for the cotton yarns preparation. Essentially, this process is then considered as the limiting factor to the production of 100% handcrafted *Paa Sin Dteen Jok*. Apart from the complication in performing the process, artisans have also have health concerns in relation to this cotton spinning procedure. As the cotton spinning device was designed to be placed on the floor, artisans then have to sit in an uncomfortable position which involves sitting on the floor without any back support, holding the device with one foot, reaching one hand out to turn the wheel and the other to pull the yarn.

Hence, researches were then made to explore potential alternatives to the existing cotton spinning device in order to eliminate the health concerns.

Objective 4: To determine ways to develop the *Paa Sin Dteen Jok* 100% handcrafted production process

Based on archival research and interviews, it was found that there is a cotton spinning facilitating device called ‘Medleri Charka’, redeveloped by Chiang Mai University, presently available for sale. The device was regarded to be more effective than the original wooden cotton spinning device as it has already been sold to weaving villages in Laos and Myanmar and also at the Queen Sirikit Department of Sericulture.

Conclusion

The goal of this project was to identify the causes in the lost popularity of *Paa Sin Dteen Jok* traditional production process in Haad Siew subdistrict, Sukhothai province and to determine promotional methods that would contribute on increasing the appreciation of the general public towards traditionally handcrafted *Paa Sin Dteen Jok*.

To summarize our project, we have understood that the awareness on the production process of Thai textiles can positively affect the demand, and so we intended to increase the awareness by delivering essential information to the public. To do so, promotional methods were then identified. Postcards and bookmarks were found to be effective. But increasing the demand alone would not matter if there is no supply. We then clarified the issue of the traditional production process and found out that the cotton spinning is the most problematic step. We then conducted researches for the possible development in this step. We then came up with a facilitating device to substitute traditional problematic device. Lastly, the recommendations made by the team are

potential approaches that could lead to an increased public's awareness, appreciation and therefore the popularity of the Thai textiles, *Paa Sin Dteen Jok*.

If these recommendations along with other approaches from various organization are accomplished and the appreciation of the public for the handcrafted *Paa Sin Dteen jok* is raised, the demand is then likely to increase as well. Thus, the locals would then have higher incentive and would value their skills to produce these handcrafted textiles. With a substantial increase in the production of these handcrafted textiles, the demand from the market would be satisfied. Most importantly, there would be more money circulation in and out of the local economy resulting in its stimulation. In conclusion, from this, not only the handcraft production process of *Paa Sin Dteen Jok* can be sustainably preserved but the local economy system can also be sustainably kept alive as well.

Recommendations

Based on our researched information and findings, we formed a list of recommendations which was divided according to the recipients whom we have determined could most effectively and conveniently implement our suggested recommendations.

Recommendation for the Sukhothai College of Dramatic Art

The following recommendations are potential ideas and strategies for our sponsor, the Sukhothai College of Dramatic Art, that could aid in the preservation of *Paa Sin Dteen Jok*.

1. Arranging field trips for college students to visit the Haad Siew Weaving Center

The team would like to recommend the Sukhothai College of Dramatic Art to arrange a field trip to the Haad Siew Weaving Center. This would allow the students an opportunity to observe the actual production process and perhaps get a chance for a hands-on experience. If this approach was implemented, it is likely that once the new generations become appreciative for the handcrafted *Paa Sin Dteen Jok*, they would cherish and treasure the culture more. The understanding of the actual production process of *Paa Sin Dteen Jok* will allow the artists to express their dance moves in the *Paa Sin Dteen Jok* Dance developed by the Sukhothai College of Dramatic Art in a more realistic way and with appreciation.

2. Collaboration of the sponsor with the Sukhothai Technical College on the development of alternative facilitating devices

The team analyzed that innovatively developed models of the equipment used in the production process could be an alternative way to solve this problem. As the Sukhothai Technical College already has expertise in the relevant fields, the sponsor could ask for their assistance to develop facilitating devices to relieve the problematic traditional process. Both could work together even if they specialize in different fields as

the College of Art could provide necessary specification and designs while the Technical College could handle the technicality aspect of developing the device. The advantage from this is that developing the device internally would provide bargain alternatives to the local textiles producers instead of buying it from external sources.

3. Launching campaign for the use of *Paa Sin Dteen Jok*

Our research indicated that many institutions in Thailand have established campaigns to effectively stimulate the use of Thai textiles to the new generations. The campaign was meant to encourage the public to wear Thai *Paa Sin* on every Buddhist holy days. We recommend that our sponsor could encourage every educational institution in the province to join the campaign. This would allow new generations to become familiarized with the traditional textiles and may, in the end, lead to the appreciation for this heritage culture.

Recommendation for the Haad Siew Weaving Center in Sukhothai

1. Launching *Paa Sin Dteen Jok* learning centers in the city of Sukhothai

The current Weaving Center in Sukhothai province is located by quite a large distance away from Sukhothai city, so the team would like to encourage the Haad Siew Weaving Center to set up a new center at tourist attractions like the Sukhothai Historical Park in Amphoe Muang Sukhothai in order to make it more accessible to tourists as well as locals.

2. Utilizing facilitating device(s)

The team had conducted research on several facilitating devices. The potential facilitating device the team has found and would like to suggest is the cotton spinning device, ‘Medleri Charka’. On the other hand, the Weaving Center could seek assistance from the Sukhothai Technical College to develop more labor saving devices according to the needs. Utilization of this device would allow the local artisans to perform the procedures with better posture and higher productivity. In turn, these utilities could encourage more apprentices to pursue the tradition.

Recommendation for the relevant authorities

Examples of the authorities that we aim to recommend are the government, provincial administration or certain governmental departments that is associated with traditional culture and arts.

1. Initiation of a certifying standard of quality for cotton weaving products

Our research has found that better reputation can be achieved from the awards received from the government such as a certifying standard of quality. If the similar quality standard can be established for the Thai cotton textiles industry, the producers

will be able to build reputation and trust from the public faster. Thus, the demand towards Thai cotton textiles such as *Paa Sin Dteen Jok* can then be stimulated more effectively.

2. Establishment of a “Dteen Jok Haad Siew Day” campaign

Our research has indicated the success of annual exhibitions promoting particular products, such as, Dteen Jok Mae Cham Festival in Chiang Mai. Likewise, the Sukhothai provincial government could adopt this idea to their own domain in order to promote both their province and their product, *Paa Sin Dteen Jok* of Haad Siew. Initially, the provincial government could start with promoting their residents to wear *Paa Sin Dteen Jok* on a certain day once a week to promote community cultural heritage.

3. Stimulation of the cotton cultivation in Sukhothai province

Another major findings was that no cotton flowers, the raw materials in *Paa Sin Dteen Jok* production, available within the area. Consequently, artisans have to purchase ready-made cotton yarn from manufacturers. Our research has found that a non-profit program called ‘The Royal Silk’ has successfully stimulated cultivation in the silk industry. We would like to suggest the relevant authorities to adopt this concept and apply it to the Thai cotton textiles industry.

4. Provision of informative archives on *Paa Sin Dteen Jok* through online media

Results and analysis from surveys conducted by the team illustrated that a relationship exists as once one is aware of the production process, one will perceive the value and would then have more desire for the handcrafted textiles. In response to this, we would like to suggest the relevant authorities to make use of online media that could reach wide range of audiences without geographical barriers, such as the internet, to stimulate the demand and awareness of the *Paa Sin Dteen Jok*.

5. Distribution of the suggested printing media; postcards and bookmarks

Through both primary and secondary research, the team concluded that functional printing media with short messages particularly brochures and postcards are more likely to capture the interests of the public. The team has designed prototype further shown in the report where it could be distributed to information kiosks or ticket stalls at different tourist attractions, hotels, and restaurants in Sukhothai to continuously and repetitively accentuate the presence of such traditional textiles.

Executive Summary (รายงานฉบับย่อ)

ตำบลหาดเสี้ยว อำเภอศรีสขนาลัย จังหวัดสุโขทัย เป็นเมืองที่เต็มไปด้วยศิลปวัฒนธรรม ที่มีเอกลักษณ์เฉพาะตัว และมีประวัติศาสตร์อันยาวนาน ชาวบ้านส่วนมากเป็นชาวไทพวนที่ย้ายถิ่นฐานมาจากเมืองพวน ประเทศลาว ตั้งแต่รัชสมัยพระบาทสมเด็จพระนั่งเกล้าเจ้าอยู่หัว โดยได้นำศิลปวัฒนธรรมดั้งเดิมติดตัวมาด้วย หนึ่งในนั้นคือการทอผ้าชิ้นตีนจก ซึ่งเป็นผ้าถุงประกอบด้วย **หัวชิ้น** เป็นส่วนเอวของผู้นั่ง มีความกว้างประมาณ ๑ คืบ โดยมากมักจะเป็นผ้าพื้นสีขาว แดง หรือน้ำตาล **ตัวชิ้น** ที่ทอแบบผ้าพื้น และ **ตีนชิ้น** ซึ่งเป็นเอกลักษณ์ของผ้าชิ้นตีนจกหาดเสี้ยวด้วยลวดลายที่เกิดจากเทคนิคการทอที่เรียกว่า จก ด้วยชนเม่นเป็นลวดลายอันวิจิตร

ในปัจจุบันผู้ทอผ้าชิ้นตีนจกหาดเสี้ยวมีจำนวนลดน้อยลง เนื่องจากผ้าชิ้นตีนจกมีราคาต่ำไม่คุ้มค่าต่อเวลาที่ใช้ในการผลิตแต่ละผืน เป็นสาเหตุมาจากการที่ผู้ทอไม่ให้ความสำคัญกับฝีมือแรงงานของตนเอง และตั้งราคาขายโดยคำนึงเพียงแค่ว่าราคาของวัตถุดิบที่ใช้แต่เพียงอย่างเดียว การตั้งราคาขายที่ต่ำมีส่วนในการลดแรงจูงใจของคนรุ่นใหม่ที่จะหันมาสืบทอดศิลปหัตถกรรมการทอผ้าชิ้นตีนจก ประกอบกับยังมีการแพร่หลายของอุตสาหกรรมสิ่งทอ ที่มีความสามารถในการผลิตผ้าชิ้นตีนจก โดยใช้เส้นใยสังเคราะห์และเครื่องทออัตโนมัติในการผลิต ซึ่งผู้บริโภคก็ให้ความสนใจ เนื่องจากสินค้าที่ผลิตด้วยเทคโนโลยีดังกล่าว เป็นสินค้าที่มีราคาต่ำ การที่มีสินค้าผลิตจากโรงงานมาตีตลาดสินค้าพื้นเมืองของชาวบ้านได้ส่งผล ให้ระบบเศรษฐกิจภายในชุมชนเสียหายเป็นอย่างมาก อีกทั้งยังส่งผลในระยะยาวแก่การทอผ้าชิ้นตีนจกด้วยกรรมวิธีแบบดั้งเดิมที่จะสูญหายไปในท้ายที่สุด

วิธีดำเนินงาน

โครงการนี้มีจุดหมายที่จะเสนอแนวทางแก้ปัญหาที่ทางคณะผู้วิจัยได้ระบุไว้ข้างต้น คือ การเพิ่มมูลค่าของสินค้า โดยการใช้ความเป็นสินค้าทำมือ ๑๐๐% เพื่อที่จะเจาะตลาดผู้บริโภคระดับบน ทั้งนี้เพื่อให้บรรลุจุดมุ่งหมายของโครงการ คณะผู้วิจัยจึงมีวัตถุประสงค์ดังต่อไปนี้

๑. เพื่อทำความเข้าใจต่อมุมมองของบุคคลทั่วไปที่มีต่อผลิตภัณฑ์สิ่งทอที่ทำด้วยมือ ๑๐๐%
๒. เพื่อหากกลยุทธ์จูงใจผู้บริโภคทั่วไปให้หันมาซื้อผ้าชิ้นตีนจกที่ทำมือ ๑๐๐%
๓. เพื่อวิเคราะห์ปัญหาและอุปสรรคของกระบวนการผลิตผ้าชิ้นตีนจกด้วยวิธีการดั้งเดิมในตำบลหาดเสี้ยว จังหวัดสุโขทัย
๔. เพื่อเสนอวิธีพัฒนาระบบการผลิตผ้าชิ้นตีนจก

แนวทางการดำเนินงานของคณะผู้วิจัยเพื่อให้บรรลุผลสำเร็จตามเป้าหมายที่กำหนดไว้มีดังต่อไปนี้

๑. การแจกแบบสอบถามทั้งในรูปแบบเอกสารและสื่อออนไลน์เพื่อให้ทราบถึงมุมมองของบุคคลทั่วไปที่มีต่อผลิตภัณฑ์สิ่งทอที่ทำมือ ๑๐๐% โดยคณะผู้วิจัยได้ทำการสำรวจในหลายพื้นที่เพื่อให้ทราบ ถึงความคิดเห็นของกลุ่มตัวอย่างที่หลากหลาย ซึ่งสถานที่ดังกล่าวได้แก่ ศูนย์การค้าดิโอลด์สยามพลาซ่า ห้างสรรพสินค้ามาบุญครอง ตลาดนัดจตุจักร และ ศูนย์การค้าจามจุรีสแควร์
๒. ค้นหาริธีการที่จะสามารถเพิ่มความสนใจเกี่ยวกับผ้าชิ้นตีนจกทำมือ ๑๐๐% แก่บุคคลทั่วไป โดยหลังจากการค้นคว้าข้อมูลทางอินเทอร์เน็ต คณะผู้วิจัยได้พบว่า โบรชัวร์ เป็นสื่อสิ่งพิมพ์ที่ดีต่อการประชาสัมพันธ์ จากนั้นทางคณะผู้วิจัยจึงได้ทำการวิเคราะห์สภาพแวดล้อมและศักยภาพ (SWOT Analysis) ของโบรชัวร์ และพบว่าโบรชัวร์ ไม่ได้รับความสนใจจากบุคคลทั่วไปเท่าที่ควร คณะผู้วิจัยจึงจัดทำแบบสำรวจออนไลน์ เพื่อที่จะหาว่าสื่อสิ่งพิมพ์ชนิดใดที่บุคคลทั่วไปให้ความสนใจมากที่สุด โดยพบว่า บุคคลส่วนมากให้ความสนใจกับที่คั่นหนังสือและโปสการ์ด
๓. การสัมภาษณ์ผู้ทอผ้าชิ้นตีนจกในตำบลหาดเสี้ยว จังหวัดสุโขทัย เพื่อหาปัญหาและอุปสรรคที่ส่ง ผลต่อกระบวนการผลิตผ้าชิ้นตีนจกด้วยวิธีการดั้งเดิม
๔. ค้นหาข้อมูลทางอินเทอร์เน็ตเกี่ยวกับเครื่องมือทางเลือกหรืออุปกรณ์ที่สามารถนำมาช่วยในกระบวนการผลิตผ้าชิ้นตีนจก และติดต่อกับผู้ที่มีส่วนร่วมในการพัฒนาและผลิตเครื่องมือเพื่อที่จะทราบถึงข้อดีข้อเสียของเครื่องมือดังกล่าว

ผลและการวิเคราะห์ผล

วัตถุประสงค์ที่ ๑: เพื่อทำความเข้าใจมุมมองและการเล็งเห็นคุณค่าของบุคคลทั่วไปที่มีต่อ ผลิตภัณฑ์สิ่งทอที่ทำด้วยมือ ๑๐๐%

คำถามของการวิจัย ๑: ผ้าไทยพื้นเมืองเป็นที่นิยมในสังคมหรือไม่ และปัจจัยทางด้านประชากรศาสตร์ใดที่มีอิทธิพลต่อความต้องการผ้าไทยพื้นเมือง

ผลการวิเคราะห์ข้อมูลจากผู้ตอบแบบสอบถามจำนวน ๕๘๒ คน พบว่าร้อยละ ๖๖ ของกลุ่มตัวอย่างในทุกช่วงอายุเคยซื้อผ้าไทยพื้นเมือง อีกทั้งจากผลสำรวจพบว่ากลุ่มตัวอย่างที่มีอายุตั้งแต่ ๓๕ ปี เป็นต้นไป มีความต้องการซื้อผ้าไทยมากกว่ากลุ่มตัวอย่างที่มีอายุน้อย และประชากรในกลุ่มตัวอย่างที่มีรายได้มากกว่า ๒๐,๐๐๐ บาท มีแนวโน้มที่จะซื้อผ้าไทยพื้นเมืองมากกว่า ประชากรในกลุ่มตัวอย่างที่มีรายได้ได้น้อย จากข้อมูลข้างต้นทำให้เราทราบว่าปัจจัยที่มีผลต่อความต้องการซื้อผ้าไทยคืออายุและเงินเดือนของผู้ซื้อ เนื่องด้วยผ้าไทยมีราคาที่ค่อนข้างสูงและน้อยคนนักที่สวมใส่ผ้าไทยในชีวิตประจำวัน

คำถามของการวิจัย ๒: ประชากรในกลุ่มตัวอย่างทราบถึงกระบวนการผลิตดั้งเดิมของผ้าไทยหรือไม่ และประชากรเหล่านั้นสามารถจำแนกความแตกต่างของเส้นใยฝ้ายได้หรือไม่

ผลการวิเคราะห์ข้อมูลจากแบบสอบถามพบว่าร้อยละ ๔๗ ของกลุ่มตัวอย่างไม่ทราบถึงกระบวนการผลิตผ้าไทยแบบดั้งเดิม และ ร้อยละ ๕๘ ของกลุ่มตัวอย่างไม่สามารถจำแนกความแตกต่างระหว่างเส้นใยฝ้ายปั่นมือและฝ้ายสำเร็จรูปจากโรงงานได้ จากข้อมูลดังกล่าวทำให้สามารถสรุปได้ว่า รวบรวมหนึ่งของกลุ่มตัวอย่างไม่ทราบถึงความซับซ้อนของกระบวนการผลิตและ ไม่สามารถจำแนกความแตกต่างของเส้นใยฝ้ายได้

คำถามของการวิจัย ๓: ประชากรในกลุ่มตัวอย่างมีการตระหนักถึงคุณค่าของผ้าไทยพื้นเมืองทำมือ ๑๐๐% หรือไม่

จากผลการวิเคราะห์ข้อมูลพบว่าร้อยละ ๘๗ ของประชากรในกลุ่มตัวอย่างตระหนักถึงคุณค่าของผ้าไทยพื้นเมืองทำมือ ๑๐๐% โดยประชากรเหล่านั้นเลือกที่จะซื้อผ้าฝ้ายที่ผ่านกระบวนการทำมือทุกขั้นตอนมากกว่าผ้าฝ้ายที่ผลิตจากโรงงาน อีกทั้งร้อยละ ๘๖ ของประชากรในกลุ่มตัวอย่างยังมีความประสงค์ที่จะจ่ายเงินเพิ่มขึ้น ๒ เท่า สำหรับผ้าไทยพื้นเมืองทำมือ ๑๐๐% อีกด้วย

คำถามของการวิจัย ๔: การทราบถึงกระบวนการผลิตผ้าไทยพื้นเมืองส่งผลต่อการตัดสินใจซื้อผ้าไทยพื้น เมืองหรือไม่

จากผลการวิเคราะห์ข้อมูลพบว่าร้อยละ ๘๙ ของประชากรในกลุ่มตัวอย่างที่ทราบถึงกระบวนการผลิตผ้าไทยพื้นเมือง มีความประสงค์ที่จะซื้อผ้าไทยพื้นเมืองมากกว่ากลุ่มตัวอย่างที่ไม่ทราบกระบวนการผลิต อีกทั้งประชากรเหล่านั้นมีความประสงค์ที่จะจ่ายในราคาที่สูงขึ้น

จากการวิจัยพบว่า ส่วนแบ่งทางการตลาดของผ้าขึ้นตินจกสามารถขยายเพิ่มขึ้นได้และประชาชนทั่วไปตระหนักถึงกระบวนการผลิตผ้าไทยพื้นเมือง ส่งผลกระทบในทางบวกต่อความพึงพอใจในการเลือกซื้อผ้าไทยพื้นเมืองทำมือ ๑๐๐%

ดังนั้นคณะผู้วิจัยจึงมีวัตถุประสงค์ที่จะหากกลยุทธ์ เพื่อส่งผ่านข้อมูลเกี่ยวกับกระบวนการผลิตแบบดั้งเดิมและข้อเท็จจริงต่างๆ ของผ้าขึ้นตินจกให้แก่ประชาชน โดยข้อมูลดังกล่าวจะนำมาซึ่งแรงจูงใจและแรงกระตุ้นต่อผู้บริโภค ให้เกิดความชื่นชมและความพึงพอใจที่มีต่อผ้าไทยพื้นเมืองทำมือ ๑๐๐% ซึ่งจะไปสู่การพัฒนาฟื้นฟูเศรษฐกิจ สังคม และศิลปวัฒนธรรมของชุมชนให้ชาวบ้านได้มีวิถีชีวิตความเป็นอยู่ที่ดีขึ้น

วัตถุประสงค์ที่ ๒: เพื่อหากลยุทธ์ในการจูงใจผู้บริโภคทั่วไปให้หันมาซื้อผ้าชิ้นดินจกทำมือ ๑๐๐%

คำถามของการวิจัย ๕: ประชากรในกลุ่มตัวอย่างมีความสนใจต่อสื่อสิ่งพิมพ์ แผ่นพับ โปสเตอร์ ที่คั่นหนังสือหรือไม่ และความยาวของข้อความในสื่อสิ่งพิมพ์ส่งผลกระทบต่อความสนใจของผู้อ่านหรือไม่

ผลการวิเคราะห์ข้อมูลจากผู้ตอบแบบสอบถามออนไลน์ทั้งหมดจำนวน ๓๐ คน พบว่าร้อยละ ๑๓ ของกลุ่มตัวอย่าง ให้ความสนใจกับแผ่นพับ และร้อยละ ๖๗ ของกลุ่มตัวอย่างให้ความสนใจกับโปสเตอร์และที่คั่นหนังสือ สามารถสรุปได้ว่าประชากรในกลุ่มตัวอย่างให้ความสนใจกับโปสเตอร์และที่คั่นหนังสือมากกว่าแผ่นพับ นอกจากนี้ยังพบอีกว่า ความยาวของข้อความในสื่อสิ่งพิมพ์เป็นอีกปัจจัยที่ส่งผลกระทบต่อความสนใจของผู้อ่าน

วัตถุประสงค์ที่ ๓: เพื่อวิเคราะห์ถึงปัญหาและอุปสรรคของกระบวนการผลิตผ้าชิ้นดินจกด้วยวิธีการดั้งเดิม ในตำบลหาดเสี้ยว จังหวัดสุโขทัย

คณะผู้วิจัยพบว่าตลอดทั้งกระบวนการผลิตผ้าชิ้นดินจก ขั้นตอนการเตรียมเส้นใย หรือ การปั่นฝ้าย (เช่นฝ้าย) เป็นขั้นตอนที่มีปัญหามากที่สุด นอกเหนือจากความยากลำบากและความซับซ้อนของการขึ้นฝ้ายแล้ว ผู้ขึ้นฝ้ายยังได้รับผลกระทบทางด้านสุขภาพอีกด้วย เนื่องจากเครื่องปั่นฝ้ายออกแบบมาเพื่อให้ทำงานบนพื้น การขึ้นฝ้ายเป็นขั้นตอนที่ใช้ระยะเวลาอันยาวนานทั้งยังไม่มีเครื่องรองรับแผ่นหลัง การใช้เท้าเพียงข้างเดียวในการยึดที่ปั่นระหว่างปั่นเส้นใยหรือการใช้มือหนึ่งข้างในการหมุนวงล้อและอีกข้างในการดึงเส้นใย ทำให้ต้องนั่งทำงานในอิริยาบถที่ไม่เหมาะสมต่อสรีระด้วยเหตุนี้ คณะผู้วิจัยจึงสืบค้นหาเครื่องมือทางเลือกที่ช่วยให้ผู้ปั่นฝ้ายให้สามารถปั่นฝ้ายได้ด้วยศักยภาพที่สูงขึ้นและมีอิริยาบถในการทำงานที่เหมาะสมต่อสรีระยิ่งขึ้น

วัตถุประสงค์ที่ ๔: เพื่อสืบค้นวิธีการที่จะช่วยพัฒนากระบวนการผลิตผ้าชิ้นดินจก

จากการค้นคว้าข้อมูลจากแหล่งข้อมูลทุติยภูมิและการสัมภาษณ์ผู้เชี่ยวชาญจากมหาวิทยาลัยเชียงใหม่ ทำให้ได้ทราบถึงเครื่องมือที่สามารถนำมาช่วยลดปัญหาเกิดขึ้นในขั้นตอนการปั่นฝ้าย ที่ชื่อว่า 'เมเดลรี จักรร' ซึ่งทางมหาวิทยาลัยเชียงใหม่ได้มีส่วนช่วยในการพัฒนา ทั้งนี้เครื่องมือดังกล่าวได้มีการวางจำหน่าย โดยกรมหมอนไหม

บทสรุป

จากผลการศึกษา คณะผู้วิจัยได้วิเคราะห์ถึงต้นเหตุของการสูญหายไปของผ้าชิ้นดินจกหาดเสี้ยว และได้พบว่าการทอผ้าชิ้นดินจกหาดเสี้ยวด้วยกระบวนการดั้งเดิมมีจำนวนลดน้อยลง สืบเนื่องมาจากผ้าชิ้นดินจกมีราคาต่ำซึ่งมีอิทธิพลมาจาก ๒ ปัจจัย คือผู้ทอส่วนใหญ่ไม่เห็นค่าความสำคัญของการทอและแรงงานของตนเอง อีกทั้งการเข้ามาแทรกแซงของอุตสาหกรรมสิ่งทอที่มีเทคโนโลยีทันสมัยในการผลิตผ้าทอ ซึ่งทำให้ได้ผลผลิตเพิ่มมากขึ้นและมีราคาที่ต่ำลง ดังนั้นคนรุ่นใหม่จึงไม่นิยมเลือกการทอผ้าชิ้นดินจกเป็นอาชีพแล้วหันไปประกอบอาชีพอื่นแทน นอกจากนี้ทาง

คณะผู้วิจัยได้สืบค้นวิธีการพัฒนากระบวนการผลิตผ้าชิ้นตีนจกด้วยวิธีการดั้งเดิม อีกทั้งได้เสนอแนะวิธีที่สามารถกระตุ้นให้คนทั่วไปตระหนักถึงคุณ ค่าของผ้าชิ้นตีนจก ซึ่งจะนำไปสู่การพัฒนาและฟื้นฟูเศรษฐกิจ สังคม และศิลปวัฒนธรรมของชุมชน ให้ชาวบ้านได้มีวิถีชีวิตความเป็นอยู่ที่ดีขึ้น คณะผู้วิจัยจึงจัดทำข้อเสนอแนะเพื่อแก้ปัญหาการเสื่อมความนิยมของผ้าชิ้นตีนจกขึ้น

ข้อเสนอแนะ

จากการค้นคว้าข้อมูลและสรุปผลการวิจัย คณะผู้วิจัยมีข้อเสนอแนะ สำหรับวิทยาลัยนาฏศิลปสุโขทัย ศูนย์หัตถกรรมพื้นบ้านโบราณหาดเสี้ยว และหน่วยงานอื่นที่เกี่ยวข้อง ดังต่อไปนี้

ข้อเสนอแนะสำหรับวิทยาลัยนาฏศิลปสุโขทัย

ข้อเสนอแนะดังต่อไปนี้เป็นแนวคิดและแผนการดำเนินงานที่ทางคณะผู้วิจัยมีความประสงค์ที่จะร่วมเป็นส่วนหนึ่งในการอนุรักษ์ผ้าชิ้นตีนจก

๑. การจัดทัศนศึกษาเพื่อเยี่ยมชมศูนย์หัตถกรรมพื้นบ้านโบราณหาดเสี้ยวให้นักศึกษา

การจัดทัศนศึกษามีวัตถุประสงค์เพื่อส่งเสริมเด็กและ เยาวชนให้หันมาสนใจและ เห็นคุณค่าของประเพณีและวัฒนธรรมไทยมากขึ้น ซึ่งการจัดทัศนศึกษาดังกล่าวจะมีการนำนักศึกษาไปชมกระบวนการผลิตผ้าชิ้นตีนจกแบบดั้งเดิมและ ให้นักศึกษาได้มีโอกาสได้ลองปฏิบัติงานด้วยตนเองให้ครบทั้งกระบวนการอีกด้วย นอกจากนี้การที่นักศึกษาที่เป็นผู้แสดงในชุดการแสดงนาฏศิลป์ที่ถ่ายทอดถึงกระบวนการผลิตผ้าชิ้นตีนจกของทางวิทยาลัยนาฏศิลปสุโขทัยได้ไปทัศนศึกษา ก็จะทำให้มีความรู้ความเข้าใจเกี่ยวกับการแสดงนั้นๆ มากขึ้นไปอีก

๒. จัดให้มีการร่วมมือกันระหว่างวิทยาลัยนาฏศิลปสุโขทัยและ วิทยาลัยเทคนิคสุโขทัย ในการจัดทำโครงการเพื่อพัฒนาเครื่องมือทางเลือกมาทดแทนในกระบวนการผลิตของผ้าชิ้นตีนจก

จากที่คณะผู้วิจัยได้ทำการวิเคราะห์ข้อมูลทำให้ทราบว่าวิธีการหนึ่งที่จะช่วยแก้ปัญหาในด้านการบวนการผลิตของผ้าชิ้นตีนจกนั้นก็คือการนำเครื่องมือทุนแรงต่างๆ มาใช้ทางคณะผู้วิจัยจึงอยากเสนอแนะให้ทางวิทยาลัยนาฏศิลปสุโขทัยร่วมมือกับทางวิทยาลัยเทคนิคสุโขทัย เนื่องด้วยทั้ง ๒ วิทยาลัยดังกล่าวมีความเชี่ยวชาญที่แตกต่างกัน ซึ่งทางวิทยาลัยนาฏศิลปสุโขทัย มีความรู้ความเชี่ยวชาญเกี่ยวกับผ้าชิ้นตีนจกจึงทำให้ทราบถึงในขั้นตอนการผลิตใดที่มีความยากเป็นพิเศษ และต้องการเครื่องมือทุนแรงเข้ามาช่วย ส่วนทางวิทยาลัยเทคนิคสุโขทัยนั้นมีความเชี่ยวชาญในการประดิษฐ์อุปกรณ์เครื่องใช้ต่างๆ ซึ่งถ้าหาก ทางวิทยาลัยเทคนิคสุโขทัยนั้นสามารถผลิตเครื่องมือที่ใช้ช่วยในการผลิตของผ้าชิ้นตีนจกได้ ก็จะสามารถให้ผู้ห่อที่ประสบปัญหานั้นได้รับเครื่องมือที่มีราคาต่ำกว่าทางห้องตลาด

๓. การรณรงค์และสนับสนุนแนวคิดส่งเสริมให้สวมใส่ผ้าขึ้นตีนจก

เพื่อเป็นการฟื้นฟูวัฒนธรรมประเพณีของไทย ทางคณะผู้วิจัยจึงเสนอแนะวิทยาลัยนาฏศิลป์สุโขทัย ให้มีการรณรงค์และส่งเสริมให้นักศึกษาและอาจารย์สวมใส่ผ้าขึ้นตีนจกโดยได้กำหนดให้สวมใส่ในทุกๆวันศุกร์ เพื่อเป็นแบบอย่างของการแสดงถึงเอกลักษณ์ไทย ซึ่งการรณรงค์นี้ มีวัตถุประสงค์เพื่อนุรักษ์สมบัติทางวัฒนธรรมและส่งเสริมภูมิปัญญาพื้นบ้าน รวมถึงความคิดสร้างสรรค์และหัตถศิลป์ของไทย นอกจากนี้ยังเสนอแนะให้วิทยาลัยนาฏศิลป์สุโขทัย ส่งเสริมและสนับสนุนให้นักเรียนนักศึกษาใส่ผ้าขึ้นตีนจกในวันสำคัญทางพุทธศาสนา และขอความร่วมมือจากสถาบันการศึกษาหรือองค์กรอื่นๆ ในจังหวัดสุโขทัยให้หันมาร่วมมือกันในการรณรงค์ด้วยก็จะช่วยให้สามารถทำให้ประสบความสำเร็จในการรณรงค์มากยิ่งขึ้น

ข้อเสนอแนะสำหรับศูนย์หัตถกรรมพื้นบ้านโบราณหาดเสี้ยว

๑. เปิดศูนย์การเรียนรู้ผ้าขึ้นตีนจกเพิ่มเติม ภายในตัวเมืองสุโขทัย

เนื่องมาจากการทำแบบสอบถามทำให้คณะผู้วิจัยทราบว่า หากประชาชนมีความรู้เกี่ยวกับขั้นตอนการผลิตผ้าขึ้นตีนจกสามารถส่งผลต่อการเลือกซื้อสินค้าผ้าขึ้นตีนจกได้ ทางคณะผู้วิจัยจึงอยากเสนอแนะให้มีการเปิดศูนย์การเรียนรู้ผ้าขึ้นตีนจกเพิ่มเติมภายในตัวเมืองสุโขทัย เพื่อให้กลุ่มนักท่องเที่ยวสามารถทำความรู้จักคุ้นเคย และเข้าใจเกี่ยวกับผ้าขึ้นตีนจกมากขึ้น เนื่องจากศูนย์การเรียนรู้ในปัจจุบันนั้นตั้งอยู่ที่อำเภอศรีสัชชนาลัย ซึ่งไกลจากจากตัวเมืองสุโขทัยและยากต่อการเดินทางของนักท่องเที่ยว โดยเฉพาะนักท่องเที่ยวชาวต่างชาติ

๒. การนำอุปกรณ์/เครื่องมือทุนแรงมาปรับใช้เพื่ออำนวยความสะดวกในกระบวนการผลิต

คณะผู้วิจัยได้ทำการเก็บรวบรวมข้อมูลการวิจัยเกี่ยวกับอุปกรณ์อำนวยความสะดวกต่างๆ และพบว่าอุปกรณ์ที่จะช่วยอำนวยความสะดวกได้อย่างมีประสิทธิภาพในขั้นตอนการขึ้นฝ้าย คือ เครื่องเมเดลรีจกร่า ซึ่งเครื่องมือดังกล่าวช่วยให้ผู้ทอในท้องถิ่นสามารถขึ้นฝ้ายได้ง่ายขึ้นและที่สำคัญคือ ผู้ทอได้นั่งทำงานในอิริยาบถที่เหมาะสม ซึ่งทำให้ไม่มีปัญหาทางด้านสุขภาพในภายหลัง

ข้อเสนอแนะสำหรับหน่วยงานที่เกี่ยวข้อง

ตัวอย่างของหน่วยงานที่ทางคณะผู้วิจัยต้องการเสนอแนะ ได้แก่ รัฐบาล องค์การบริหารส่วนจังหวัด หรือ หน่วยงานราชการ ด้านศิลปวัฒนธรรม

๑. สร้างเครื่องหมายรับรองคุณภาพผลิตภัณฑ์สำหรับผ้าฝ้ายไทย

จากการค้นคว้าข้อมูล คณะผู้วิจัยพบว่าผ้าไหมไทยมีเครื่องหมายการรับรองคุณภาพสินค้าด้วย 'ตรานกยูงพระราชทาน' ซึ่งทำให้สินค้านั้นได้มาตรฐานและมีราคาที่สูงขึ้นตามเกณฑ์ของตรานกยูงแต่ละชนิด ดังนั้นทางคณะผู้วิจัยจึงเห็นสมควรว่าหากมีเครื่องหมายรับรองคุณภาพของผ้าฝ้ายไทย ก็อาจจะทำให้สามารถสร้างพื้นฐานราคาของผ้าฝ้ายไทยได้ อีกทั้งผู้ผลิตก็จะได้รับความไว้วางใจจากผู้บริโภคมากขึ้นอีกด้วย

๒. การจัดทำมี 'งานวันผ้าขึ้นต้นจกหาดเสี้ยว จังหวัดสุโขทัย'

เพื่อเป็นการส่งเสริมให้สังคมได้รู้จักผลิตภัณฑ์ผ้าขึ้นต้นจกหาดเสี้ยวได้ดียิ่งขึ้นแต่การที่จะจัดงานในลักษณะเช่นนี้ จำเป็นต้องได้รับความร่วมมือจากภาครัฐงานประเภทดังกล่าวเราสามารถเห็นตัวอย่างได้จากงาน 'วันต้นจกแม่แจ่มของจังหวัดเชียงใหม่' ซึ่งมีความโด่งดังเป็นอย่างมาก

๓. ส่งเสริมการปลูกไผ่ในจังหวัดสุโขทัย

จากการสัมภาษณ์คุณรวิวรรณ ขนาดนิต ผู้จัดการกลุ่มศูนย์หัตถกรรมพื้นบ้านโบราณหาดเสี้ยว (สุนทรีย์ผ้าไทย) และคุณวิทวัส เกตุใหม่ เจ้าหน้าที่ฝ่ายกิจกรรมของพิพิธภัณฑสถานผ้าในสมเด็จพระนางเจ้าสิริกิติ์ พระบรมราชินีนาถ พบว่า ปัจจุบันประเทศไทยนั้นขาดแคลนดอกไผ่ซึ่งเป็นวัตถุดิบหลักในการใช้ผลิตผ้าขึ้นต้นจก ด้วยเหตุนี้ผู้ทอจึงเลือกที่จะซื้อเส้นใยไผ่สำเร็จรูปจากโรงงานแทน อย่างไรก็ตาม จากผลการสำรวจยังพบอีกว่า ในประเทศไทยนั้นมีโครงการหนึ่งที่ไม่แสวงหาผลกำไรคือ โครงการไหมหลวง ซึ่งประสบความสำเร็จอย่างมากในการกระตุ้นชาวบ้านให้หันมาปลูกไหมเพื่อนำไปใช้ในการผลิตสินค้าต่างๆ ดังนั้นคณะผู้วิจัยจึงมีความประสงค์ที่จะเสนอแนะหน่วยงานที่เกี่ยวข้องให้หันมาส่งเสริมการปลูกต้นไผ่ในจังหวัดสุโขทัย

๔. จัดทำข้อมูลเกี่ยวกับผ้าขึ้นต้นจกผ่านสื่อออนไลน์

จากการทำแบบสอบถาม ทางคณะผู้วิจัยพบว่า หากเราสามารถทำให้ผู้ซื้อตระหนักถึงความยากลำบากของกระบวนการทอผ้าไทย จะเป็นปัจจัยหนึ่งที่ทำให้ผู้ซื้อเกิดความสนใจที่จะใช้ผ้าไทยมากขึ้น และในปัจจุบันนี้ เป็นที่ทราบกันดีแล้วว่า สื่อออนไลน์มีผลกระทบในโลกของการตลาดและธุรกิจเป็นอย่างมาก ดังนั้นเราจึงอยากเสนอแนะให้หน่วยงานที่เกี่ยวข้องมีการจัดทำเว็บไซต์หรือใช้เว็บไซต์ประจำจังหวัดเพื่อเป็น แหล่งเรียนรู้เกี่ยวกับผ้าขึ้นต้นจกในโลกออนไลน์ให้แก่บุคคลทั่วไป

๕. การจัดทำสื่อประชาสัมพันธ์ เช่นโปสเตอร์ และที่คั่นหนังสือ เพื่อเผยแพร่ข้อมูลความรู้ภูมิปัญญาแก่บุคคลทั่วไป

ซึ่งโปสเตอร์ที่ทางคณะผู้วิจัยได้ออกแบบไว้นั้นประกอบไปด้วยภาพและการอธิบายถึงกระบวนการผลิตของผ้าขึ้นต้นจก ส่วนที่คั่นหนังสือนั้นประกอบด้วยลวดลายอันวิจิตรของผ้าขึ้นต้นจก อีกทั้งยังมีข้อความสั้นๆ ซึ่งเป็นเกร็ดความรู้เกี่ยวกับผ้าขึ้นต้นจกอีกด้วย ทางคณะผู้วิจัยจึงอยากแนะนำให้จัดทำโปสเตอร์และที่คั่นหนังสือนี้อย่างกว้างขวาง และนำไปแจกให้กับผู้ที่เข้าชมการแสดงของวิทยาลัยนาฏศิลป์สุโขทัย ผู้ที่ทำการซื้อสินค้าผ้าขึ้นต้นจก หรือสถานที่ต่างๆ อาทิเช่น แหล่งท่องเที่ยว และโรงแรมในจังหวัดสุโขทัย เพื่อเผยแพร่ข้อมูลความรู้ภูมิปัญญาของจังหวัดสุโขทัยแก่บุคคลทั่วไป

CHAPTER 1: Introduction

Haad Siew subdistrict is located in Si Satchanalai district, Sukhothai province, Northern Thailand. The majority of the populations are *Tai Phuan*, an ethnic group originated from parts of Laos and Lanna (Haad Siew subdistrict municipality). These particular groups of people have been synonymous with weaving for centuries, and it is considered as one of the traditional cultures they have inherited from their ancestors (Mrs. Suntree, the head of Haad Siew Weaving Center, 2015). The most distinctive and renowned textiles of *Tai Phuan* in Haad Siew subdistrict is the traditional Thai textiles called '*Paa Sin Dteen Jok*' which is fabricated via traditional processes and designed according to folk wisdom techniques. The issue that has recently arisen is the decline of interest in the pursuit of this traditional heritage. The features affecting this matter comes from the various problems in arts, culture, society and economy aspects.

Nowadays, there is a declining number of local artisans in Haad Siew subdistrict who are producing *Paa Sin Dteen Jok* via the traditional production process. This comes from the microeconomic issue of the producer as the selling profit of *Paa Sin Dteen Jok* is not worthwhile for the artisans to invest their efforts in. The relatively low price of *Paa Sin Dteen Jok* is not only due to the inconsideration on the pricing of their products; as they are only evaluating the raw material costs, but also the devaluation of the artisans own time, skills and expertise. Accordingly, with the low price, the incentive of the new generations to pursue the cultural wisdom in fabricating *Paa Sin Dteen Jok* is lessened.

Furthermore, another impactful factor is the competition of the industrialized textile merchandises. Mass production of textiles allows predatory pricing which leads to the extensive price competition within the market. As the majority of the consumers contributing in the demand of the product lacks appreciation towards handcrafted goods by gearing toward cheaper industrial products instead. Consequently, not only that in the long run will the traditional cultures be abandoned, but a collapse of the local economy system may soon follow.

Aside the social and economic complications that lead to a decline of both the number of artisans and the use of traditional production process, the emergence of substitutions to the complex traditional production process also contributes to the abandonment of some procedures within the traditional production process. Artisans in Haad Siew subdistrict have found alternative means to substitute certain tradition procedures. Currently, cotton yarns, the main raw material required to produce *Paa Sin Dteen Jok* are being acquired from factories instead of being handcrafted via the traditional process. This is due to the advantage of having convenience from just purchasing the ready-made cotton yarn from factories (Ms. Raveewan, the manager of Haad Siew Weaving Center, 2015). The abandonment of certain procedures within the

traditional production process does not only result in the unavailability of the entirely handcrafted traditional *Paa Sin Dteen Jok* product but in the long run, the particular procedures will cease to exist.

Due to the mentioned complications, in 2002, Her Majesty Queen Sirikit requested relevant agencies to establish a strict quality control program for Thai silk. Her Majesty granted ‘The Royal Peacock logo’ as the certification trademark for Thai silk standards. The initial purpose of The Royal Peacock logo was the preservation of cultural and local knowledge of Thai textiles. The Royal Peacock logo has been focused on standardizing the use of specific traditional raw materials and traditional production processes that would, in the end, effectively enable the preservation of Thai's traditional folk wisdom (The Queen Sirikit Department of Sericulture, 2014). The certification trademark written on the logo encourages people to recognize the importance of silk that was made via traditional production process, for example, the Golden Peacock logo indicates that the fabric is made of hand-spun silk and guarantees that the traditional production process was conducted in the making process of the particular fabric. In addition, this in turn affects customer's purchase decision as when customers recognize the logo, their incentive to buy the products increase.

However, The Royal Peacock logo does not stimulate products in the cotton industry as it only focus on products from the silk industry. These two industries are similar to each other in which both has similar problems in that their traditional production process needed to be revitalised. Additionally, the team's sponsor, the Sukhothai College of Dramatic Arts had created performance about the traditional production process of *Paa Sin Dteen Jok*. Their goal was to deliver the value of handcrafted technique to the audiences. The limitation of this method was that the messages were only capable of being passed to a specific group of audiences and that the method was not successfully assured to be impactful in generating interest and appreciation from people. As they have always been conscious of the importance of *Paa Sin Dteen Jok*, one of the Thai's cultural identities, the Sukhothai College of Dramatic Arts requested assistance from the team.

The ultimate goal of this project was to induce the production of 100% handcrafted *Paa Sin Dteen Jok*, which could capture the attention of the upper market that has higher purchasing power. This would escalate the perceived value as well as preserve the traditional production process of *Paa Sin Dteen Jok*. In order to stimulate the production of 100% handcrafted *Paa Sin Dteen Jok*, it was our intention to identify the additional causes in the lost popularity of *Paa Sin Dteen Jok* traditional production process in Haad Siew subdistrict, Sukhothai province and to determine promotional methods that would contribute on increasing the appreciation of the general public towards traditionally handcrafted *Paa Sin Dteen Jok*. To achieve the project's goal of assisting the Sukhothai College of Dramatic Arts to revive and preserve the traditional

textile '*Paa Sin Dteen Jok*' the team have come up with four objectives which would be further detailed in the methodology section.

1. To understand public perception and appreciation of 100% handcrafted textiles
2. To recommend effective persuasion methods aim to increase public appreciation of 100% handcrafted *Paa Sin Dteen Jok*
3. To identify problems and limitations of the traditional handcrafted production process of *Paa Sin Dteen Jok*
4. To determine ways to preserve the unique handcrafted procedures of indigenous *Paa Sin Dteen Jok* within the Haad Siew community for the next generations

This project utilized interviews, surveys by questionnaire, archival research and direct observations to analyze and successfully carry out the project. Through this project, it is anticipated that the accurate findings would be useful for the recommendations of a favorable model as well as the persuasive strategy that will satisfy the sponsor's intention to preserve *Paa Sin Dteen Jok*.

CHAPTER 2: Background and Literature Review

2.1 Thai Textiles

Thailand is a country abundant with cultural heritage as it has a long history dating back to prehistoric times. Thai textile is an unique and easily distinguishable cultural art which has been popular for both the local and foreigners alike. People weave Thai textiles for many different purpose such as for performance and traditional celebrations. In the past, there was no clothing industry in Thailand, the weaving techniques were passed own in each household where children were taught by their parents. Various forms of Thai textile originated from many different parts of the country as different ethnic group form communities that exclusively retain their own weaving patterns and techniques.

Thai textiles can be grouped based on the weaving techniques as follows: *Khit* (ขีด), *Yok Din* (ยกดั้น), *Mudmee* (มัดหมี่), tapestry weave (เกาะ/ล้วง), tabby weave (ขัด), and lastly *Jok* (จก) which the project is focused on.

Khit comes from the native language of the *Isan* people, *Skit*, which means to nudge or scratch off. This is used during the weaving process where the weaver uses a stick to pick up yarns and warps into the web of tabby weave which passes from selvage to selvage. (The Bank of Thailand Museum) *Paa Khit* is made for blankets, shoulder cloths (*Sabai*) and pillows; it is mainly woven by the Lao ethnic groups in the northeastern provinces of Thailand such as Uttaradit, Surin, Sisaket, Buriram, and Nakhon Ratchasima.



Figure 2.1-1 *Paa Biang Khit* from Roi Et (*Isan club*, 2007)

Yok is a brocade weaving technique. This textile mostly made from silver or gold yarn, usually from silk, to make a continuous or discontinuous supplementary cloth. *Paa Yok Din* requires weavers who are highly-skilled due to the complicated weaving process. In the past this type of textile was worn among the royal or higher class people. Moreover, it is now made in all parts of Thailand, in the Northern provinces of LamPhun and Chiang Mai, Roi Et, Surin, and Ubon Ratchathani in the Northeast, and Nakorn Si Thammarat, Surat Thani, Pattani and Songkhla in the South.



Figure 2.1-2 *Paa Yok Din Thong* (Kunchiang5dao, 2005)

Mudmee is a rhombic patterns textiles, also called Ikat. It is the process of wrapping the yarns on the non-dyeing color region and this is done before dyeing and weaving. The yarns is needed to be dyed many times from lighter to darker colors until the design was completed, it is done before weaving process. *Paa Mudmee* is produced in almost all provinces in the northeast of Thailand; Khon Kaen, Surin, Roi Et, Burirum, and Sisaket.



Figure 2.1-3 *Paa Mudmee* from Chaiyaphum (*Isan club*, 2007)

Tapestry weave (*Paa Koh* or *Paa Luang*) is a weaving technique where the yarns are not taken from selvage to selvage, but are isolated to areas of color to create the patterns (The Bank of Thailand Museum). This weaving technique uses various colored-yarns to complete a textile piece as part of the whole cloth. These are woven like plain weave where hooks and dove-tails are used to bond the yarns tightly at junctures. Many complex and intricate patterns are created using this technique. Most of *Paa Koh* or *Paa Luang* is woven in the north of Thailand; mostly in Nan, Chiang Rai, and Phayao.



Figure 2.1-4 *Paa Koh* or *Paa Luang* from Nan
(Textile Museum Naresuan University, 2008)

Tabby weave is a basic weaving technique which is easier to study than the others. It requires only two shafts which can be the same or different colors of yarns. The colors are also important for *Paa Puen* because each color has its own meaning and is reserved for some special occasions; for example, red for silk as raw material is used on a ceremonial occasion and indigo for cotton as raw material used for working in daily life. In addition, *Paa Puen* is woven in all parts of Thailand and different area can be in many different styles.



Figure 2.1-5 *Paa Puen*: Squirrel fabric; *Sin Mai Hangkarok* from Nakhon Ratchasima
(The Bank of Thailand Museum)

The last weaving technique of traditional Thai textiles is *Jok* which the project is directed to. *Jok* weaving in Thailand is generally woven as *Dteen Jok* or in the bottom part of a cloth to connect with the main part of a cloth or *Tua Sin* and it is called *Paa Sin Dteen Jok*. More details on this particular textile are illustrated in the next section.

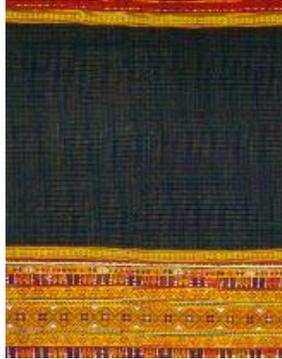


Figure 2.1-6 *Paa Sin Dteen Jok* from Sukhothai (Maejo University)

2.2 *Paa Sin Dteen Jok*

This section outlines the culture of *Tai Phuan* people, what makes *Paa Sin Dteen Jok* different from other traditional Thai textiles, the ritual difference in patterns of *Paa Sin Dteen Jok* of Haad Siew, and the traditional production process of *Paa Sin Dteen Jok*.

2.2.1 Culture of *Tai Phuan*, at Haad Siew

The *Tai Phuan* people migrated from Phuan state of Laos during the period of King Nangklao (Rama III) since 1844. They migrated out in the northern, northeast and central areas such as Nong Khai, Udon Thani, Sukhothai, Phrae, and Saraburi (Sukhothai Thammathirat Open University, 2012). *Tai Phuan* people often named their new settlements in Thailand similarly to their original village's name from Laos for example, the name of *Baan Haad Siew*, Sukhothai was brought from their own village at Muang Chiang Kwang, Laos (Sathorn Gold Textiles Museum, 2012).

Haad Siew was one of the areas that *Tai Phuan* immigrated to, located in Si Satchanalai district, Sukhothai province, Northern Thailand (Sathorn Gold Textiles Museum, 2012). Haad Siew subdistrict consist of five villages which are *Baan Haad Siew-North*, *Baan Haad Siew-South*, *Baan Haad Soong*, *Baan Mai*, *Baan Pa Phai* (Haad Siew subdistrict municipality). Most of villagers in Haad Siew are still maintaining their traditional culture, especially the traditional weaving technique to weaving the traditional Thai textiles called '*Paa Sin Dteen Jok*', the most distinctive and renowned textiles of *Tai*

Phuan in Haad Siew subdistrict which is fabricated via indigenous processes and designs according to the folk wisdom techniques (Ramkhamhaeng University, 2003).

2.2.2 What makes *Paa Sin Dteen Jok* different from other traditional Thai textiles

Paa Sin Dteen Jok is a type of traditional Thai textile called *Paa Sin*. There are many kind of *Paa Sin* depending on the different localities. Each locality differs in the size, the way to wear and the pattern of *Paa Sin*. *Paa Sin* is usually worn in Laos and Thailand especially in the North, Northeast and Central of Thailand. *Paa Sin* was one of the prides of Thai women and the weaving is usually done at the home by women. Mothers teach her daughters to practice the skill of weaving until becoming more proficient where they can weave beautiful *Sin* to use in the special event such as wedding and religious traditions (Cultural Information Center, 2011).

The tube skirt or *Paa Sin* are often divided into two types: Normal *Sin* that are commonly used in home and workplaces mostly use stripes pattern or no pattern woven with cotton or yarn mill; the second type is specialty *Sin* which are used on special events, and these are usually made from delicate weaving process, have the great pattern, colorful and takes a long time to be made in the weaving process. *Paa Sin* design structure is composed of three parts; *Hua Sin*, *Tua Sin*, and *Dteen Sin*. *Hua Sin* or waist band is the top part of *Sin* which is 12 inch width, usually be white, red or brown color. *Tua Sin* or main body is the middle part of *Sin* which have different styles in different places. *Dteen Sin* or *Cherng Sin* is the bottom part of *Sin* which can be found in different styles and designs. The hem piece of *Dteen Sin* can be red or black. The red color symbolizes the girls who still single while black color mean that women have been married (Textile Museum Naresuan University, 2008). These three sections makes *Paa Sin* distinctive from other traditional Thai textiles which does not have clear sections.



Figure 2.2.2-1 *Paa Sin Dteen Jok* Haad Siew, Sukhothai

The words *Dteen Jok*, *Dteen* refers to *Cherng Sin* or bottom section of *Sin*, while *Jok* is Lao language which means to pick out. *Tai Phuan* people have been using *Jok* weaving technique to make border strips of traditional *Paa Sin* by using a porcupine quill stick (ขนเม่น) or wooden stick to pick out certain yarn. *Paa Sin Dteen Jok* woven by the villagers are normally intended to be used as sarongs or skirts. Many beautiful patterns on the *Paa Sin Dteen Jok* are made to show the position of the wearer.

Paa Sin Dteen Jok consists of main and minor patterns. The main patterns are the biggest patterns and must be located in the middle of *Paa Sin* while minor patterns have to be on the top and bottom parts of main patterns. There are nine main patterns of *Dteen Jok* from Haad Siew village which are *Kluer-Noi* (เครื่องน้อย), *Kluer-Klang* (เครื่องกลาง), *Kluer-Yai* (เครื่องใหญ่), *Mon-Sib-Hok* (มนสิบทก), *Sib-Song-Nuay-Tad* (สิบสองหน่วยตัด), *Paad-Khor* (แปดขอ), *Sii-Khor* (สี่ขอ), *Naam-Ang* (น้ำอ่าง), and *Song-Thong* (สองห้อง) (Sathorn Gold Textiles Museum, 2012).



Kluer-Noi (เครื่องน้อย)

The pattern is an easy pattern to weave, the weavers usually ask teenagers to try this pattern as an introduction to weaving.



Kluer-Klang (เครื่องกลาง)

The pattern is similar to *Kluer-Noi*, but still differs on the longer length of *Kluer*. Most of the weavers do not weave this pattern because it is hard and will get messier at the back of *Paa Sin*.



Kluer-Yai (เครื่องใหญ่)

The pattern is bigger than *Kluer-Klang* and it has a flower in the middle of *Kluer*.



Mon-Sib-Hok (มนสิบทก)

The pattern is similar as the general *Dteen Jok* pattern, but it has sixteen angles (*Khor*) on the pattern and it is weaved with two colors; green and yellow.



Sib-Song-Nuay-Tad
(สิบสองหน่วยตัด)

The pattern has twelve angles (*Khor*) and have circular-like patterns.



Paad-Khor (แปดขอ)

The pattern is similar to *Mon-Sib-Hok*, but it is resized to be smaller and uses yellow and black spindles to weave.



Sii-Khor (สี่ขอ)
The pattern is preferably worn by girls and it is originally from Haad Siew village.



Naam-Ang (น้ำอ่าง)
The pattern has two birds holding one flower together in the middle of pattern and the birds are on the basin.



Song-Thong (สองห้อง)
The pattern is unlike the other eight patterns because this pattern needs two different colored of spindles; black and red.

Figure 2.2.2-2 Main patterns of *Dteen Jok Haad Siew* (Sathorn Gold Textiles Museum, 2012)

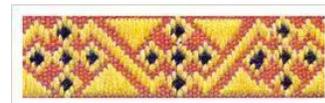
Apart from main patterns, there are minor patterns that helps decorate and make main patterns more outstanding. Minor patterns also can be classified into three groups; animal shapes, plant shapes, and geometric shapes.



Nok-Koum (นกคุ้ม)



Nok-Khab (นกคาบ)



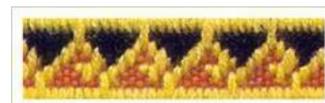
Dork-Mhee (ดอกหมี)



Nok-Moo (นกหมู)



Kluer-Khor (เครือขอ)



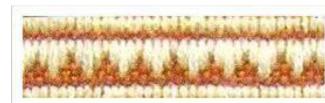
Ngoe (โง๊ะ)



Soy-Mhak (สร้อยหมาก)



Soy-Sa (สร้อยสา)



Fun-Pla (พินปลา)

Figure 2.2.2-3 Minor patterns of *Dteen Jok Haad Siew* (Sathorn Gold Textiles Museum, 2012).

2.2.3 The ritual difference in patterns of *Paa Sin Dteen Jok Haad Siew*

Paa Sin Haad Siew weaving technique, *Jok*, are done differently in each area. *Jok Haad Siew* uses the front of the fabric facing up when weaving while other *Jok* weaving groups in Thailand such as *Tai Yuan* in Ratchaburi, *Tai Kang* in Supanburi, Mae Chaem, Chiang Mai, Phrae, Uthai thani, Chainart, Phichit and Phu Tai *Baan Phon* in Kalasin weaves on the back of the fabric that is facing up (Intangible Cultural Heritage, 2009).



Figure 2.2.3-1 *Dteen Jok Haad Siew* weaving technique (Khunkru Ratchata, 2012)



Figure 2.2.3-2 Others *Dteen Jok* weaving technique (Kru Bua)

2.2.4 The traditional production process

The traditional production process of *Paa Sin Dteen Jok* consists of three main parts which are cotton yarns preparation, natural dyeing, and the weaving process.

2.2.4.1 Cotton yarns preparation

1. *Keb Fai* (Cotton collection)

The cotton are picked up when it is fully grown. Cotton takes a long time to grow and can be collected after six to seven months (Suntree Weaving Center).



Figure 2.2.4.1-1 Cotton collection

2. *Toon Fai* (Cotton drying)

The cotton flower are brought from the cotton trees and then dried with sunlight (Suntree Weaving Center).



Figure 2.2.4.1-2 Cotton drying

3. *Aew Fai* (Seeding out)

The cotton seeds are separated from the cotton flower during this process (Suntree Weaving Center).



Figure 2.2.4.1-3 Seeding out

4. *Ying Fai* (Willowing)

The cotton are shot and flip with a *Gong* (a kind of equipment for shooting/flipping the cotton) to make it fluffy and separate the fiber, and therefore making it more manageable (Panyaden School).



Figure 2.2.4.1-4 Willowing

5. *Lom Fai* (Cotton rolling)

The cotton wool are spread and rolled into a 10 cm tube. (Suntree Weaving Center)



Figure 2.2.4.1-5 Cotton rolling

6. *Khen Fai* (Cotton spinning)

Cotton fibers are pulled from the wool of the cottontail into lines, then it is spin and twist to make it strong by spinning-wheel (Panyaden School).



Figure 2.2.4.1-6 Cotton spinning

7. *Pea Fai* (Collecting yarn)

The yarns are wrap together with *Pea Fai* to make the cotton into pieces called Jai (Suntree Weaving Center).



Figure 2.2.4.1-7 Collecting yarn

After cotton yarn is fabricated, the natural dyeing process is conducted.

2.2.4.2 Natural dyeing

These types of dyes used in the natural dyeing process are mostly obtained from natural sources for example roots, leaves, fruits and flowers. Normally, natural dyeing are done after the yarns are collected but before the weaving process. Using different colors makes pattern designing easier. There are two methods of natural dyeing:

Cold dyeing can be done by soaking, fermentation, or color dilution from cold water and then dyeing. There are various ingredients for dyeing such as indigo leaf. The fermentation process is delicate, complicated and takes time. Cold dyeing from natural color comes from leaves, flowers and fruits from different kinds of plants (Pioneer Thinking).



Figure 2.2.4.2-1 Cold dyeing (D'Source)

Hot dyeing is the usual way of dyeing cotton fiber. Bark, roots and heartwood are regularly used for hot dyeing by boiling them to extract the color. Then, it is left until cool before dyeing or boiling the fiber in hot water (Pioneer Thinking).



Figure 2.2.4.2-2 Hot dyeing

After natural dyeing, the wrapped yarn was soaked in rice water (*Naam Khao Fai*) to make the yarn stronger and absorb better color. This step called *How Naam Khao Fai*. Then, beaten the yarn with wood stick and then dried by sunlight (Suntree Weaving Center). Once the dyed cotton yarn, the main raw material in the production of *Paa Sin Dteen Jok* is prepared, the weaving process can then begin.



Figure 2.2.4.2-3 the finished dyed cotton yarns

2.2.4.3 Weaving process

1. *Kuak Fai*

The yarn that was dried together was connected together (Suntree Weaving Center).



Figure 2.2.4.3-1 *Kuak Fai*

2. *Kon Hoo*

This process includes warping the yarns together (Suntree Weaving Center).



Figure 2.2.4.3-2 *Kon Hoo*

3. *Sueb Hook*

The yarn was connected to the frame. Connected the new stand-up cotton with old stand-up cotton (Suntree Weaving Center).



Figure 2.2.4.3-3 *Sueb Hook*

4. *Dteen Jok* Weaving

Dteen Jok Haad Siew fabric uses porcupine quills in this process which is different from the other communities (Suntree Weaving Center).



Figure 2.2.4.3-4 *Dteen Jok* Weaving

2.3 The challenges of the traditional production process in preparing the raw materials

The two main challenges in the traditional production process of *Paa Sin Dteen Jok* are cotton yarn preparation and the natural dyeing process.

2.3.1 Cotton yarn preparation

Cotton yarn fabrication or *Khen Fai* (เข็นฝ้าย) is the sixth step in the preparation of cotton yarn according to the traditional Thai cotton textiles production as mentioned earlier. It is known to be the most complicated and time consuming step, which require patience and highly skilled labor. The quality of the produced cotton yarn will depend solely techniques of the artisan's hand motion on the equipment; the left hand is used in pulling the cotton yarn and the right in turning the simple mechanical wooden device. If the artisan is able to cooperate their hands properly, the fabricated cotton yarn will appear smoother and the productivity will also be higher. On average, it takes approximately 6-8 hours to fabricate one skein of cotton yarn. Two to three skeins of cotton yarn are needed to make one piece of average Thai tube skirt or *Paa Sin*; this depends on the complexity of the patterns used in the particular *Paa Sin*.

The design of the traditional device used to fabricate cotton yarn was intended for the artisan to sit on the floor while performing the task. The motion and posture that the artisans have to perform is, however, unfavorable toward the textile's backbone structure. Back pain is known to be one of the common symptoms the traditional textiles artisans gets from working too much at this process.

With these challenges which are not productive, time consuming, and difficult, local artisans of Haad Siew subdistrict in Sukhothai have replaced the cotton yarn preparation process by acquiring the materials made directly from factories to save their time.

2.3.2 The natural dye

As mentioned earlier in this chapter, natural dyeing is conducted by boiling yarns of cotton with parts of specific plants and trees, such as roots, seeds, trunks and flowers, and secretions from insects, such as lac. The acquisition of the various components is a very crucial step as the artisans will need to use specific item for each color. For example, local artisans in Sukhothai would produce natural red dye by making use of the sticklac, a resin-like secretion of lac insects that encrusts the insects' bodies.

However, with the emergence of synthetic dyes, the production of sticklac has declined. The local artisans then have to seek alternatives to sticklac within the area. Nevertheless, according to the interview with Ms. Raveevan Khanadnid, a deputy leader of the Haad Siew Weaving Center, they are yet to discover any alternatives. As red is one of the major colors in the patterns of *Paa Sin Dteen Jok*, the artisans have no choice but to use synthetic dyes instead.

As the producers cannot find the raw materials for the red dyes they turned to utilize synthetic dyes instead. The issue comes from the villagers not having enough incentive to search for the raw materials in which they have to options to import the materials available from other province in the country.

As synthetic dye was developed to be more effective than natural dye, synthetic dye then has better properties than the natural dye in many ways. For example, with synthetic dye, producers have options for wider spectrum of colors (Queen Sirikit Department of Sericulture, 2013) and standardization of dye colors can also be easily managed. Nevertheless, the components in these synthetic dyes are chemicals. After the dyeing process, water used during the process will be contaminated with chemicals (Suesat, C., 2010). This discharged water usually contains heavy metals and has high alkalinity (Department of Industrial Works, 2009). Department of Industry Works also reported that there are some factories, which are unable to treat the discharged water according to the established standards. There is a controversy, however, that if a higher standard on Textiles Dyeing Industry were determined, the production cost would be higher and could make Thai textiles industry less competitive in the global market (Department of Industrial Works, 2009). In summary, the team discerns that there are alternatives of existing raw materials for natural dyes so it is not an issue that require our assistance.

2.4 Current alternatives to the traditional production process

Due to the insufficient productivity and complexity of the certain procedures within the traditional production process of *Paa Sin Dteen Jok*, artisans have substituted various procedures by acquiring raw materials directly from factories and neglecting the use of the traditional production process. This results in the discontinuation of indigenous handcrafted *Paa Sin Dteen Jok*. As the ready-to-use chemical dyed cotton yarns are widely offered and supplied by factories within Thailand, artisans then lack the incentive to continue their rituals and seek convenience by utilizing these ready-made materials to create their products.

Cotton yarn fabrication is the key point that affects the loss of traditional handcrafted production process. As cotton fabrication, known to be a labor and time consuming process, is a necessary set of procedures for all traditional Thai cotton textiles

production. Therefore, research projects and competitions on the invention of the facilitating devices have been conducted by several universities and colleges around Thailand. These mechanical inventions were created to assist the fabrication of cotton while retaining the value of being handcrafted.

Chiang Mai University had created a project called '*Fai Gaem Mai*' at the Institute of Science and Technology to help Thai textile producer groups improve the various and distinctive production processes and their product. One of their objectives was to develop innovations for improving local textile quality and products so that it would be able to compete in the changing markets as well as to make local textile production a viable part of it while considering the King's sufficiency economy model. So, to achieve this objective they built a labor saving device to reduce the time consuming process (Science and Technology Research Institute, 2000). The picture below illustrates the device made by the university.



Figure 2.4-1 *Khen Fai Medleri Charka*

Contact: Research Center building 2, floor 1, room 239.
Telephone number: 053-943615 (Musikajaroen, A., 2014).

This device is called *Khen Fai Medleri Charka*, it is used in the cotton spinning process. It was made by the Institute of Science and Technology from Chiang Mai University.

Nopparat Chantha, Thapanun Ounbaan, and Piyawat Moonguntaa, the students of Lamphun Technical College has designed and built a cotton spin machine called ‘Automatic Cotton Skein Spinning Machine’ for a science project. The machine operates by an electric motor and can produce 100 grams of cotton yarn in 42 minutes which is approximately the same time as the normal process. The advantages comes from the machine allowing the weaver to sit in a better poister which is more safe toward their well being (Lumphun Technical College, 2014).



Figure 2.4-2 Automatic Cotton Skein Spinning Machine

Contact: Somnuek Mungara (advisor), Phone number: 0841690401, Chusri Mungara 0825319698, Grongjai Inpibaan 0837635341 from Lumphun Technical College, Telephone number: 053-511073 (Lumphun Technical College, 2014)

Electric cotton gin model was invented by Chalermchai Khothapat and Yhasinthorn Inprom from Phayao Technical College. They invented new cotton gin equipment for both research and competition. The device uses electricity to help facilitate the amount of labor force put in spinning the equipment. As a consequence, the amount of time used on this step in cotton processing is substantially decreased (Khothapat, C., 2013).



Figure 2.4-3 Electric Cotton Gin Seed Separating Machine

In conclusion, several associations have been trying to invent new labor saving device for Thai textile production process as they realize the effectiveness and drawbacks of the production process which is time consuming as well as causing health risk such as backache. With these drawbacks, people turn away from the traditional production process as they do not have the incentive in continuing the process. In order to solve this issue, devices are created as alternative equipments to help solve all these problem of the traditional production process.

2.5 Demand stimulation of traditionally produced product

Since the provision of the facilitating devices alone would not encourage artisans to return to pursue their traditional production process, the demand towards products must also be stimulated. Her Majesty Queen Sirikit has initialized The Royal Peacock certification trademark for Thai silk with the intention to not only control the quality of Thai silk but to also preserve heritage cultures of Thai's folk wisdoms.

The Queen Sirikit Department of Sericulture has set up 'The Royal Peacock logo' to authenticate Thai silk and certify it as a trademark for producers to meet a defined Thai silk standards such as the products must be produced only in Thailand. Hence, the Royal Peacock logo serves to enhance and stimulate customers' confidence when purchasing Thai silk products and also help them to recognize what grade of silk they are buying. There are four grades of silk fabrics namely, Royal Thai silk (gold), Classic Thai Silk (silver), Thai Silk (blue), and Thai Silk Blend (green). Each color is classified based on the specific types of silk, quality of raw materials, and the production process (The Queen Sirikit Department of Sericulture, 2014).

Table 2.5-1 The different colored Royal Peacock logo

The Royal Peacock logo	Description
 <p>The Gold Peacock logo features a stylized peacock with its tail feathers fanned, enclosed in a gold oval border. Below the oval, the words "Royal Thai Silk" are written in a cursive font.</p>	<p>The Gold Peacock logo (The premium Royal Thai Silk logo)</p> <p>It is used for the finest Thai silk yarn as their raw material, natural dyeing and the whole product itself is made solely by the traditional processes.</p>
 <p>The Silver Peacock logo features a stylized peacock with its tail feathers fanned, enclosed in a silver oval border. Below the oval, the words "Classic Thai Silk" are written in a cursive font.</p>	<p>The Silver Peacock logo (The Classic Thai Silk)</p> <p>It is used for the silk products of both traditional and applied processes.</p>
 <p>The Blue Peacock logo features a stylized peacock with its tail feathers fanned, enclosed in a blue oval border. Below the oval, the words "Thai Silk" are written in a cursive font.</p>	<p>The Blue Peacock logo (Thai Silk)</p> <p>It is used for the silk products of traditional processes that have been adapted for practicality and commercial viability and the dyes could be made from natural or green chemical.</p>
 <p>The Green Peacock logo features a stylized peacock with its tail feathers fanned, enclosed in a green oval border. Below the oval, the words "Thai Silk Blend" are written in a cursive font.</p>	<p>The Green Peacock logo (Thai Silk Blend)</p> <p>It is used for silk products of a mixture of traditional and modern processes in its patterns and colors. It is also used pure silk to blend with natural or synthetic fibers.</p>

CHAPTER 3: Methodology

The information collection methods were in the forms of interviews and observation. These two procedures allowed us to get the most accurate and reliable data to fulfill four of the team's objectives.

The ultimate goal of this project was to induce the production of 100% handcrafted *Paa Sin Dteen Jok*, which could capture the attention of the upper market that has higher purchasing power. This would escalate the perceived value as well as preserve the traditional production process of *Paa Sin Dteen Jok*. In order to stimulate the production of 100% handcrafted *Paa Sin Dteen Jok*, it was our intention to identify the additional causes in the lost popularity of *Paa Sin Dteen Jok* traditional production process in Haad Siew subdistrict, Sukhothai province and to determine promotional methods that would contribute on increasing the appreciation of the general public towards traditionally handcrafted *Paa Sin Dteen Jok*. To achieve the project's goal of assisting the Sukhothai College of Dramatic Arts to revive and preserve the traditional textile '*Paa Sin Dteen Jok*' the team has come up with four objectives which would be further detailed in the methodology section.

The objectives are:

1. To understand public perception and appreciation of 100% handcrafted textiles
2. To recommend effective persuasion methods aim to increase public appreciation 100% handcrafted *Paa Sin Dteen Jok*
3. To identify the problems and limitations of the traditional handcrafted production process of *Paa Sin Dteen Jok*
4. To determine ways to preserve the unique handcrafted procedures of indigenous *Paa Sin Dteen Jok* within the Haad Siew community for the next generations

The methods described below were designed to help us achieve each of these objectives.

3.1 To understand public perception and appreciation of 100% handcrafted textiles

Before the team proceeded to achieve the goal of preserving traditional handcrafted process of *Paa Sin Dteen Jok*, it was vital that the team first identify the perception of the public towards 100% handcrafted textiles. This initial objective was important as the team needed to confirm the present customers demand for 100% handcrafted in order to ensure feasibility of the success of such product. The

methodology in this objective was primarily to conduct survey on both the general public and potential customers of traditional cotton textile.

3.1.1 Survey of Potential *Paa Sin Dteen Jok* customers

A questionnaire survey was conducted to determine the preference of both the general public and potential traditional cotton textile customers. Both sample groups of the population were surveyed in order to identify potential differences in perspectives and perceptions of each population group. This data would direct the team in suggesting realistic and effective recommendations for the community and the sponsor.

The first question the team had asked in the survey was the age of the sample; this is done in order to identify the demographic trends. The overall boundary of our questions was to ask whether the sample has ever purchased traditional textile before, sample's preferences on entirely handcrafted textiles, as well as sample's opinion on its quality and price.

Foreigners as well as Thais were included in our sample population as they are also potential customers. In addition, the amount of people surveyed was not fixed and depended on the time spent at particular location. The team conducted surveys in locations around Bangkok famous for Thai textiles namely, JJ Market, The Old Siam Plaza, Chamchuri Square and MBK Center. The survey data gathered were assumed to be the data from potential or current target market. Two of these, JJ Market and The Old Siam Plaza were selected as both locations comprise of several traditional Thai textiles shops. The survey on general public was conducted at; Chamchuri Square which is mostly populated with wide ranging age group of office workers, and MBK Center, a general multi-retail stores shopping center, which attracts all kinds of shoppers.

The team also conducted survey in the online forums popular among individuals who are interested in Thai textiles and/or Thai cultures. The same set of questionnaire was incorporated into Google Forms and the link to the forms was sent to specific forums in Facebook namely 'Toh Fah *Paa* Thai (ทอผ้าผ้าไทย)' and '*Paa* Lae Sing Tuk Tor Thai (ผ้าและสิ่งทอไทย)'. These forums were chosen as the team found that the pages meets our expectation containing a substantial amount of sample population who are interested in purchasing traditional Thai textiles. The online survey was also conducted via social media as another means to reach the general public.

3.2 To recommend effective persuasion methods aim to increase public appreciation of 100% handcrafted *Paa Sin Dteen Jok*

It was vital to find a manageable yet effective way to encourage customers to recognize and appreciate 100% handcrafted *Paa Sin Dteen Jok*. As the team had previously found from the survey that high portion of the population are unaware of the complex traditional production process of *Paa Sin Dteen Jok*, the team then proceeded to find ways to increase this awareness. The team had found ways to inform customers on the differences between 100% handcrafted and partially handcrafted textiles as well as signified the benefits that local weavers at Haad Siew are going to receive if there is an increase in demand towards full handcrafted products. The team had utilized the method of interview to identify the different attributes of *Paa Sin Dteen Jok* that are made via entirely handcrafted versus partially handcrafted production process. Then for the next part, archival research was used to find the possible strategies that are effective in delivering information to the customers followed by a SWOT analysis to continue the analysis. Lastly a questionnaire was conducted to confirm that the chosen media is most effective for communicating our message to target consumers.

3.2.1 Interview with the woven Thai ethnic textile specialists

To achieve the objective, investigations on ways to make the customers distinguish between 100% handcrafted and partially handcrafted products must be made. However, in order to do so, the team had to understand thoroughly on the difference and any affiliating facts between mill-spun and hand-spun textiles. The team gathered this knowledge by conducting interviews with experts from the Thai textiles industry namely; Mr. Joe Suthirat, a textiles expert from the Queen Sirikit Museum of Textiles; Ms. Phraeva Rujinarong, a textiles expert and product design at The Queen Sirikit Department of Sericulture; Mr. Udom Riantrakool, a member in the Thai Textiles Society and a traditional Thai textiles shop owner at Siam Paragon, a traditional Thai textiles collector. The interviews with these three experts are valuable as each of them has different positions in the area of traditional Thai textiles and can offer ideas and suggestions to help the team.

The goal of the interview was to find sufficient information in order to know all the attributes of the cotton *Paa Sin* that are different from each others when crafted. Technical information was asked specifically in order for the team to fully understand the differences. Semi-structured interview was used in this step so that the information received was not limited by the questions prepared and the answer would be unbounded to gain a complete set of information. The data received from this part was crucial, as it would be incorporated into the marketing model derived in the next step.

3.2.2 Research and analysis on strategy of highest potential in effectively delivering the message to the target market

The team conducted archival research on journals and published papers to find methods of communication such as brochures or posters from textile companies. This was done to determine strategies with the highest potential in effectively delivering the message to the target market. The team took in mind the financial and labor input limitations that the sponsor and the local handicraft center have, which would lead to a realistic yet effective approach. In order to deeply analyze the models, a detailed assessment on the attributes of the models was conducted.

The team used the method of the SWOT analysis to help evaluate each models. The SWOT analysis was useful as it aided in identifying the internal and external factors that were favorable or unfavorable to achieve a particular objective. The internal factors that the team looked at through this analysis method were the strength and weakness of the model that gives advantages and disadvantages over the others. For the external factor, this analysis looked at the opportunities the model has that could be exploited to its advantage, and the threats or elements in the environment that could lead to difficulty for the model to work.

3.2.3 Validation of the selected promotional strategy via questionnaire

Once the team had identified the potential promotional strategy through research and analysis, the next step was to validate if the stated strategy would be appropriate for utilization in the intended environment. In order to proceed, the team had utilized the method of online questionnaire to determine the statistical data on the population's preference toward the chosen media of communication. An online questionnaire was given out through random sampling focusing on population range with the age of 35 or more. This was the chosen age group as from the first objective, the team had found that a substantially large portion of the recipients with the age of 35 or more prefer to buy the product compared the younger recipients. Results from the questionnaire were analyzed in the data analysis section in order to statistically confirm that whether the communication media would work effectively in the chosen market or not. The outcomes from this section allowed the team to proceed with the development of the chosen media.

3.2.4 Development on a marketing strategy

Additional research was completed in order to effectively develop the communication media. The team had identified the most effective characteristics of the selected medium and had developed additional adjustments on increasing the medium's advantageous attributes. Data from interviews, site assessments, and surveys conducted by the team was integrated into the media so that it would link to the aspects needed to be addressed. This was done in order to modify the media to suit the project's goal. Lastly,

the team ensured that there was enough information to be incorporated into the media so that it could be implemented effectively and successfully.

3.3 To identify problems and limitations of the traditional handcrafted production process of *Paa Sin Dteen Jok*

The team first identified the reasons behind the local artisan's preference toward ready-made cotton yarns as opposed to creating their own yarns through the traditional handcraft production procedures. The necessary information was gained mainly through the process of conducting interviews. The team interviewed the villagers individually instead of conducting a group interview in order to minimize the effect of peer pressure. Members of the team approached the villagers in pairs to make sure that the villagers were not stressed from being interviewed by a large group. On the day of the visit, convenience sampling was used as the team was not able to predict the population of sample group who were available at the day of the site visit.

As there might be facts that the team did not expect to learn or have previously come across to, semi-structured interviews were utilized. This particular interviewing structure encourages two-ways communication between the interviewer and interviewee as well as utilizing both open-ended and closed ended questions. The open-ended questions allowed the interviewers to receive extensive amount of information, whereas closed-ended questions allowed the team to validate crucial facts. All interviews were both noted by one of the team members and electronically recorded to ensure the accuracy of the data.

3.3.1 Interviews with the villagers and staffs at local handicraft center

Artisans currently weaving *Paa Sin Dteen Jok* are located in three villages in Haad Siew subdistrict, Sukhothai. These villages are Haad Siew village, Haad Soong village and Baan Mhai village. Out of these villages the team had interviewed a total of 11 villagers in which 5 are from Haad Siew village (out of 20 active weaving villagers), and 6 are from Haad Soong village (out of 30 active weaving villagers). Several individuals were interviewed in this part to avoid biased data.

The questions asked were aimed to directly identify the problems and obstacles of the production process. The type of interview conducted at this location was semi-structured which was to include both open and closed-ended questions prepared and thought up during the interview. This was done in order in order to allow the interviewees to elaborate more on the problem of the production process so that the team can gain more data and insight. Audio recordings were later written down on a transcript detailing the questions and answers directly as interviewed. In addition, photos were taken to prove that the interview was conducted with the interviewee approval.

3.3.2 Observations

Observation and on-site assessments were conducted at the Weaving Center of Haad Siew subdistrict, as it was the only venue in the area that still demonstrates such production process. The team did a standard observation to develop full understanding of the production process as well as the setting and limitations of the area. The problematic areas and procedures in the production process was identified by the team through careful observation of the production facilities. Photos of the equipment as well as the artisans performing the tasks were taken so that it could be compared with the process used by other weaving villages. From our observations, the team was able to analyze that the production process was ineffective and could negatively affect attributes of the traditional textile.

3.4 To determine ways to preserve the unique handcrafted procedures of indigenous *Paa Sin Dteen Jok* within the Haad Siew community for the next generations

3.4.1 Archival research

The first step was to determine an appropriate technology that is able to help improve the traditional handcrafted production process. The team gathered researched on models of the facilitating device(s) that is being used and/or has been developed to assist the traditional handcrafted production process. This was done to allow the team to recommend feasible and suitable device(s) to facilitate the traditional production process at the weaving villages in Haad Siew subdistrict.

3.4.2 Interview with the associate of the appropriate facilitating device

After the team was equipped with adequate information, we selected a facilitating device based on its effectiveness in assisting the traditional handcrafted production process as well as the suitability of the location where the associate is based, to ensure ease of the device's deliveries and maintenances. The team then made contact with the associate of the particular model via conference telephone call in order to determine the willingness of the associate in supplying the device to the villages in Haad Siew along with the prices and further information on the device. The interview questions that the team had conducted were concise and direct, as the interview was made through phone call, which can be quite challenging as interviewee can be easily distracted. The main questions asked were:

1. Is your facilitating device for sale?
2. Have any active weaving villages in Thailand bought your device?
3. How much is your facilitating device?
4. Does the device require frequent maintenance?

5. How complicated is the mechanical parts in your device? Can standard mechanics maintain it?
6. Has it been proven that your device are able to give higher productivity than the traditional textile production process?
7. Does your device give the same or better quality of textile than the traditional textile production process?

3.5 Summary

The data which the team received from the interviews, surveys and archival research allowed the group to fulfill each objective which was first to understand the perception of 100% handcrafted textile products, second to recommend effective persuasion methods aim to increase public appreciation 100% handcrafted *Paa Sin Dteen Jok*, third to identify its problems and limitation and lastly, to determine ways to develop the process.

CHAPTER 4: Results and Analysis

The findings described in this chapter follow the results gathered from each of our four objectives. A review of the objectives is listed below:

1. To understand public perception and appreciation of 100% handcrafted textiles
2. To recommend effective persuasion methods aim to increase public appreciation of 100% handcrafted *Paa Sin Dteen Jok*
3. To identify problems and limitations of the traditional handcrafted production process of *Paa Sin Dteen Jok*
4. To determine ways to preserve the unique handcrafted procedures of indigenous *Paa Sin Dteen Jok* within the Haad Siew community for the next generations

This chapter begins with the approach the team has taken to identify the perception and appreciation of the public for Thai textiles through hand-written surveys conducted at four locations in Bangkok and online survey through Thai textiles forums on Facebook. Once this information was gathered, the team analyzed the most suitable strategy which would help persuade customers of the 100% handcrafted *Paa Sin Dteen Jok* to appreciate the product.

4.1 Objective 1: To understand public perception and appreciation of 100% handcrafted textiles

The team established five research questions in order to analyze the collected data to clearly understand the perception of the public.

4.1.1 Research question 1

Is traditional Thai textile popular among the public? Does demographic factor have influence on the demand towards Thai textiles?

From the first question (section 2) in our questionnaire survey (see Appendix B): *Have you ever purchased any traditional Thai textile?* We have found that, of 582 samples, 384 samples or 66% have purchased traditional Thai textile before. This means that presently there is a considerable consumer market for the traditional Thai textiles industry. On the other hand, there are still rooms for the market to expand to the other 34% of the population.

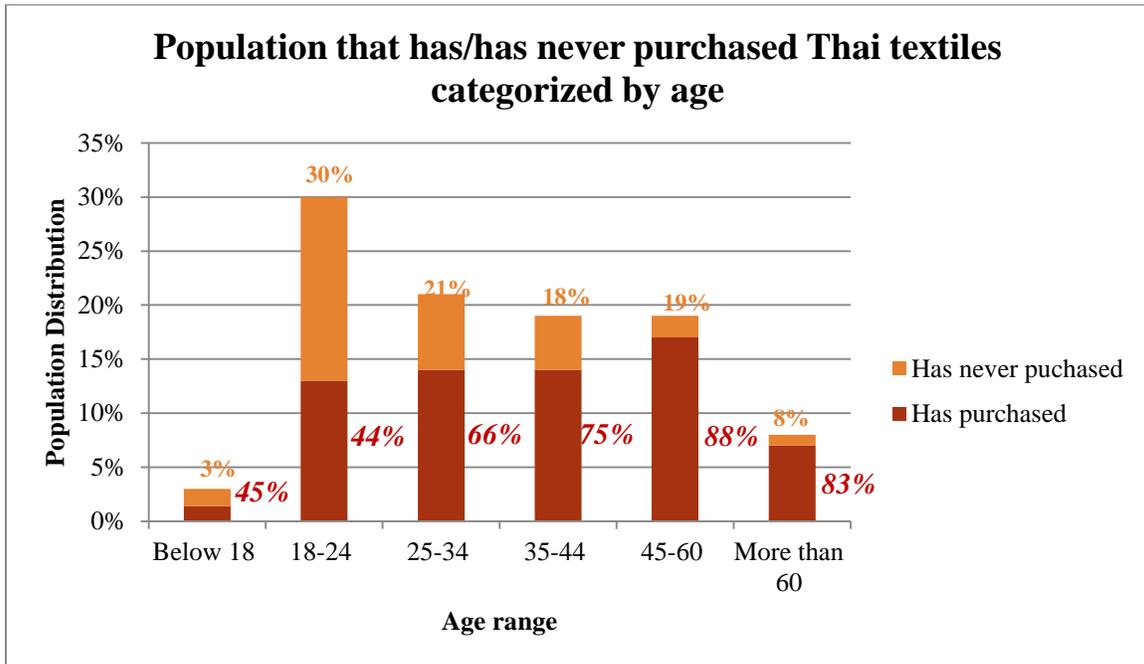


Figure 4.1.1-1 Distribution of the population that has and has never purchased traditional Thai textiles categorized by age

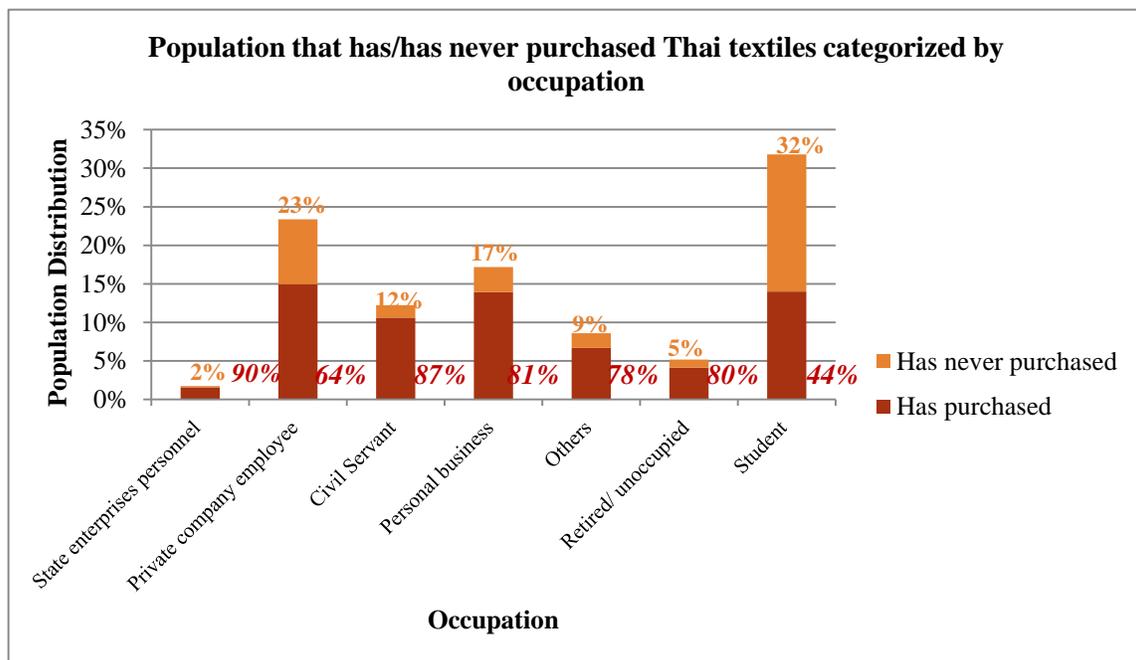


Figure 4.1.1-2 Distribution of the population that has and has never purchased traditional Thai textiles categorized by occupation

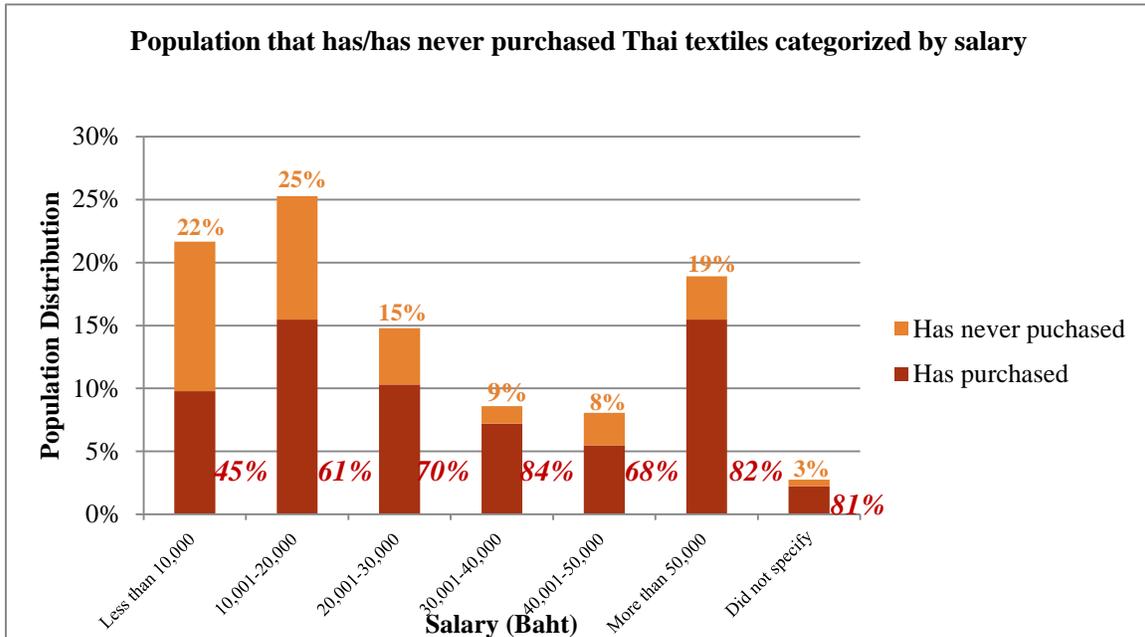


Figure 4.1.1-3 Distribution of the population that has and has never purchased traditional Thai textiles categorized by income

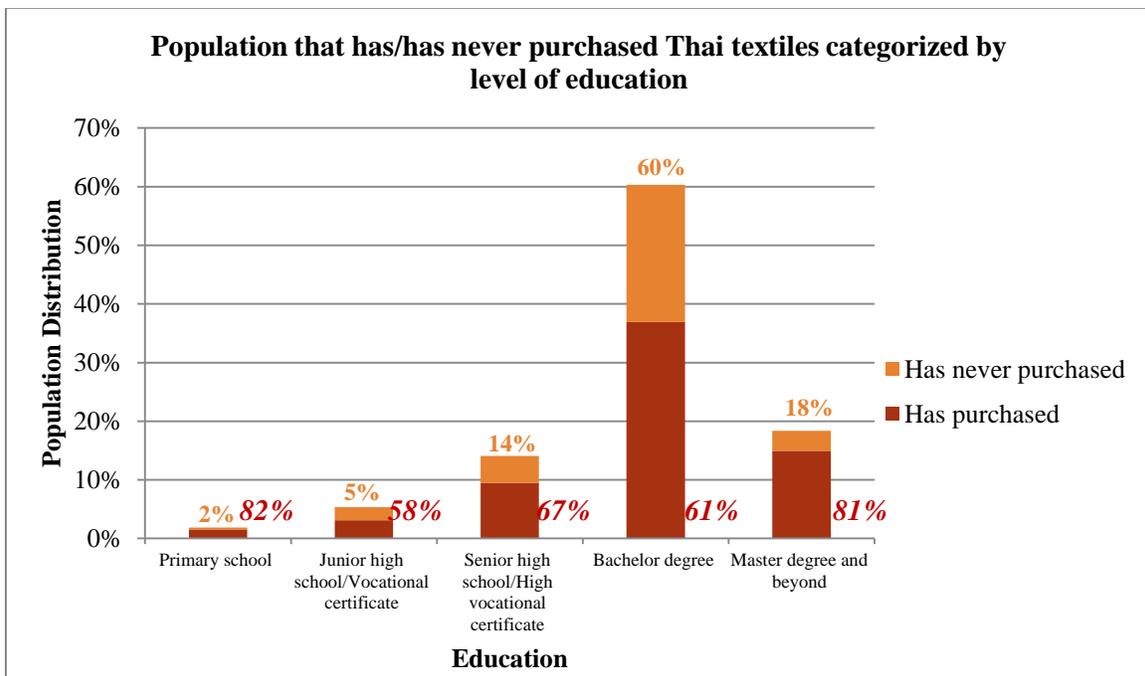


Figure 4.1.1-4 Distribution of the population that has and has never purchased traditional Thai textiles categorized by level of education

Finding #1: Majority of the public has purchased traditional Thai textile before

According to the graph of figure 4.1.1-1, in general, there is a positive correlation relationship between population distribution who has purchased traditional Thai textiles and age range. The age range of 45-60 and beyond 60 years old have highest population distributions that have purchased traditional Thai textiles of 88% and 83%, respectively. This result suggests that elder population would more likely to purchase traditional Thai textiles. t-test was conducted to see whether the suggestion of the results was true. The population with age of 35 and higher was classified as the elder population while the population of age lower than 35 was classified as the younger population. The obtained t value was -7.906 and P value of <0.05 which confirms that the elder population has a significantly different purchasing manner to the younger population with a 95% confidence percentage. Therefore the elder population is more likely to purchase traditional Thai textiles comparing to the younger population.

Finding #2: Elder population is more probable to purchase traditional Thai textiles

The graph of figure 4.1.1.-1 indicates that more than 80% of the population from the age range of more than 40 years old have purchased traditional Thai textiles before. The graph shows a trend where the percentage people who have purchased traditional textiles in each age range decrease as age decrease. This demonstrates that the aging populations are more likely to purchase traditional Thai textiles.

Finding #3: Occupation and level of education have no effects on the purchase manner of the population for the traditional Thai textiles

Figure 4.1.1-2 and 4.1.1-4, shows no relationship between occupation and level of education of the population affecting the purchases of traditional Thai textiles. As in both graphs, each variables has varying percentage and does not indicate a trend or relationship with each other.

Finding #4: Population of higher salary is more probable to purchase traditional Thai textiles

From the graph of figures 4.1.1-3, the overall trend of the analysis shows an increase of population distribution in relation to the increase in salary. The population with salary of more than 50,000 Baht has 82% of samples that have purchased traditional Thai textiles before while only 45% of the population that has salary of less than 10,000 Baht has previously purchased traditional Thai textiles. This data proposes that the populations with higher income are more likely to purchase traditional Thai textiles. According to the National Statistic Office of Thailand, the average income of citizens in Bangkok in 2013 is 16,593 Baht, the team therefore classified salary range of 20,001 Baht or more to be the higher salary range while salary of less than 20,001 to be the lower range. Confirmation of the proposition was made via t-test. The obtained t value was -5.699 and P value of < 0.05 verified that the population of higher salary has significantly different purchasing manner than that of the lower salary with a 95%

confidence percentage. This concludes that the population with higher income is more likely to purchase traditional Thai textiles than the population with lower income.

4.1.2 Research question 2

Is the public conscious of the Thai textiles?

Finding #5: Half of the public is unaware of the traditional production process of Thai textiles

Of the 582 samples, 271 samples (47%) are unaware of the traditional production process of Thai textiles. This denotes that approximately half of the population does not realize the complexity of the production process. This finding correlates to what the team has attained from the interview with Mrs. Suntimee Kanardnid, Head of the Haad Siew Weaving Center, she mentioned *“People nowadays do not know how Thai textiles are made and how complicated it is to make each one of them. Customers usually walk into the shop and moan about the relatively high price tags as they do not understand how much effort and time is needed to fabricate these textiles.”*(see Appendix G)

Finding #6: Half of the public is unable to distinguish the difference between hand-spun cotton yarn to the mill-spun.

From the 582 samples, 244 samples (42%) are able to distinguish the differences between hand-spun cotton yarn and mill-spun cotton yarn. Cotton yarn preparation is one of the procedures in the traditional production process of Thai textiles and if the cotton yarn is mill-spun, then the fabricated piece of textile would not be considered as traditionally handcrafted. According to an informal interview conducted with the owner of a Thai cotton textiles shop, *Fai Kram*, located at The Old Siam Plaza, the owner claims that *“General customers usually cannot identify which piece of textiles is made from hand-spun cotton yarn, they will mostly ask for advices if they specifically wanted the textiles which is composed of hand-spun cotton yarn.”* (see Appendix J) The surveyed data confirms that just about half of the population is unable to distinguish whether the particular Thai textile is entirely handcrafted or not.

4.1.3 Research question 3

Does the public perceive the value of 100% handcrafted textiles?

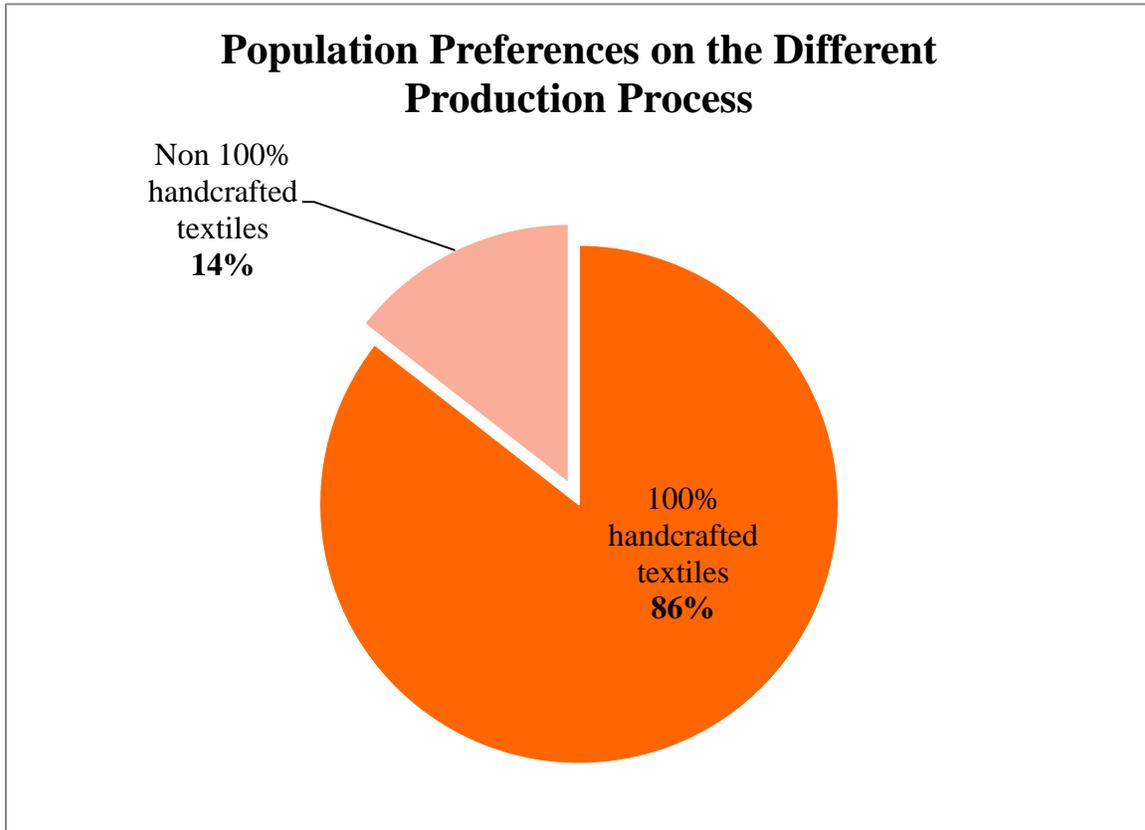


Figure 4.1.3-1 Population preference on textiles, which are produced via 100% handcrafted vs. non 100% handcrafted production process

Finding #7: Majority of the public prefers hand-made production processes over machine-made

From the fourth question (section 2) in the questionnaire survey (see Appendix A), according to the graph of figure 4.1.3-1, we have found that 498 samples or 86% of the participants prefers textiles, which are produced via 100% handcrafted production process compared to the minority which is 14%.

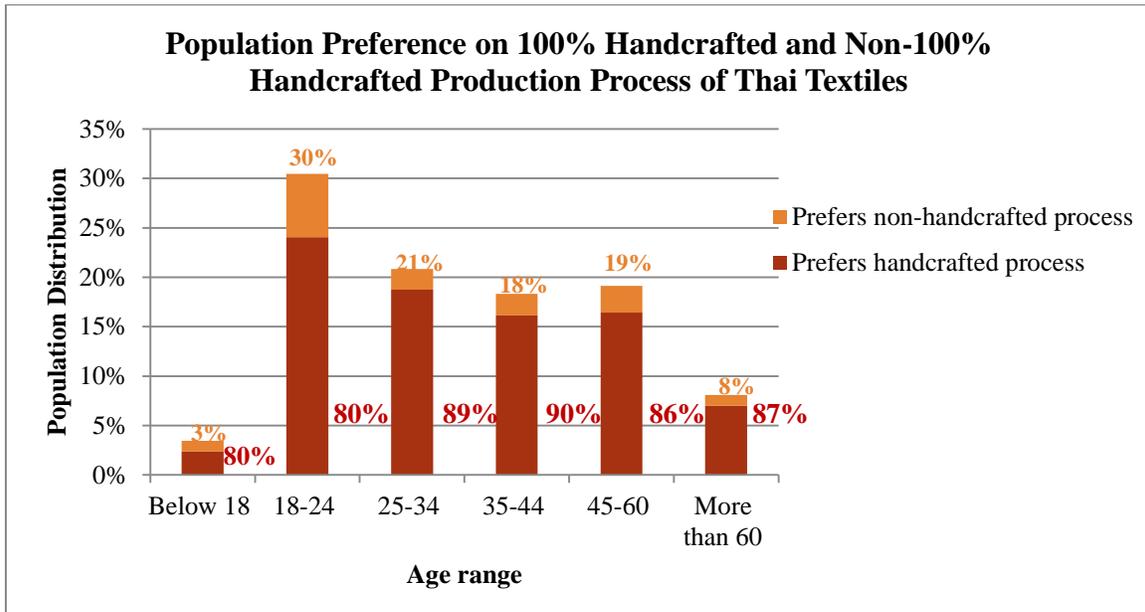


Figure 4.1.3-2 Distribution of the population, categorized by age range that prefers traditional Thai textiles, produced via 100% handcrafted vs. non-100% handcrafted production process

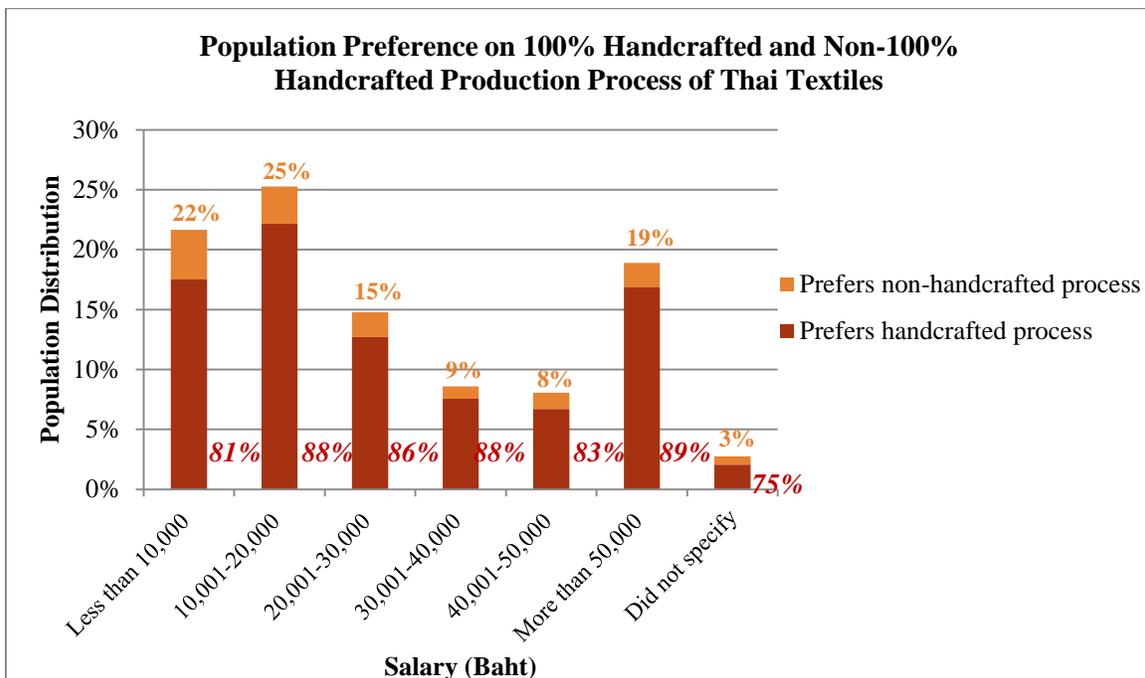


Figure 4.1.3-3 Distribution of the population, categorized by income that prefers traditional Thai textiles, which are produced via 100% handcrafted vs. non-100% handcrafted production process

Finding #8: Salary and age of the population do not have any effects on the preference of the population towards 100% handcrafted textiles

Even though, the analysis in section 4.1.1 Research question 1 denotes that salary and age were the two demographic factors that influence purchase manner of the population for the traditional Thai textiles, in contrast the graph of figures 4.1.3-2 and 4.1.3-3 suggests that these demographic factors do not have any relationship with the preference on textiles of different production process. This is proven as from the graphs, as approximately the same percentage of the sample population with different age and salary range show equal preference towards textiles, which is produced via 100% handcrafted production process.

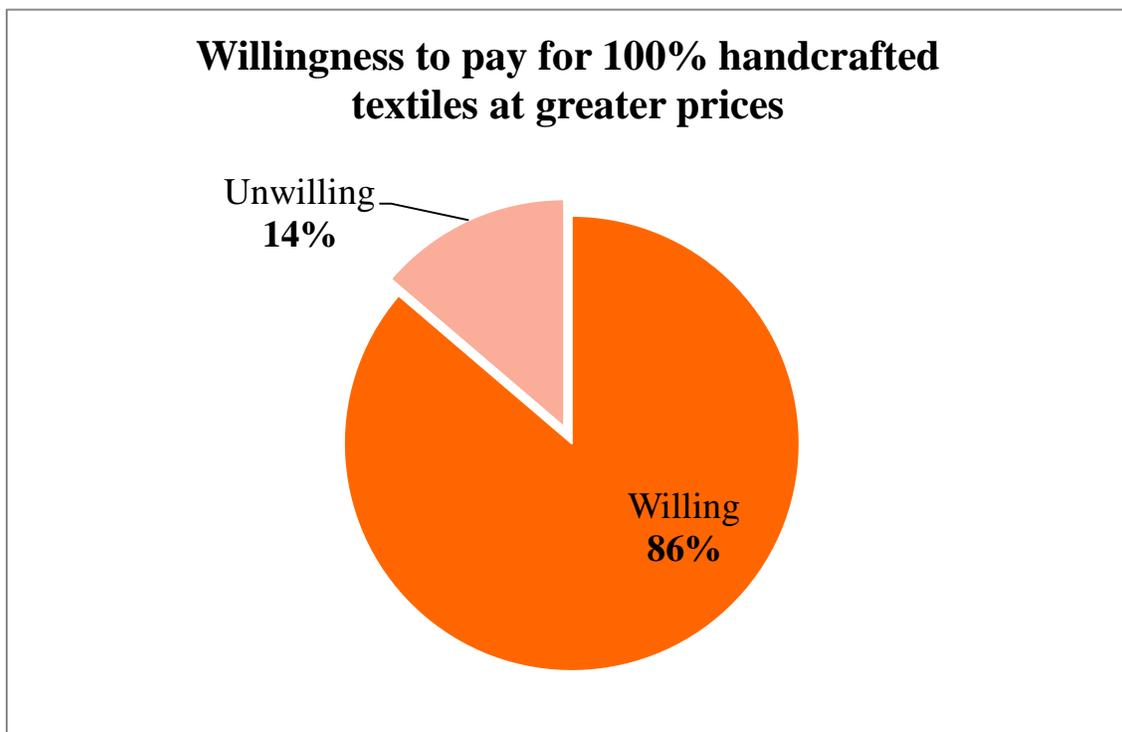


Figure 4.1.3-4 Willingness of the population to pay for 100% handcrafted textiles at greater prices

Finding #9: Majority of the public is willing to pay more for 100% handcrafted Thai textiles

According to 4.1.3-4, 86% of the 582 survey samples are willing to pay for 100% handcrafted textiles at greater prices than the non 100% handcrafted textiles. This means that the population is able to perceive some value in the product of such.

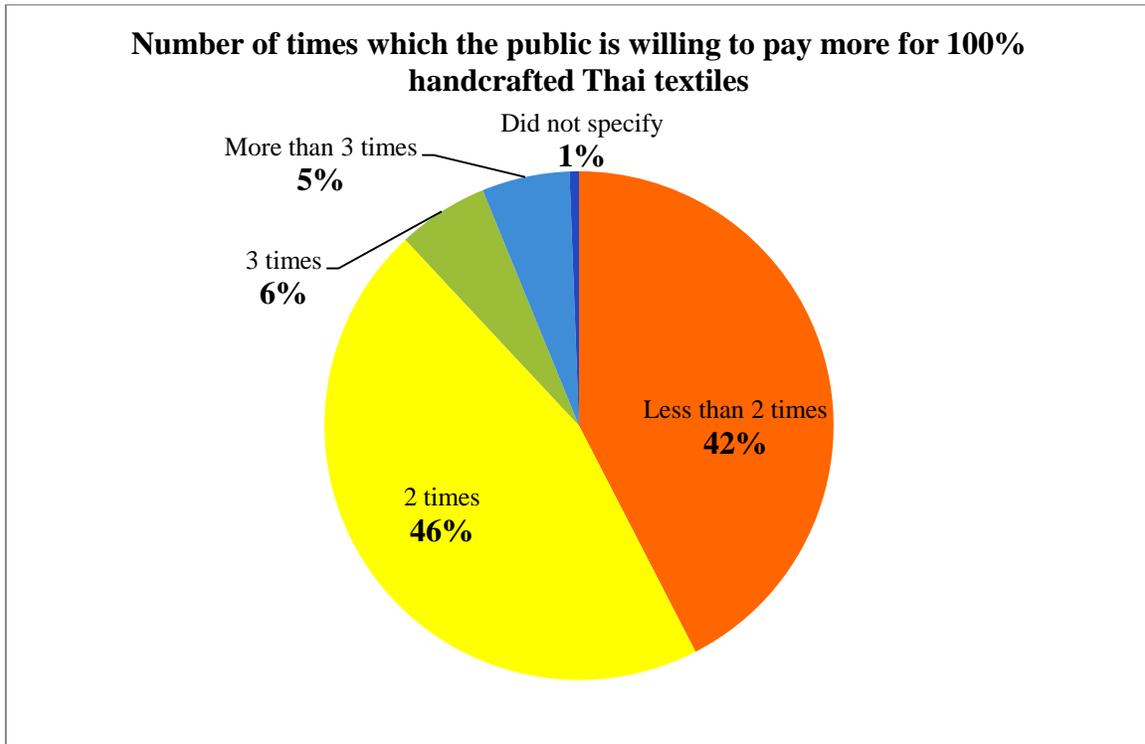


Figure 4.1.3-5 Distribution of the population willing to pay at greater prices for 100% handcrafted textiles at different multiples of price.

Finding #10: The public is willing to pay at 2 times or less for 100% handcrafted Thai textiles

From the figure 4.1.3-5, the analyzed data suggests that out of 502 samples who are willing to pay for 100% handcrafted textiles at greater prices, 46% and 42% are willing to pay 2 times more and less than 2 times, respectively, for the 100% handcrafted textiles.

4.1.4 Research question 4

Does awareness of the traditional handcrafted production process affect purchase decision of the handcrafted textiles?

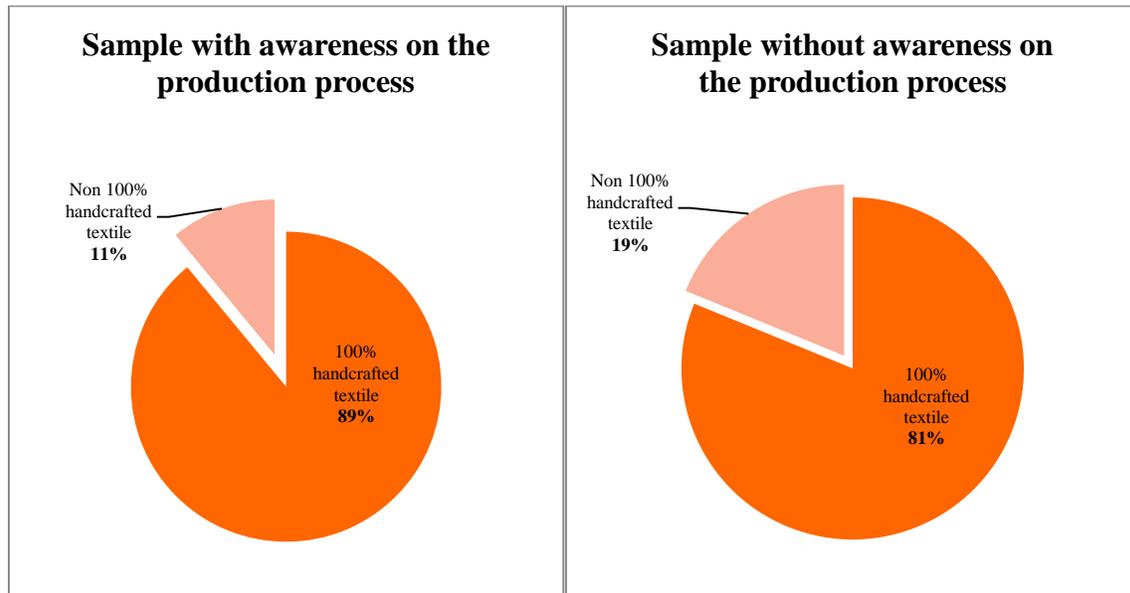


Figure 4.1.4-1 Preference for textiles, which are produced via different process, of the population who are aware and unaware of the production process of Thai textiles.

Finding #11: People who are aware of the traditional handcrafted production process of textiles would prefer the 100% handcrafted Thai textiles.

The team have found that of the 53% or 311 samples who are aware of the traditional handcrafted production process from 4.1.2 Research question 2, 89% prefers handcrafted Thai textiles. While of the 311 samples (53%) who are unaware of the traditional handcrafted production process, 81% prefers handcrafted Thai textiles. The difference in handcrafted textile preference of the population who are aware of the Thai textiles production process is 8% higher than that of the population who are unaware of the Thai textiles production process.

The data indicate that the higher the number of population who are awareness of the production process, the more likely the population would prefer handcrafted textile. t-test was conducted to verify whether the population who are aware and unaware of the production process would differently prefer the 100% handcrafted textile. The obtained t value was -2.825 and P value of < 0.05, this confirms that the preference of the population who is aware and unaware of the production process is significantly different with a 95% percentage of confidence.

This could be because once one is aware of the complex, time-consuming and laborious procedures, one would appreciate the effort that was invested into a piece of

textiles and might therefore prefer the 100% handcrafted Thai textiles over the non 100% handcrafted. This correlates with the observation the team has made at Thailand Tourism Festival 2015 at The Lumpini Park where most Thai textiles shops displayed the loom used for weaving. *“We try to show the customers how these traditional textiles were fabricated, so that they will realize how hard it is to make each piece of Paa Sin.”* stated Mrs. Suntree Khanadnid, Head of The Haad Siew Weaving Center. (see Appendix B)

Table 4.1.4-1 Difference in population distribution of the online and offline survey data on relation to the awareness of Thai textiles traditional production process to the preference of the handmade and non-handmade textiles

Awareness of the production process:	Aware		Unaware		Statistical Analysis (t-test)		
	100% Hand made	Non 100% Hand made	100% Hand made	Non 100% Hand made	t value	P value	Analysis at 95% confidential
Online survey (256 samples)	90%	12%	82%	18%	-1.853	0.065 > 0.05	Those who are aware and unaware have similar preference
Offline survey (326 samples)	89%	11%	80%	20%	-2.008	0.045 < 0.05	Those who are aware and unaware have dissimilar preference

Finding #12: Online and offline surveys data do not correlate for the following hypothesis: people who are aware of the traditional handcrafted production process of textiles would prefer the 100% handcrafted Thai textiles.

The statistical analysis via t-test shows that the online and offline surveys have dissimilar results.

The team analyzed that as the population of the online and offline survey who are aware and unaware of the production process both show similar preferences (90%/82% for aware and 12%/11% for unaware, respectively) towards 100% handmade textiles, there would be no difference in the preferences of the two populations. However, statistical analysis from the online and offline survey data shows contradicting results from our analysis.

From the t-test analysis, the obtained t value of online survey was -1.853 ($P>0.05$). This value indicates that the awareness of the Thai textiles traditional production process has no effect on the preference of the differently produced textiles.

On the other hand, for offline survey the population that is aware and unaware of the Thai textiles traditional production process has dissimilar preferences for 100% handmade textiles according to the t-test. The obtained t value was -2.008 ($P<0.05$). This value confirms that, for the offline survey, the higher the awareness of the Thai textiles traditional production process, the higher preferences for 100% handmade textiles.

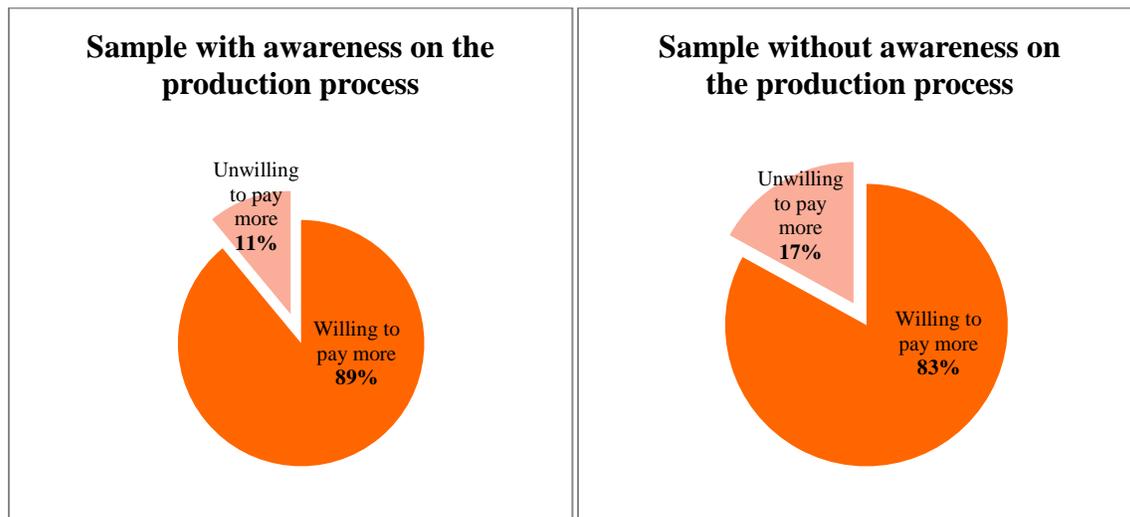


Figure 4.1.4-2 Willingness to pay at greater prices for 100% handcrafted textiles coming from the population who are aware and unaware of the production process of Thai textiles.

Finding #13: Awareness of the traditional handcrafted production process of textiles does not affect the willingness to pay at greater prices for 100% handcrafted textiles

Of the 47% sample who are aware of the Thai textiles production process, 89% are willing to pay more for 100% handcrafted textiles. While of the 53% of the population who are unaware, 83% is willing to pay more for the 100% handcrafted textiles. This denotes that there are no difference between the willingness to pay at greater prices for traditional handcrafted Thai textiles and the sample population who are aware and unaware of the production process.

t-test was conducted to confirm whether the two populations have similar willingness to pay at greater prices. The obtained t value was -1.873 ($P>0.05$), which suggests that the willingness to pay at great prices for traditional handcrafted Thai textiles is similar for both populations. This could be caused by the perceived value that handcrafted products in general are charged at higher prices due to the fact that each piece of handcrafted products is unique and made by hand. Therefore, no matter if the

population are aware of the actual process or not, they would expect to pay higher prices anyways.

Table 4.1.4-2 Difference in population distribution of the online and offline survey data on the relation of the awareness of the Thai textiles traditional production process to the willingness to pay for the handmade textiles at greater prices

Awareness of the production process:	Aware		Unaware		Statistical Analysis (t-test)		
	Willing	Unwilling	Willing	Unwilling	t value	P value	Analysis at 95% confidential
Online survey (256 samples)	90%	12%	82%	18%	-3.233	0.001<0.05	Those who are aware and unaware have the dissimilar decisions
Offline survey (326 samples)	87%	13%	88%	12%	-0.225	0.799>0.05	Those who are aware and unaware have the similar decision

Finding #13: Online and offline surveys data do not correlate for the following hypothesis: awareness of the traditional handcrafted production process of textiles does not affect the willingness to pay at greater prices for 100% handcrafted textiles

The results from the online and offline survey, again, shows dissimilar trend for the relationship between the awareness of the production process and the willingness to pay for handmade textiles at greater price.

The data from the online survey suggests that population that is aware of the traditional production process are more willing to pay at greater prices for handmade textiles than the population that is unaware by 8%. The proposed statement was proved to be true according to the t-test. As the obtained t value was -3.233 with P value <0.05, the two populations have dissimilar decisions.

However, for the offline survey, both populations, which are aware and unaware of the production process, have similar distribution of samples that are willing to pay for handmade textiles at greater price, at 87% and 88% respectively. t-test was conducted to confirm the suggestion from the data. The obtained t value was -0.225 with P value >0.05, this signifies that there is a similarity of decision for both populations.

To conclude, there is a conflict in the analysis of results between the online and offline survey.

Limitation:

The surveys were only conducted within Bangkok city, which could be seen as a biased data as population in other cities in Thailand could have different perceptions. The obtained data is only based on 582 samples out of approximately 8.3 million citizens living in Bangkok city in the year 2010 (National Statistic Office Thailand, 2014). To improve this data analysis, more set of samples could be used and surveys could be conducted throughout the different areas in Thailand in order to achieve a clearer picture of the public in Thailand.

Conclusion:

The data shows that there is a present group of consumers for the traditional Thai textiles, which suggests that the market share of *Paa Sin Dteen Jok* from Haad Siew subdistrict can still be expanded. Awareness of the population on the production process also affects the interest of the 100% traditionally handcrafted textiles, while only half of the population is aware of the production process. This signifies that if larger portion of the population gained awareness of the traditional production process, then it is likely that interests towards such product can be stimulated. The majority of the population is also willing to pay at greater prices for handcrafted textiles, indicating that product of such has higher value for the public. Even though the handcrafted textiles are more complex to produce, but with higher price and therefore higher profit margin, which would go straight to the local producers, there is higher intensive to resume the traditional processes in order to produce these handcrafted textiles.

4.2 Objective 2: To recommend effective persuasion methods aim to increase public appreciation of 100% handcrafted Paa Sin Dteen Jok

This section explains the effectiveness of the printing media by using information gathered from the research papers, brochure was found to be popular among the textiles industry. The team then analyzed the strengths, weaknesses, opportunities, and threats of the brochure, displayed in Table 4.2.2-1. Confirmation of the weaknesses and threats of the brochure was then confirmed by primary research method, questionnaire survey. The results below explain how the team came to these conclusions.

4.2.1 Research on brochure

Printing media is one of the oldest forms of advertising and promoting methods that is popular, it can reach a wider target group and more reliable comparing with other media. There are various types of printing media, which are successfully utilized to promote an organization, business, event, product, or service (Buzzle, 2015).

According to Patcharawan Limrattanamongkol et al. who has made a research on The Decision of Purchasing Hand Woven Cotton of Generation Y in Bangkok area in the Journal of Finance Investment Marketing and Business Management Vol.2, Issue 3, they have found that brochure is the most widely used to promote the marketing of textile products. The brochure is one type of printing media that can be used in marketing plan, which is a professional and effective method in providing information in order to promote products or services to target group. However, as the team would like to consider all aspects of the effectiveness of the brochure, the team thoroughly analyzed the attributes brochure as a printing medium with the use of the SWOT analysis.

4.2.2 SWOT Analysis of brochure

The information gathered from research on the effective of brochure allowed us to develop a SWOT analysis of the brochure. This analysis, shown in Table 4.2.2-1, lists the strengths, weaknesses, opportunities, and threats of the brochure. As part of our SWOT analysis, we analyzed some of the effective of brochure comparing with other types of printing media.

Table 4.2.2-1: SWOT analysis of brochure

Strengths	Weaknesses
<ul style="list-style-type: none"> ❖ Extensive information input ❖ Images can be inserted 	<ul style="list-style-type: none"> ❖ Difficult to manage the right amount of information ❖ Excessive information may disinterests audiences
Opportunities	Threats
<ul style="list-style-type: none"> ❖ Distributed at the right venue, the message could easily reach target group 	<ul style="list-style-type: none"> ❖ Likely to be thrown away instantly since Thai audiences lack interest in reading* <p>*In 2013, National Statistical Office of Thailand stated Thai citizens are reading on average of only 27 minutes per day.</p>

From the table 4.2.2-1, the SWOT analysis suggests that though brochures are sufficient in terms of information incorporation and directly reaching target audiences, but with the lack of interest from audiences, such print media may not be the most effective medium in delivering information.

The team then confirmed the presence of the weaknesses and threats of brochure with the sample population in Bangkok, Thailand.

4.2.3 Confirmation of the weaknesses and threats of brochures

Finding#1: Excessive information on brochures can disinterest audiences

Apparently, from the survey question; *“Does the length of the message in the printing media affect your interest?”*, of 30 participants, 29 participants or 97% are positive that the lengthy messages disinterest them. Hence, compact messages shall be used to deliver only essential information to the public to capture their first attention. Further information shall then be integrated via links of website or other sources to provide additional information for audiences with interest.

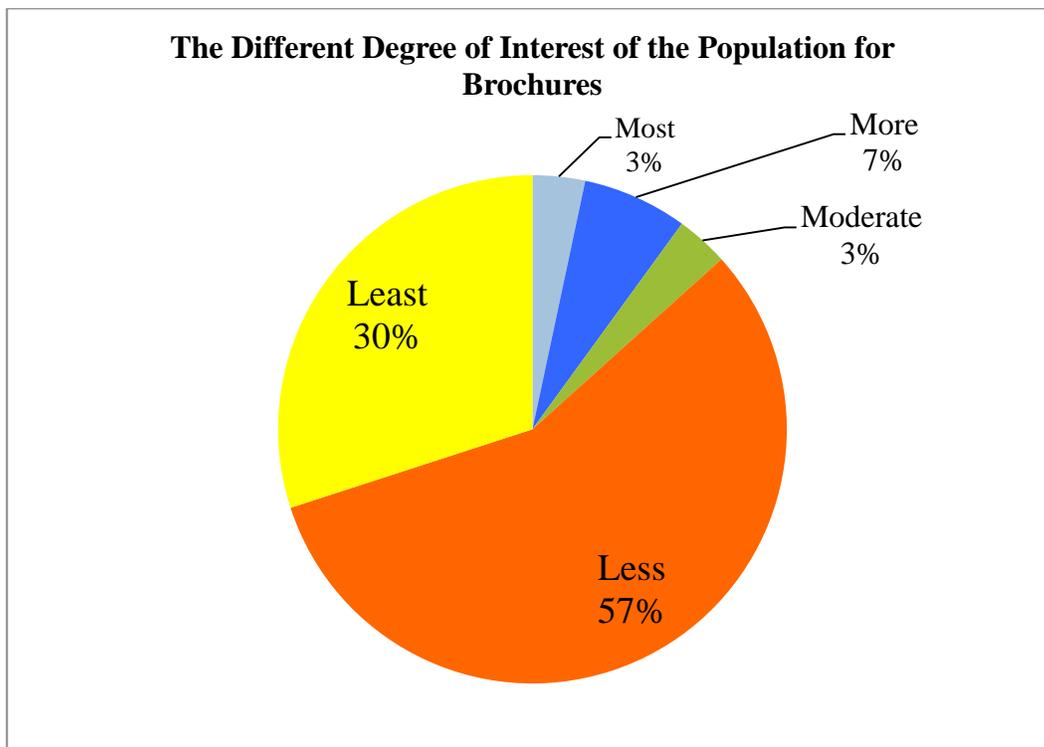


Figure 4.2.3-1 The distribution of the population with different degrees of interest for brochures

Finding#2: Most of the public is not interested in brochure

According to the weaknesses and threats of the brochure, our team has conducted a questionnaire survey, the first question in the questionnaire (section 2) *“When you received a brochure, how much interest do you normally have toward them?”* (see Appendix C) was used to analyze the perception of the audiences for brochures. Results in Figure 4.2.3-1 show that 87% of the 30 participants or 26 participants answered that they have either less or least degree of interest in brochure they have been handed.

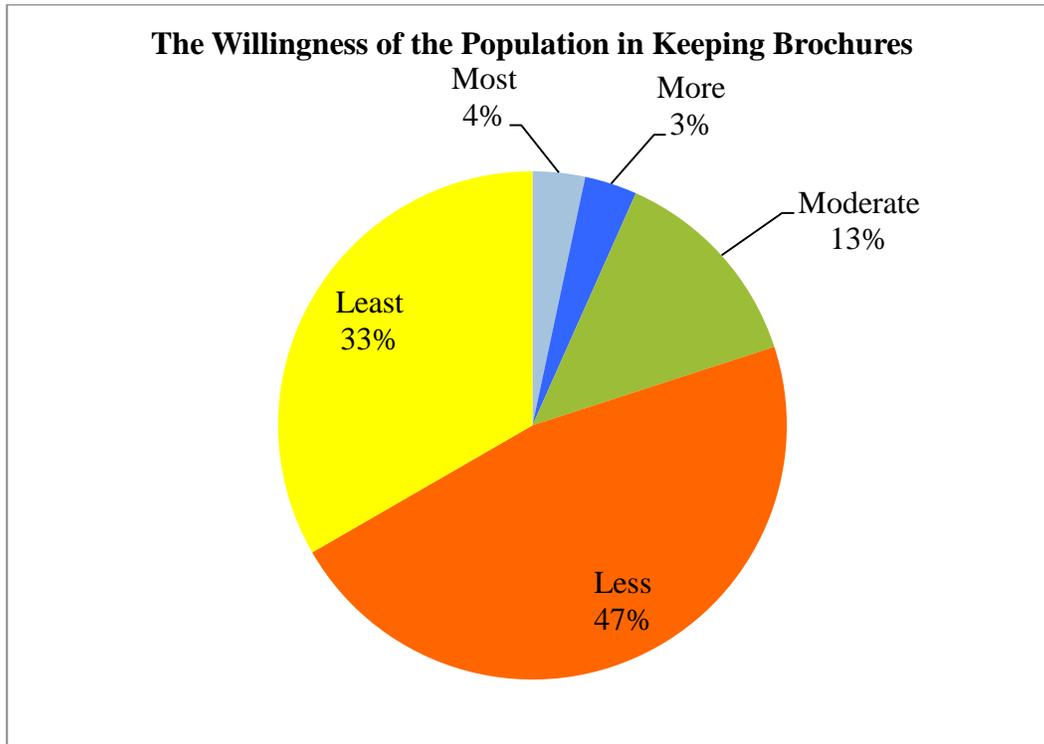


Figure 4.2.3-1 The distribution of the population with different degrees of willingness in keeping brochures

Finding #3: Majority of the public does not consider keeping the brochures they were given

However, the second question (section 2) from our questionnaire survey (see Appendix C); “*When you get a brochure, how much do you consider keeping it?*”, we have found that, of 30 samples, 24 samples or 80% consider least and less in keeping the brochure. This suggests that majority of the public is likely to bin the brochure once they received it.

4.2.4 Resolve the weakness and threat by using another printing media (bookmark, postcard)

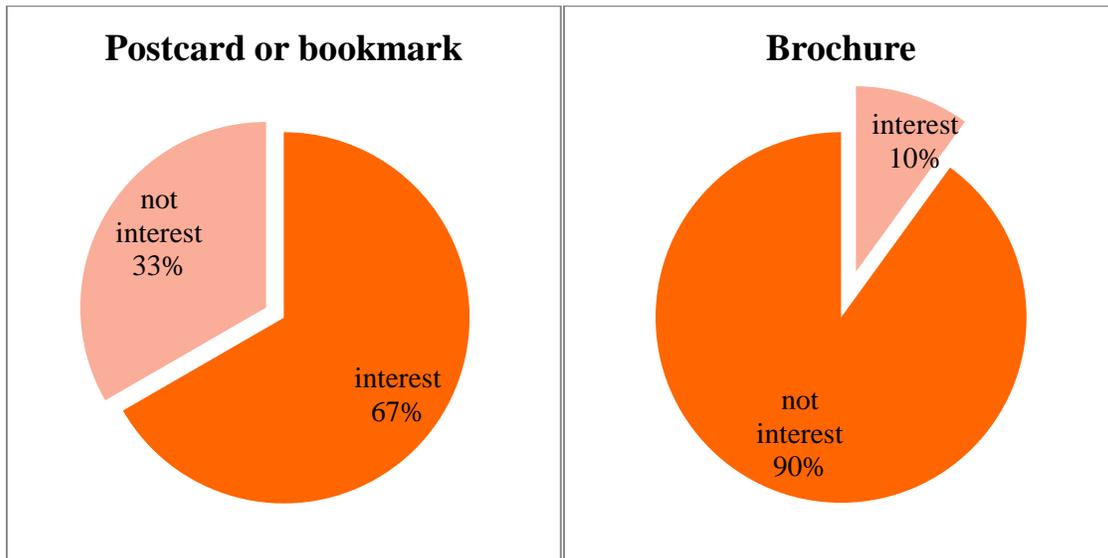


Figure 4.2.4-1 The distribution of the population with interests in different types of printing media

Finding #4: Majority of the public has higher interest towards printing media of postcard and bookmark more than brochure

The team has found that of the 67% or 20 samples who are interested on postcard and bookmark while of the 10% or 3 samples that are interested on brochure. The difference in the public's interest on postcard and bookmark is 57% higher than that of brochure. The data suggests that public is more interested on other printing media like postcard or bookmark, which contains more compact information and has other function. However, from the question in section 4 in our questionnaire survey (see Appendix C): *"Which type of printing media you are more likely to keep?"* The results state that 90% of the participants chose either postcard or bookmark (60% and 30% of the participants chose postcard and bookmark, respectively), leaving only 10% that chose brochure.

4.3 Objective 3: To identify problems and limitations of the traditional handcrafted production process of Paa Sin Dteen Jok

After successfully completing the methodology described in section 3.3 of the methodology section, the team has identified that the cotton spinning process is the main cause of the problems and obstacles with the traditional handcrafted production process. This was determined by analyzing the information given from the methodology

conducted which is interview and observation. The findings from this part would lead to the subsequent objective which is to develop and encourage the *Paa Sin Dteen Jok* 100% handcrafted production process.

4.3.1 The Weaving Process: Interview and Observation of Haad Siew villagers at Haad Siew Weaving Center

Aside the information gathered during the literature review process, the team conducted interview and observation to get details on the problems of the traditional handcrafted production process directly at the site of production.

The staffs at the Haad Siew Weaving Center illustrated the traditional production process which was observed carefully by the team. As the team already conducted research previously before visiting the site, the process matches what the villagers actually demonstrated to us. Overall there are two main set of procedures that the weavers demonstrated which are the preparation the cotton yarn and the process in weaving the *Paa Sin Dteen Jok* textile. From the observation, the team found that it is quite laborious to prepare the cotton yarn compared to the weaving process which does not require as much physical input. Most of the steps in the cotton yarn production involve the weavers sitting on the floor and performing the procedures that require constant hand movement.



Figure 4.3.1-1 A photograph, taken at the Haad Siew Weaving Center, illustrating the ‘*Khen Fai*’ or traditional cotton spinning process

When the artisan started to illustrate the cotton spinning process (*Khen Fai*), she expressed that this step is the most difficult step in the cotton preparation process. Additionally she mentioned that it takes years to master this step. We also observed that the weavers performing the cotton spinning process had to sit in an uncomfortable position, which involves one leg holding the wooden cotton spinning device while one hand reaches to pull the yarn and the other reaches out to turn the wheel. The artisans

performing this step were asked if they were uncomfortable sitting this way and they replied that if they perform this step for too long, they would have back and leg pains.

During the interview, questions were asked on the detail overall production process and the problems encountered it in order to help support the information we analyzed from the observations. Ms. Raveewan Khanadnid, the Manager of Haad Siew Weaving Center, which is also known for Suntime Weaving Center, at Sukhothai was the interviewee and from her interview (Appendix I), the team has analyzed the main points and themes that Ms. Raveewan has made to answer the team's objective. *“The overall traditional process requires training to be proficient at it. The hardest part of the whole process is the Khen Fai (Cotton spinning process), which is more complicated than the other processes and require training from a young age.”* This statement from Ms. Raveewan confirms the observation that the team has made that the cotton spinning process is the most difficult procedure of the traditional production process. *“It is also the process that takes the longest time to complete which comes with the health risk of back pain problem. Overall, the other procedures such as Aew Fai, Ying Fai, and Lom Fai is easily to do but is also quite laborious.”* This excerpt from the interview also informs the observation the team has made on that the process is laborious and that it may come with physical health risks.



Figure 4.3.1-2 A photograph taken at Haad Siew Weaving Center while the team was interviewing Ms. Raveewan Khanadnid

In addition, Ms. Raveewan also detailed the other minor problems emerging from the traditional production process. The unprocessed cotton flowers, the raw material of *Paa Sin Dteen Jok*, is no longer grown by the locals like it had been in the past. *“We order our ready-made cotton yarn from factories which process cotton flowers into ready-made yarns at the ratio of 6:1 kg”*. The cotton used are not grown by the locals themselves but are brought from factories that has already processed the cotton flowers into a workable form. *“Currently not enough people now grow cotton as they moved to*

grow sugar cane instead.” The local agriculturists no longer cultivate the cotton plants in their farms, as it is not as profitable than other kinds of crops. Hence, the actual cotton flowers are then not available to be processed via the traditional production process into cotton yarns.

Limitations:

The general limitation for this section is that the sample size was limited for only members and staffs at the weaving center. If the team can conduct additional observation at the nearby textiles shop called Sathorn, the team could get additional information and opinion from more sources.

Conclusion:

From the findings that the team has gathered, it has been concluded that the main problem with the traditional handcrafted process is that the process is too laborious, which also affects the health of the artisans, and ineffective as the duration of the process is too extensive.

4.3.2 The problems and obstacles affecting the villagers: Interview weavers at Haad Soong Village

The team conducted interview at the Haad Soong village (Appendix F) in order to determine the effects of the problems and limitations on the local weavers. The team interviewed 6 of 30 or 20% of the active weavers from the village, due to the availability of the villagers. The team has analyzed the transcript to find the main themes from the answers the villagers have given.



Figure 4.3.2-1 Photograph taken at a Haad Soong villager’s house while she was weaving *Paa Sin Dteen Jok* with a traditional wooden loom

Most of the interviewees is currently not weaving the traditional *Paa Sin Dteen Jok* textiles and patterns but are weaving the easier variants of textiles. Only one of the villagers in which the team interviewed is still weaving *Paa Sin Dteen Jok* while many of the villagers are weaving the '*Paa Yok*' textile that uses the brocade weaving technique which is a much faster and simpler to weave than *Paa Sin Dteen Jok* but can be sold at lower prices.

The team has analyzed the main points from the interview, which are firstly that every weaver started learning the weaving technique since they were young. "*Since I was young, I watched and learned it from my mother*" (Villager C). Most of the weavers weave as their side job, whilst the elder villagers are those who have retired weave as a hobby. "*I do this as a side job, my main job is as the villages' nurse*" (Villager E). The villagers make their own cotton similarly to the weavers at Haad Siew Weaving Center. They buy either synthetic yarn or machine made yarns from the market to use in their textiles. "*The yarns that I usually use are from the market since I am only using synthetic yarn*" (Villager A).



Figure 4.3.2-2 Photograph taken at a Haad Soong villager's house while she was weaving *Paa Sin Dteen Jok* with a traditional wooden loom

When the team asked the question on why they did not choose to weave *Paa Sin Dteen Jok*, the answer mainly are that the process is difficult, takes long time to finish, not worth the effort. "*I do not weave Paa Sin Dteen Jok because I prefer to weave using Paa Yok since it is not as tiring*" (Villager E). These statements address the same notion. Altogether the problems and obstacles of the *Paa Sin Dteen Jok* traditional production process were emphasized to be the foundation, which deters the artisans' preferences in weaving such complicated textiles. Alternately, artisans then favor weaving other types of textiles, which are easy to fabricate, or buying the factory made cotton yarns and synthetic yarns instead of handcrafting the entire process by themselves.

Limitations:

The interview was conducted only at Haad Soong Village, the team could get more information if interview was conducted at other weaving villages in Sukhothai to get more samples, but due the time constraint the team was unable to do so.

Conclusion:

The conclusion that the team received from this interview fulfills the heading by finding how the problems and obstacles in the *Paa Sin Dteen Jok* production process affect the villagers. Villagers are affected by the problem of the traditional production process being complicated, time consuming and laborious. These factors cause them to turnaway from fabricating *Paa Sin Dteen Jok* the traditional handcraft production process or completely alternate to weave other types of textiles which they are more at ease with.

4.4 Objective 4: To determine ways to preserve the unique handcrafted procedures of indigenous *Paa Sin Dteen Jok* within the Haad Siew community for the next generations

From archival research, team has found the cotton-ginning model called ‘Medleri Charka’. This name originated from the name of the village in India that invented and developed them. The model was invented by cooperation of weaver and ginner in Medleri village, India Development Service and The Transfer of Technology for Development, TOOL/SAWA, Switzerland.

In 1996, Regional information service center for Southeast Asia on appropriate technology (RISE-AT) belong to Science and Technology Research Institute Chiang Mai University asked for permission to build this machine. The purpose of this is to develop the production process of Thai textile due to that the traditional production process was unable to effectively fulfil the requirement of the amount of cotton yarns needed by the weavers.

The machine was first built in Thailand by local artisan under control of TOOL/SAWA engineers. The trial shown that Medleri Charka is efficiency in cotton ginning when compare with traditional tool. For example, it can produce varied size of yarn (small, medium and rough) which each of them can be used in different ways thus weavers can expand more production line. Ms. Nittaya Mahachaiyawong, a manager of knowledge and technology center for northern textile (*Fai Gaem Mai*) from Science and Technology Research Institute Chiang Mai University said *“This model not only help in production process but also improve the health of the weaver by having the right ergonomic support that has the design to support their back while working. However, the limited of how this machine works is quite different from traditional tool so the weaver*

might need time to learn to be familiar with it. Furthermore this model still needs development to make it more suitable for Thai Textile.”

Nowadays, this model is available to order. Most customers that bought this model are in Laos and Myanmar. In Thailand, this model was sold to The Queen Sirikit Department of Sericulture. The price is about 6,000 baht each and she also mentioned that for around 10 years that she has been developing and selling Medleri Charka, there has not been a problem reported from her customers on this model.

CHAPTER 5: Conclusions and Recommendations

This chapter will present a summary of the key findings of the project and provide suggestions on the ways to preserve *Paa Sin Dteen Jok*, one of Thailand's cultural heritages. Through our research and field visits, we have learned the importance of *Paa Sin Dteen Jok* toward Thai people and believed that this heritage shall be preserved for the next generations. The team has developed recommendations for the Sukhothai College of Dramatic Art, the villagers of Haad Siew subdistrict, the Haad Siew Weaving Center, and relevant authorities. Our recommendations are based on the analysis of our findings from the previous chapter.

5.1 The public perceptions for Thai handcrafted textiles

From research survey the team conducted on 582 recipients, team has found several verdicts. The key findings include:

- ❖ Majority of the public has purchased traditional Thai textiles before
- ❖ The elder population (> 35) and population with higher salary (> 20,000 Baht) are more probable to purchase Thai textiles
- ❖ Over half of the public is unaware of the traditional handcrafted Thai textiles
- ❖ Over half of the public is unable to distinguish the difference between hand-spun cotton yarn to the mill-spun
- ❖ Majority of the public prefers hand-made production process over machine-made
- ❖ Majority of the public is willing to pay at greater prices for 100% handcrafted Thai textiles
- ❖ Awareness of the traditional handcrafted production process can positively affect the preference of the Thai handcrafted textiles

These findings suggest that there is an existing Thai textiles market that *Paa Sin Dteen Jok* of Haad Siew can expand their market share into. The approach on producing traditional handcrafted *Paa Sin Dteen Jok* is likely to thrive, as there is a present demand for the handcrafted Thai textiles, in which is also willing to pay at greater prices. In addition, the awareness of the traditional handcrafted production process could result in an increase appreciation for the Thai traditional textiles and consequently, higher the public's preference for such textiles.

5.2 Effective printing media

Through the research data from survey on 30 participants, team learnt that the lengthy messages on printing media disinterest the audiences. Also, the public appears to have better interest for more functional printing media such as postcards and bookmarks. Therefore, delivering essential yet compact messages via postcards and bookmarks could capture the attention of the audiences more.

5.3 Limitation of the traditional production process

The cotton spinning process is the most problematic procedure within the traditional production process of *Paa Sin Dteen Jok*. Despite the complicated procedure which require extensive skills, artisans also have to sit in a health destructive posture while performing the procedure, in which demotivates them to pursue these traditional processes.

5.4 Recommendation for the Sukhothai College of Dramatic Art

Our sponsor, the Sukhothai College of Dramatic Art, set a mission to preserve, maintain, and publicize traditional Thai culture. The following recommendations based on research conducted by the team are potential ideas and strategies that could aid in the preservation of *Paa Sin Dteen Jok*.

Arranging field trips for college students to visit the Haad Siew Weaving Center

‘Jok’, a distinctive technique used to fabricate *Paa Sin Dteen Jok* of Haad Siew subdistrict, is one of most well known heritage culture of Sukhothai, hence, is needed to be preserved. The team would like to recommend the Sukhothai College of Dramatic Art to operate regular field trip to Haad Siew Weaving Center as feasible and effective mean to stimulate and attract new generations to gain interests and appreciation for this unique tradition and culture. Field trips would allow the students to observe the actual production process and get a chance on a hands-on experience, which may stimulate their enthusiasm. Since the college presently has a Thai dance performance illustrating the traditional production process of *Paa Sin Dteen Jok*, having the opportunity to observe the actual process would allow performers to get a better understanding of what they are performing. Additionally, if this approach was implemented, it is likely that once the new generations become appreciative for the handcrafted *Paa Sin Dteen Jok*, they would cherish and treasure the culture more. If only one of those participants become inspired by the activity and would like to weave *Paa Sin Dteen Jok* either as a hobby or as a career, the course shall be considered successful.

Collaboration of the sponsor with the Sukhothai Technical College on the development of alternative facilitating devices

As illustrated by the team's research, the traditional production process of *Paa Sin Dteen Jok* is a considerably time consuming process which also cause negative health effects. The team discovered some innovatively developed models of the equipment that can replace the ones used in the current process with potential to alleviate the physical hardship problems. As the Sukhothai Technical College already has expertise in the relevant fields, the sponsor could ask for their assistance to develop facilitating devices to relieve the problematic traditional process. Since purchasing such devices from other manufacturers would only mean higher investment costs for the local artisans, developing the device internally would provide bargain alternatives to the local textiles producers.

Launching campaign for the use of Paa Sin Dteen Jok

In order to revive the traditional Thai culture, we would recommend the Sukhothai College of Dramatic Art to launch a campaign to stimulate the use of *Paa Sin Dteen Jok* to their students and staffs. This is an idea that is presently used by the government to encourage the public, especially government officials, to wear clothes made from Thai fabric every Friday. The campaign aims to preserve Thailand's cultural heritage and promote Thai wisdom, creativity and craftsmanship. (The Government Public Relation Department, 2013) In January of 2015, Chaiyaphum provincial government also established similar campaign to effectively stimulate the use of Thai textiles to the new generations. The campaign was meant to encourage college students to wear Thai *Paa Sin* to school on every Buddhist holy days. As nowadays, Thai fabrics are not being used as often as it had been in the past and thus, they can hardly be seen in everyday lives, the best approach is to slowly let Thai fabrics become the norm and integrated into the casual attire. These campaigns would allow new generations to become familiarized with the traditional textiles and may, in the end, adopt the appreciation for this heritage culture. Once the students of the Sukhothai College of Dramatic Arts embrace the campaign, the college may as well try to induce other colleges and organizations in the area to join the hype.

5.5 Recommendation for the Haad Siew Weaving Center in Sukhothai

Launching Paa Sin Dteen Jok learning centers in the city of Sukhothai

As the current Weaving Center in Sukhothai province is located in Si Satchanalai district, which is about 1 hour (60 kilometers) away by car from Sukhothai city (Amphoe Muang Sukhothai), the team would like to encourage the Haad Siew Weaving Center to set up a new center at tourist attractions like the Sukhothai Historical Park in Amphoe Muang Sukhothai as well. This way, the center will be more accessible to a larger

number of populations including not only the foreign and domestic tourists but also the residences that are more densely populated in Amphoe Muang Sukhothai.

Utilizing facilitating device(s)

The team insists that facilitating device(s) shall be utilized in order to ease the traditional production process. This would allow the local artisans to perform the procedures with better posture and higher productivity. In turn, these utilities could encourage more apprentices to pursue the tradition. Nevertheless, the traditional devices shall still be used occasionally and shall not be solely substituted by these labor saving devices.

The potential facilitating device the team has found and would like to suggest is the cotton spinning device, ‘Medleri Charka’, which was redeveloped and distributed by Chiang Mai University, Thailand. The device is presently commercially available, which has already been sold to the Queen Sirikit Department of Sericulture and also various weaving villages in Laos and Myanmar.

In addition, if the weaving center later identified that the devices require specific needs according to the locals on modifying the devices, the Weaving Center could seek assistance from the Sukhothai Technical College to modify more labor saving devices according to the needs.

5.6 Recommendation for the relevant authorities

Our research and findings show that the efforts from the relevant authorities on *Paa Sin Dteen Jok* is not yet sufficient, comparing to the traditional silk products which has been revitalized with the assistance of certain authorities. Examples of the authorities that we aim to recommend are the government, provincial administration or certain governmental departments that is associated with traditional culture and arts. The following are several ways in which these authorities can direct their effort toward.

Initiation of a certifying standard of quality for cotton weaving products

According to Nutthida Sirivoravet (Chiang Mai University, 2013), factors that significantly influence the purchase decision of general Thai textile consumers is not the perceived quality of products, patterns, nor the claimed raw materials usage, but the reputation of the particular shop or the producer or the product. Better reputation can be achieved from the awards received from the government, for example the five stars distinguish given to prestige OTOP products (One Tambon One Product, a local entrepreneurship stimulus program), or simply any trademark or verification guaranteed by well-trusted organizations or public figures. The Royal Peacock logo for Thai silk, a trademark, which was granted by the Queen Sirikit Department of Sericulture, Ministry of Agriculture Thailand, is one of the successful examples. With the Royal Peacock logo, Thai silk products can be categorized into many grades according to the authenticity of

the production process and the raw materials used. These grades will then determine the price range and prestigeness of the particular piece of Thai silk.

If the similar quality standard can be established for the Thai cotton textiles industry, the producers will be able to gain trust from consumers more easily. Thus, the demand towards the Thai cotton textiles such as *Paa Sin Dteen Jok* can then be stimulated more effectively.

Establishment of a ‘Dteen Jok Haad Siew Day’ campaign

As this is a large campaign to conduct, it is vital firstly create a trend in preserving traditional culture. For an initiation, the provincial government could start with promoting their residences to wear *Paa Sin Dteen Jok* on a certain day for once a week to create a rage for the heritage cultures. Once this is successful, subsequent larger campaigns could be conducted

Presently, Mae Cham district, Chiang Mai province, has already succeeded in arranging an annual *Dteen Jok* Mae Cham Festival, which is held during the first week of February of every year. In this festival, the local shops will exhibit their local products including the *Paa Sin Dteen Jok* of Mae Cham and several activities such as performances, textiles contests and games will be organized to entertain not only the tourists but the locals as well.

Likewise, the Sukhothai provincial government could adopt this idea to their own domain in order to promote both their province and their product, *Paa Sin Dteen Jok*.

Stimulation of the cotton cultivation in Sukhothai province

During the course of this research project, the team has found that there are no cotton flowers, the raw materials in *Paa Sin Dteen Jok* production, available within the area. By so, local artisans are unable to acquire the raw material to implement the production process from the very beginning procedure, consequently, they have to purchase ready-made cotton yarn from manufacturers instead. Through an interview with Mr. Wittawat, a textile expert at the Queen Sirikit Museum of Textiles, he stated that currently there is a non-profit program called The Royal Silk (ไหมหลวง) that was set up to support the locals to preserve traditional handcrafted Thai silk textiles. The program was initiated by Her Majesty the Queen and is now organized by The Support Arts and Crafts International Centre of Thailand or SACICT (ศูนย์ส่งเสริมศิลปาชีพระหว่างประเทศ). The goal of The Royal Silk program is to encourage the cultivation of mulberry to feed silkworms, which would, hand-in-hand, encourage the production of hand-spun silk yarn. These silk yarns will then be collected and distributed by the organization to the weaving villages, which have earlier joined the program, throughout Thailand.

The relevant authorities could adopt this concept and apply it to the Thai cotton textiles industry. By first providing land field for cultivation of cotton and grant the hand-

spun cotton yarn with promising prices. These cotton yarns can then be sold to the weaving villages in Sukhothai province and ideally to other provinces with demand.

Provision of informative archives on Paa Sin Dteen Jok through online media

Through research survey, the team found positive relationship on the awareness of the survey participants on the traditional production process of handcrafted textiles and the preference towards the handcrafted textiles. The team has analyzed that this relationship exists as once one is aware of the production process, one will perceive the value and would then have more desire for the handcrafted textiles.

Nowadays, it is undeniable that the online media has high impact on the world of business and marketing. Hence, the relevant authorities shall then make use of the uncostly medium that could reach wide range of audiences without geographical barriers, such as the online media, to stimulate the demand and awareness of the *Paa Sin Dteen Jok*. As *Paa Sin Dteen Jok* is one of the few provincial renowned goods, the relevant information in forms of videos and informative passages of *Paa Sin Dteen Jok* should then take at least a section within the provincial tourism website. The information that shall be integrated, both in English and in Thai, into the website should include the general and historical facts, production process and the unique characteristics of *Paa Sin Dteen Jok*. The authority can collaborate with the Sukhothai College of Dramatic Arts to develop the integrated information. The college may as well incorporate videos of their Thai dance performances that illustrate the traditional production process of *Paa Sin Dteen Jok*. This set of information would allow audiences to gain an in-depth understanding of *Paa Sin Dteen Jok*, as a result, awareness and appreciation towards the Thai wisdom and culture can be raised. Consequently, more interest and demand of the public will then be geared towards *Paa Sin Dteen Jok*.

Distribution of the suggested printing media; postcards and bookmarks

According to the analysis the team has conducted based on both primary and secondary research, functional printing media with short messages are more likely to capture the interests of the public. Correspondingly, the team aimed to deliver essential messages and information through such printing media. These printing media can then be distributed to information kiosks or ticket stalls at different tourist attractions, hotels, and restaurants in Sukhothai to continuously and repetitively accentuate the presence of such traditional textiles. The followings are the prototype of the printing media the team has chosen and designed.

❖ **Postcard**

As postcard has vaster dimensions, larger images can be integrated. The team then recommends images of the production process of *Paa Sin Dteen Jok* along with essential description shall be exhibited on postcard.



Image of the
production process

'KHEN FAI' (Cotton Spinning)
a folk method used to convert cotton roving into workable cotton yarn
- one of the 12 procedures in the traditional production process of Paa Sin Dteen Jok -

Description of the
production process



การเข็นฝ้าย
ขั้นตอนดั้งเดิมในการผลิตเส้นด้ายจากปุยฝ้าย
- ๑ ใน ๑๒ ขั้นตอนของกระบวนการผลิตผ้าซิ่นตีนจกแบบดั้งเดิม -

English and Thai version of the postcard prototype (front view)

Preservation of the Traditional Handcrafted Paa Sin Dteen Jok of Haad Siew, Sukhothai

Paa Sin Dteen Jok traditional Thai textile
Haad Siew, Srisatchanalai, Sukhothai
www.hadsiew.com

Provincial tourism or relevant website to allow the public to seek further information



Dteen Jok patterns to emphasize the textiles even further

ผ้าไทยพื้นเมือง "ผ้าชิ้นตีนจก"
ตำบลหาเสียว อำเภอกศรีสนาสัย จังหวัดสุโขทัย
www.hadsiew.com



English and Thai version of the postcard prototype (back view)

❖ Bookmark

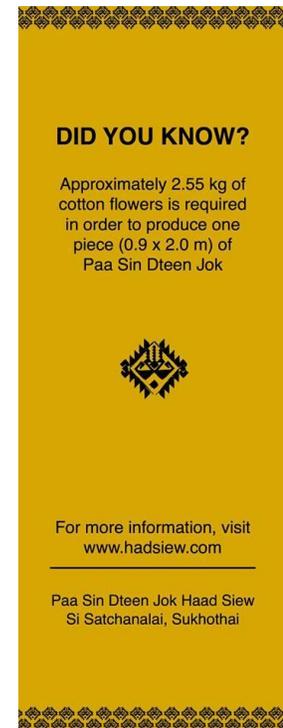
Due to the limitation of the space availability in bookmark, the team recommends integrating only the patterns of *Paa Sin Dteen Jok* to illustrate its beauty. Also brief yet interesting facts of *Paa Sin Dteen Jok* shall be included to create curiosity and capture the interest of the public. The potential facts could be for example ‘Did you know? It takes an average of one month to fabricate one piece of *Paa Sin Dteen Jok*’, ‘Did you know? Approximately 2.55 kg of cotton flowers is required in order to produce one piece (0.9 x 2.0 m) of *Paa Sin Dteen Jok*’



Front view of the bookmark prototype



Back view of the bookmark prototype in Thai and English



5.7 Final Remarks

Our project emphasizes the current perspectives of the general public towards handcrafted Thai textiles and also addresses the issues that caused the decline implementation of the Thai textiles traditional production process. The findings the team has obtained could provide future researches with helpful information. The recommendations the team has suggested are only potential approaches that could lead to an increased public's awareness, appreciation and therefore the popularity of the Thai textiles, *Paa Sin Dteen Jok*. With the reinforcement of many organizations, the team is convinced that the appreciation of the public for the handcrafted *Paa Sin Dteen Jok* can be boosted. As once the appreciation is increased, the demand is likely to increase as well. Thus, the locals would then have higher incentives to produce these handcrafted textiles, more product of such will then be available in the market to serve the demand. Accordingly, more capitals will then be circulated into the local economy system. As a result, not only that the handcraft production process of *Paa Sin Dteen Jok* can be sustainably preserve, but the local economy can also be sustainably kept alive.

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Appendix A: Sponsor Description

Our sponsor is Sukhothai's College of Dramatic Arts; they are currently trying to conserve the Thai textile '*Paa Sin Dteen Jok*' and are seeking for our assistance. On December 8, 1978, The Fine Art Department (Krom Silpakorn) considers to establish Sukhothai's College of Dramatic Arts in the regional province of Sukhothai. The site of construction was to be located in the new town part, specifically on the site of the deserted stadium positioned between Sukhothai Wittayakom School and Sukhothai hospital. On January 31, 1979, The Ministry of Education established Sukhothai College of Dramatic Arts which aims to widen the education of Thai dancing arts, arts of playing music, and Thai performance art. Afterward from 1979, the college began to open new courses such as primary Thai performing arts. Before the completion of the construction project (1979), the establishment conducted their learning and teaching temporally in buildings owned by Sukhothai Technical College. In the year 1980-1981, they used Sukhothai Wittayakom school building and up until 15 August 1982, they received further budget to finish the construction of their main building which nowadays is still being used by Sukhothai College of Dramatic Arts. Later, there was a reform in management, which leads to the Sukhothai College of Dramatic Arts being relocated to under the management wing of the building.

The mission of Sukhothai of Dramatic Arts can be concluded as to preserving and maintaining traditional Thai culture but in developing, inheriting, and publicizing traditional Thai culture to be well-known to the communities. In addition, to establish the research and innovation which would provide knowledge about arts and cultures that will be valuable for the society, and to become the outreaching center of art and culture in the province. One of the missions of the college is to preserve Thai silk called '*Sin Dteen Jok*' or '*Sin Haad Siew*' from Haad Siew subdistrict, Sukhothai province. *Sin Dteen Jok* of Haad Siew is the local textiles that clearly stands out and is highly exquisite in Thai communities. '*Sin Dteen Jok*' are originally three pieces of '*Sin*' splice and stripes pattern like *Sin Lanna Thai* and is mostly made from cotton or silk depending on which resources are readily available.

This topic is important to the sponsoring organization due to the fact that they are concerned about the traditional weaving process, which is currently endangered from being forgotten. Consequently they need to find ways to preserve and revive *Paa Sin Dteen Jok*, Sukhothai's traditional weaving heritage. There are two main reasons why the project is important to the sponsoring organization, first is the preservation of weaving process and second, is to revive the value of such heritage culture into the perceptions of the public by dancing to revive the public on their end. Preserva the process because they have dance performance. These traditional textiles bear unique characteristics; they

especially demonstrates the elegance of Thai textiles textures that never fail to capture the attention of their beholders. The weaving process of Thai textiles is normally passed down as the skills in each generation. In communities such as Si Satchanalai district, Sukhothai, the weaving techniques of *Paa Sin Dteen Jok* are passed and held within each family from parents to children. These communities also produce the products from for their own uses in various forms such as for religious ceremonies and general occasions.

There are many challenges in order to preserve '*Paa Sin Dteen Jok*' hence, the production process as well. Since, there are many difficulties to be considered from the beginning of the production process until the end when it finally reaches the consumers. Currently, Sukhothai's College of Dramatic Arts utilizes *Paa Sin Dteen Jok* in costumes for their Thai dancing art shows. However, this is still not enough to promote and raise the appreciation of the public towards such cultures as there is a limited group of audiences.

Today, there are less and less artisans who can weave *Paa Sin Dteen Jok* as the newer generations lack interest and appreciation for the traditional Thai culture. One important factor is that because the net income of the process is currently not worth the time investment. If *Paa Sin Dteen Jok* are to become popular and has to potential to make better profit, more people will be interesting in learning how to fabricate them. Hence, there would be more artisans to provide supply to serve this demand.

To address these challenges, our sponsor seeks assistance as we have knowledge in different aspects that could be applied into the production and marketing of *Paa Sin Dteen Jok*.

Appendix B: Survey on the public perspectives on Thai textiles (English and Thai)

Preservation of the Thai's cultural identity, "Paa Sin Dteen Jok"

This survey is one of the elements required to fulfill the
Interactive Science and Social Projects

Faculty of Science, Chulalongkorn University

Instruction: Please make ✓ in or fill the blank space.

Section 1:

1. Gender Male Female
2. Ethnicity Thai
 Others (Please specify)
3. Age
 Below 18 18-24 25-34
 35-44 45-60 More than 60
4. Occupation
 Student
 Civil servant
 Private company employee
 Personal business
 Retired/unoccupied
 Others (Please specify)
5. Salary (Baht)
 Less than 10,000 10,001-20,000
 20,001-30,000 30,001-40,000
 40,001-50,000 More than 50,000
6. Education
 Primary school
 Junior High School / Vocational Certificate
 Senior High School / High Vocational Certificate
 Bachelor degree
 Master degree and beyond

Section 2:

1. Have you ever purchased any traditional Thai textiles?
 Yes No
2. Are you aware of the traditional Thai textile production process?
 Yes No
3. If you were to buy traditional Thai textiles, which type would you choose?
 - 3.1 Raw material
 Natural silk/cotton pulled **by hand**
 Natural silk/cotton pulled **by machine**
 - 3.2 Weaving process
 Hand-made Machine-made
4. What is the factor(s) that influence your choice in Question 3? (More than 1 choice can be answered)
 Price Aesthetic
 Emotional values Ease of care
 Others (Please specify)
5. Would you pay more for a Thai textile product that is 100% handcrafted?
 Yes No
6. How many times would you pay more for 100% handcrafted Thai textiles product?
 Less than 2 times 2 times
 3 times More than 3 times

Thank you for your time - Faculty of Science, Chulalongkorn University-

แบบสอบถาม โครงการการอนุรักษ์สืบสานวัฒนธรรม “ผ้าจีนตีนจก”
แบบสอบถามนี้เป็นส่วนหนึ่งของวิชา Interactive Science and Social Projects
คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

คำชี้แจง กรุณาทำเครื่องหมาย ✓ ใน หรือเติมข้อความในช่องว่างที่ตรงกับความเป็นจริง

ส่วนที่ 1 ข้อมูลเบื้องต้นของผู้ตอบแบบสอบถาม

- เพศ ชาย หญิง
- สัญชาติ ไทย
 อื่นๆ (โปรดระบุ).....
- อายุ
 ต่ำกว่า 18 ปี 18-24 ปี 25-34 ปี
 35-44 ปี 45-60 ปี มากกว่า 60 ปี
- อาชีพ
 นักเรียน/นักศึกษา พนักงานรัฐวิสาหกิจ
 พนักงานบริษัทเอกชน ข้าราชการ
 ธุรกิจส่วนตัว เกษียณ/ว่างงาน
 อื่นๆ (โปรดระบุ).....
- รายได้ต่อเดือน
 ต่ำกว่า 10,000 บาท 10,001-20,000 บาท
 20,001-30,000 บาท 30,001-40,000 บาท
 40,001-50,000 บาท มากกว่า 50,000 บาท
- ระดับการศึกษา
 ประถมศึกษา มัธยมศึกษาตอนต้น/ปวช.
 มัธยมศึกษาตอนปลาย/ปวส.
ปริญญาตรี ปริญญาโทขึ้นไป

ส่วนที่ 2 ข้อมูลความพึงพอใจที่มีต่อผ้าไทยพื้นเมือง

- คุณเคยซื้อผลิตภัณฑ์ผ้าไทยพื้นเมืองหรือไม่
 เคย ไม่เคย
- คุณทราบกระบวนการผลิตผ้าทอพื้นเมืองหรือไม่
 ใช่ ไม่ใช่
- หากคุณมีโอกาสเลือกซื้อผ้าพื้นเมือง คุณจะเลือกซื้อผ้าแบบใด
3.1 วัสดุดิบ
 เส้นใยธรรมชาติ ปั่นมือ
 เส้นใยธรรมชาติ ปั่นโรงงาน
3.2 กรรมวิธีการทอ
 ทอมือ ทอจากโรงงาน
- ปัจจัยใดที่คุณใช้ในการตอบคำถามในข้อที่ 3 (ตอบได้มากกว่า 1 ข้อ)
 ราคา ความสวยงาม
 คุณค่าทางจิตใจ การดูแลรักษา
 อื่นๆ (โปรดระบุ).....
- คุณมีความประสงค์ที่จะจ่ายเงินเพิ่มสำหรับผลิตภัณฑ์ผ้าฝ้ายที่ใช้กระบวนการทำมือ 100% หรือไม่
 ใช่ ไม่ใช่
- คุณยินดีที่จะจ่ายเพิ่มเท่าไรสำหรับ ผ้าที่ผลิตด้วยกระบวนการทำมือ 100%
 น้อยกว่า 2 เท่า 2 เท่า
 3 เท่า มากกว่า 3 เท่า

ขอขอบคุณในความร่วมมือ - คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย-

Appendix C: Survey on the public perceptions for printing media (English and Thai)

Questionnaire about interest of printing media

Preservation of the Thai's cultural identity, "Paa Sin Dteen Jok"

This survey is one of the elements required to fulfill the Interactive Science & Science Projects

Faculty of Science, Chulalongkorn University

Basic information

Printing media: Brochure, Postcard, Bookmark

Question	Yes	No
Have you ever received printing media before?		
Do you know the difference between the many types of printing media?		
Does the length of the message in the printing media affect your interest?		
Does the usability of the printing media make you want to keep them more?		

Brochures

Question	Completely	Mostly	Somewhat	To a limited degree	Not at all
When you get a brochure, how much do you consider keeping it?					
How much interest do you have toward the brochures you received?					

Postcards and Bookmarks

Question	Completely	Mostly	Somewhat	To a limited degree	Not at all
When you get a postcard or a bookmark, how much do you consider keeping it?					
When you get a postcard or a bookmark, how much interest do you have toward them?					

Printing media

Question	Brochure	Postcard	Bookmark
Which type of printing media you are more likely to keep?			

แบบสอบถามความสนใจเกี่ยวกับสื่อสิ่งพิมพ์
 โครงการการอนุรักษ์สืบสานวัฒนธรรม “ผ้าขึ้นตีนจก”
 แบบสอบถามนี้เป็นส่วนหนึ่งของวิชา Interactive Science and Social Projects
 คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

ข้อมูลเบื้องต้น *สื่อสิ่งพิมพ์: โบรชัวร์, ไปรษณีย์, ที่คั่นหนังสือ

คำถาม	ใช่	ไม่ใช่
คุณเคยได้รับสื่อสิ่งพิมพ์ไหม		
คุณทราบความแตกต่างของสื่อสิ่งพิมพ์แต่ละชนิดไหม		
ความยาวข้อความในสิ่งพิมพ์มีผลต่อความสนใจไหม		
ประโยชน์การใช้งานมีผลต่อการเก็บสิ่งพิมพ์ไหม		

โบรชัวร์ (Brochures) *

คำถาม	มากที่สุด	มาก	ปานกลาง	น้อย	น้อยที่สุด
เมื่อได้รับคุณมีความต้องการเก็บโบรชัวร์มากแค่ไหน					
คุณให้ความสนใจกับโบรชัวร์ที่ได้รับมามากแค่ไหน					

ไปรษณีย์ (Postcards) และที่คั่นหนังสือ (Bookmarks) *

คำถาม	มากที่สุด	มาก	ปานกลาง	น้อย	น้อยที่สุด
เมื่อได้รับคุณมีความต้องการเก็บไปรษณีย์หรือที่คั่นหนังสือมากแค่ไหน					
คุณให้ความสนใจกับไปรษณีย์หรือที่คั่นหนังสือที่ได้รับมามากแค่ไหน					

สื่อสิ่งพิมพ์ (Printing media)

คำถาม	โบรชัวร์	ไปรษณีย์	ที่คั่นหนังสือ
สื่อสิ่งพิมพ์ที่คุณเลือกที่จะเก็บ			

Appendix D: Data analysis of the general public

Analysis of the surveys in Appendix B: Public perception surveys

***Numbered questions represent questions on the survey, followed by the collected data of each question.**

This section presents the demographic of the population according to each question conducted via offline survey at the Old Siam Plaza, MBK Center, Chamchuri Square and JJ Market. The total number of respondents was 326.

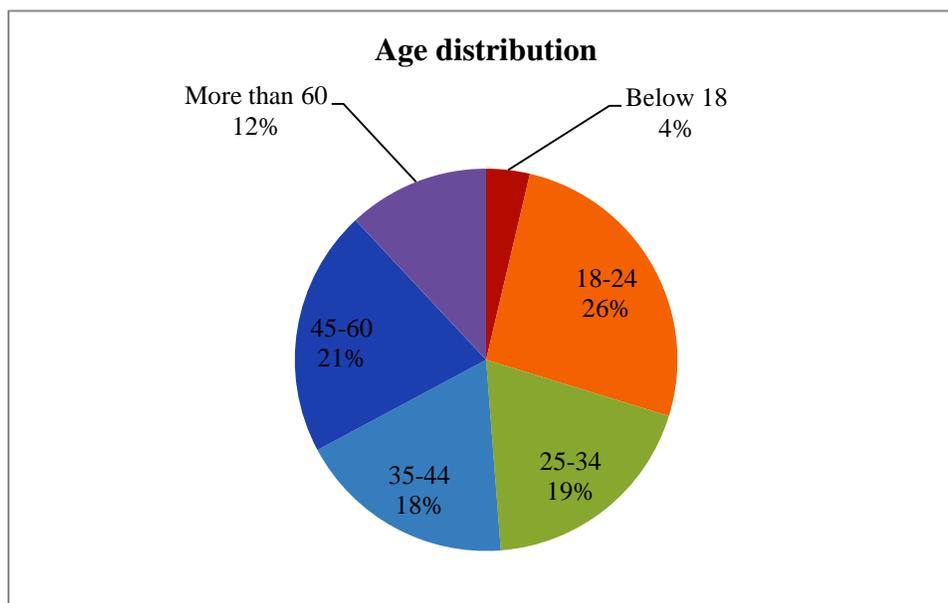
1. What is your gender?

The majority of the population was 62% female and 38% male.

2. What is your ethnicity?

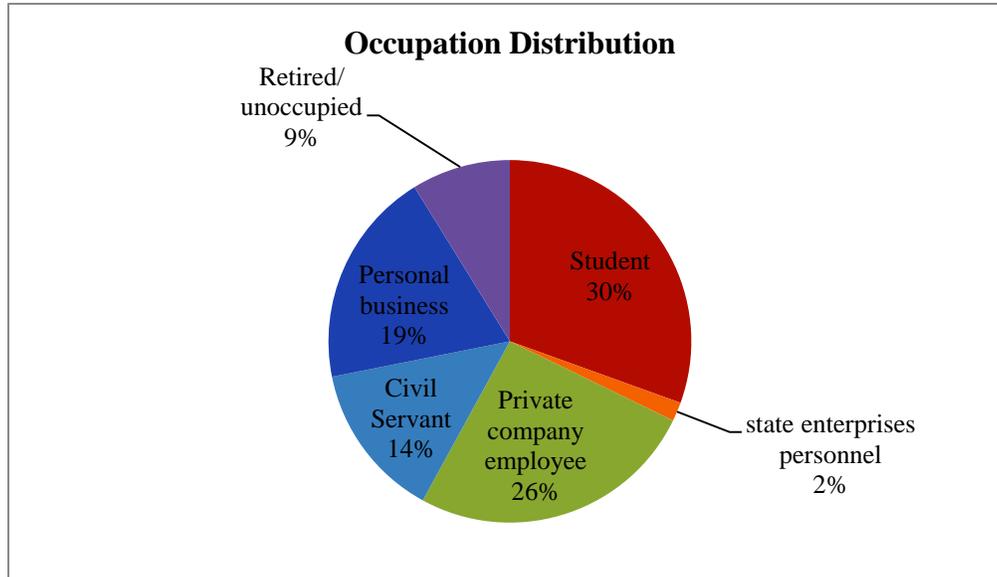
The majority of the population was 89% Thai and 11% Others.

3. How old are you?



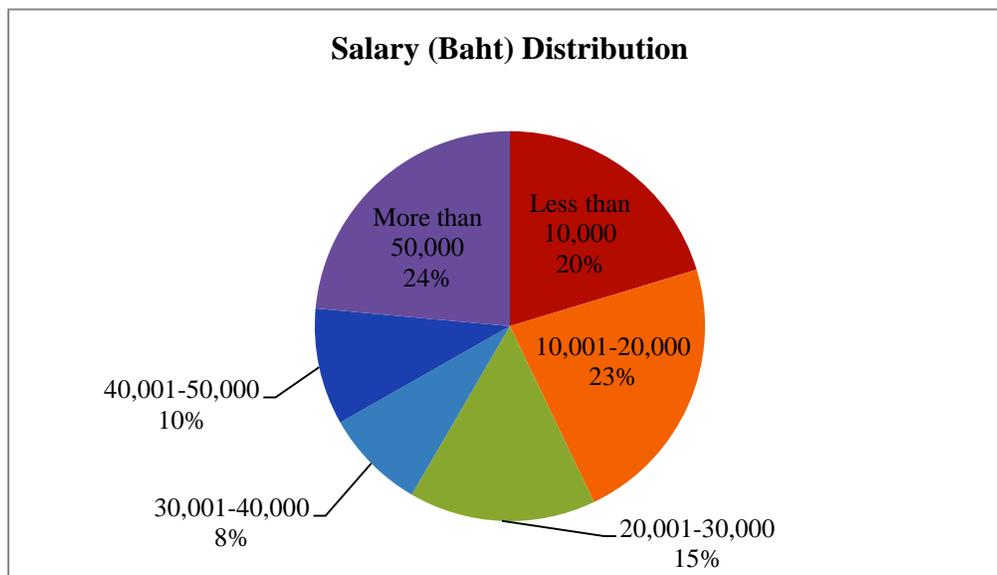
The majority of the population is within the age range of 18-24 years old (26%) and 45-60 years old (21%).

4. What is your occupation?



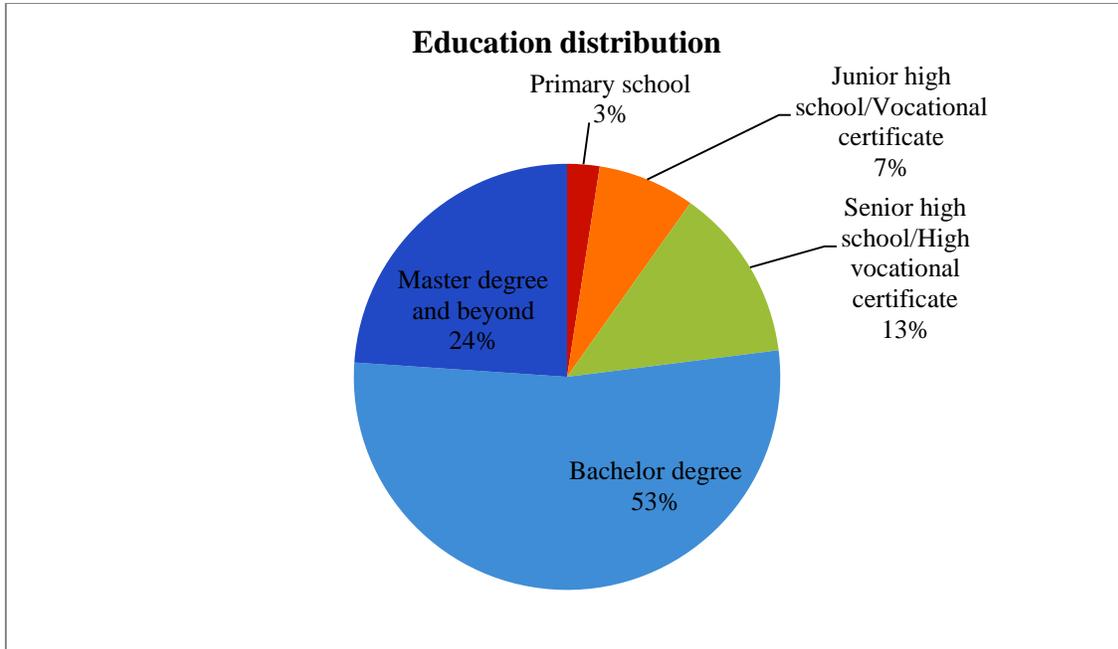
The majority of the population is 61% employed. 30% of the population is student and 9% is retired/unoccupied.

5. How much salary do you receive?



The majority of the population has income of more than 50,000 Baht (23%) and 10,001-20,000 Baht (23%)

6. What is your level of education?



The majority of the population (53%) graduated bachelor degree.

Analysis of the surveys in Appendix B: Public perception surveys

***Numbered questions represent questions on the survey, followed by the collected data of each question.**

This section presents the demographic of the population according to each question conducted via offline survey spread via Facebook Textiles Forums (ทอผ้าผ้าไทย and ผ้าและสิ่งทอไทย)

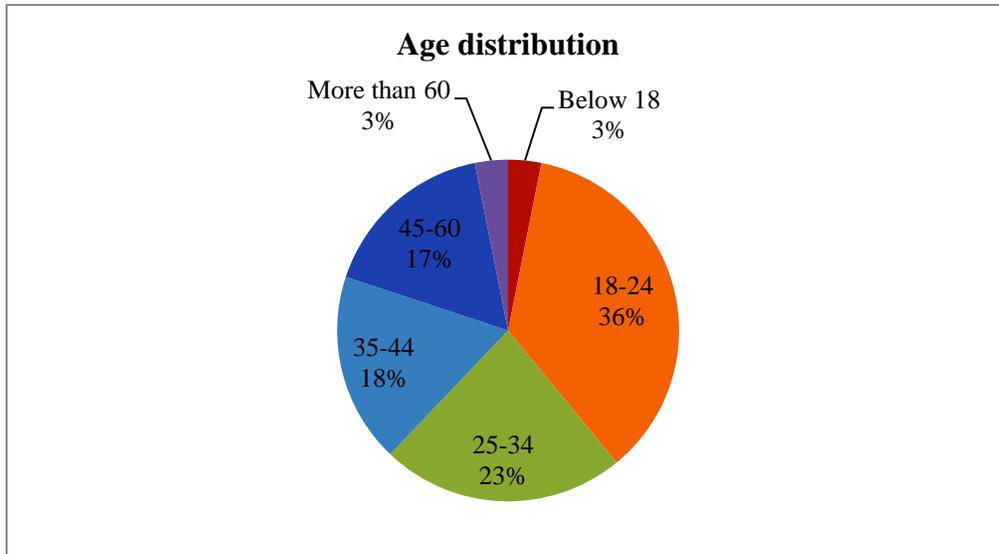
1. What is your gender?

The majority of the population was 66% female and 34% male.

2. What is your ethnicity?

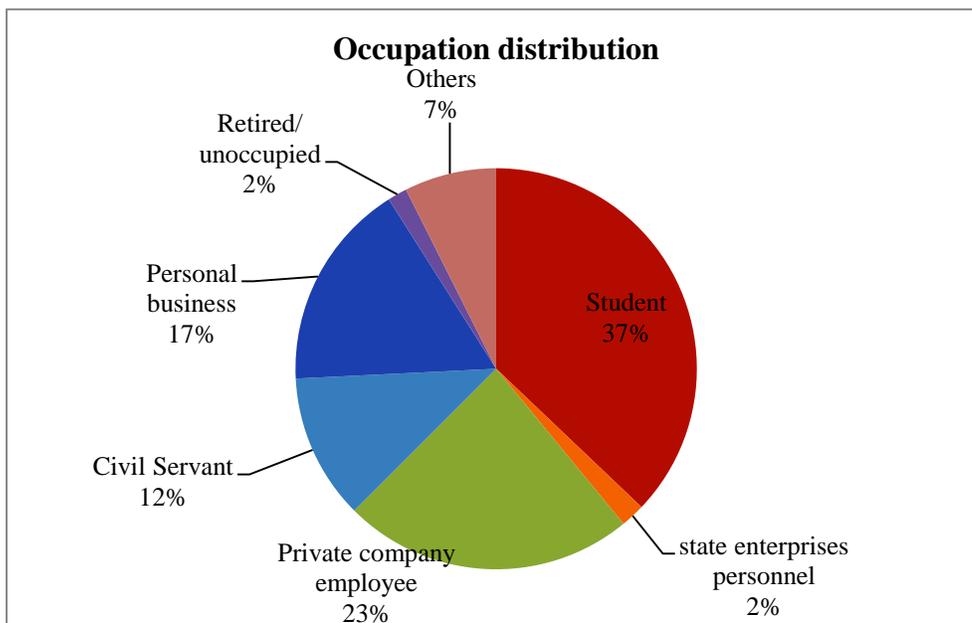
The majority of the population was 100% Thai.

3. How old are you?



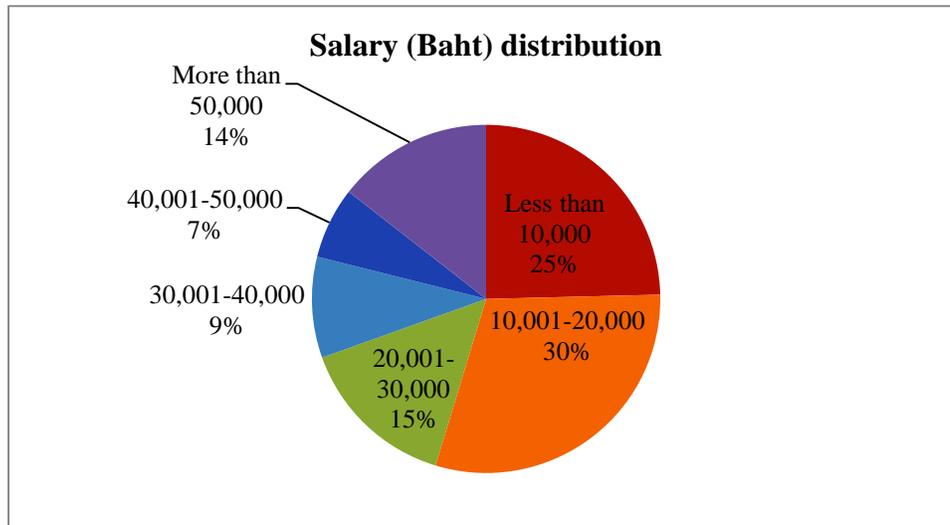
The majority of the population is within the age range of 18-24 years old (36%) and 25-34 years old (23%).

4. What is your occupation?



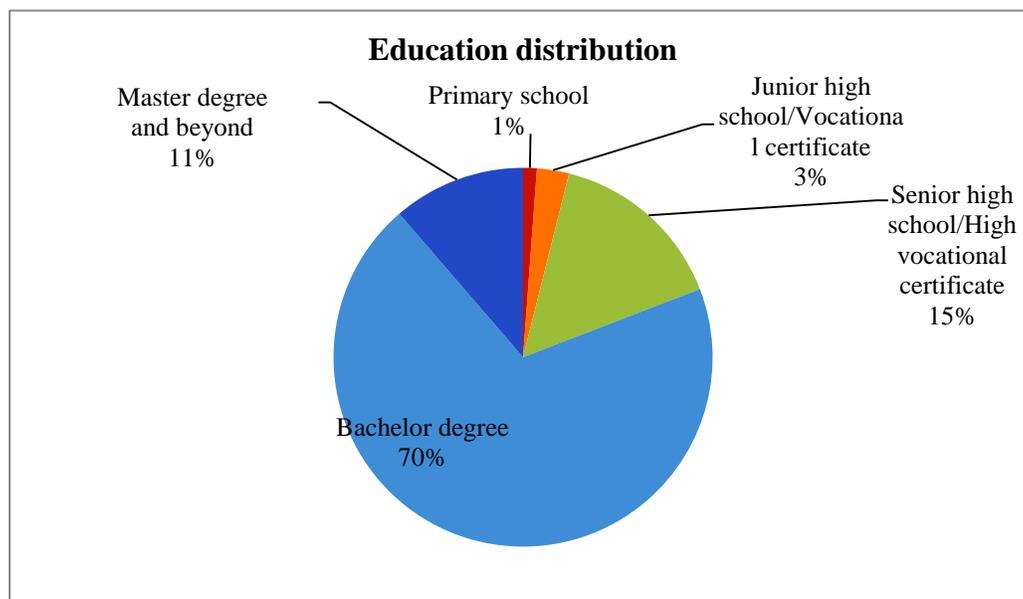
The majority of the population is employed (61%), while 37% is student and 2% is retired or unoccupied.

5. How much salary do you receive?



The majority of the population has income between 10,001-20,000 Baht (30%) and less than 10,000 Baht (25%)

6. What is your level of education?



The majority of the population (70%) graduated bachelor degree.

Analysis of the surveys in Appendix B: Public perception surveys

***Numbered questions represent questions on the survey, followed by the collected data of each question.**

This section presents the demographic of the population, both offline and online, according to each question

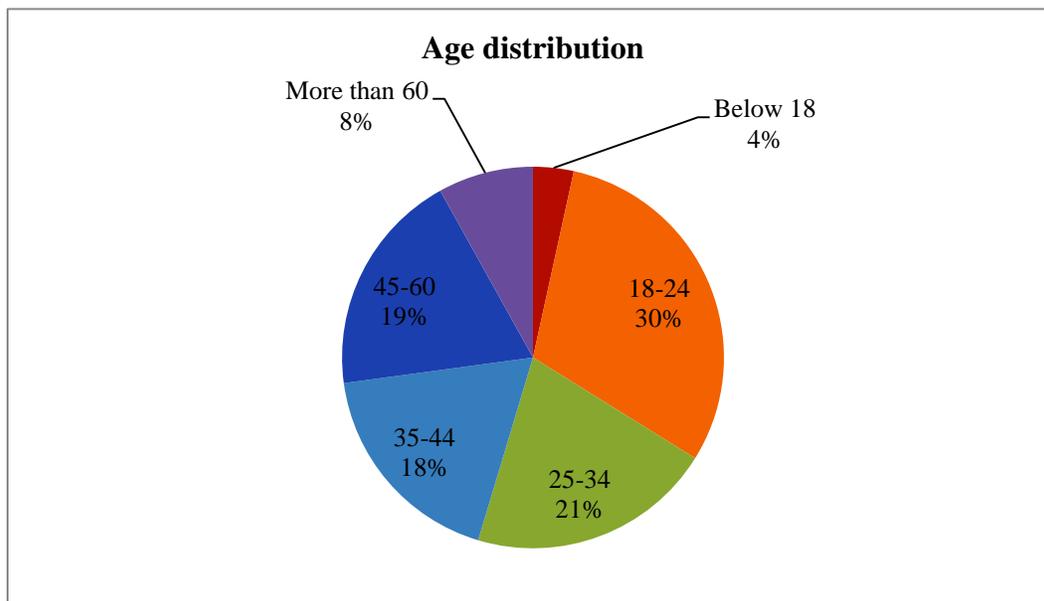
1. What is your gender?

The majority of the population was 64% female and 36% male.

2. What is your ethnicity?

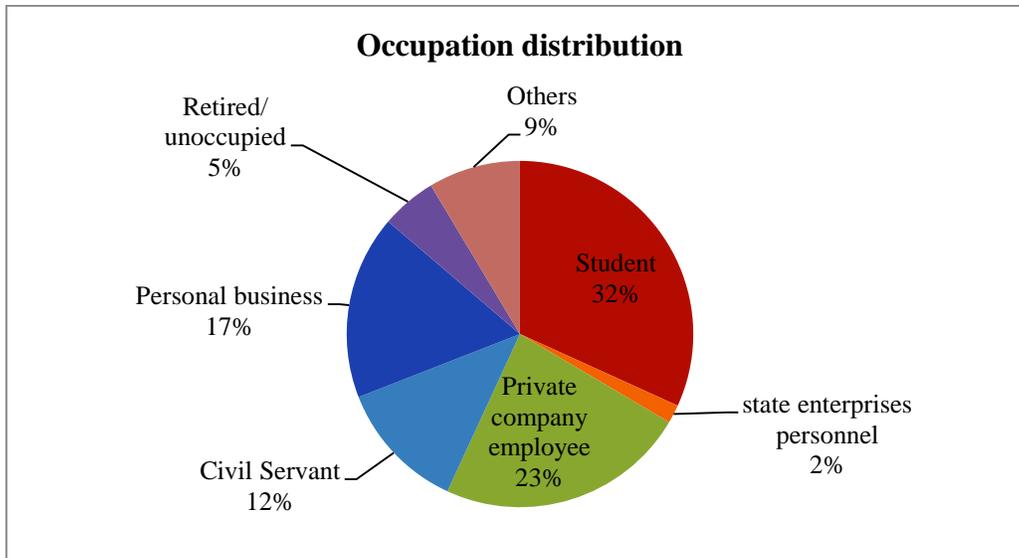
The majority of the population was 94% Thai and 6% Others.

3. How old are you?



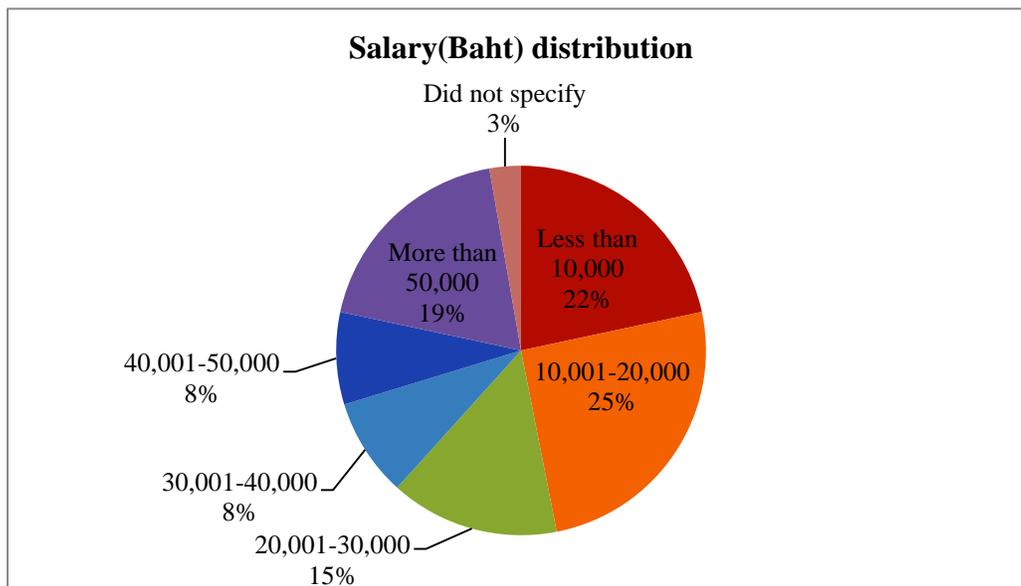
The majority of the population is within the age range of 18-24 years old (30%) and 25-34 years old (21%).

4. What is your occupation?



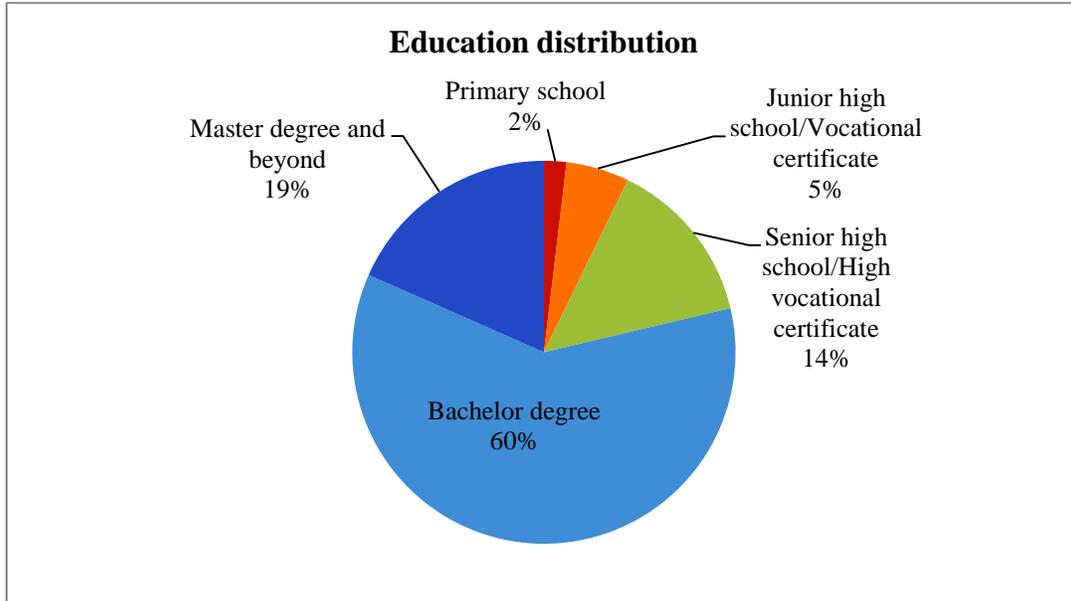
The majority of the population is employed (59%), while 32% is student and 9% is retired or unoccupied

5. How much salary do you receive?



The majority of the population has income between 10,001-20,000 Baht (25%) and less than 10,000 Baht (22%)

6. Education



The majority of the population (60%) graduated bachelor degree.

Appendix E: Interview with Manager of Weaving Center

Interviewee: Ms. Raveewan Khanadnid, the Manager of Haad Siew Weaving Center (a.k.a Suntime Weaving Center) at Sukhothai

Interviewer: all team members

Date of Interview: January 6, 2015

Place of Interview: Haad Siew Weaving Center, Sukhothai

*Questions are in normal font and answers are italicized.

1. Can you give us an overview of the process of *Paa Sin* production?

Aew Fai (อี๋ฝ้าย) or seeding out is used to separate the cotton seed and flowers (ดอกฝ้าย) which were harvested the cotton plant. After this, the cotton seeds can then be used to grow more cotton plants. The next process is called Ying Fai (ยั้งฝ้าย) or willowing, which is a procedure used to make the cotton more fluffy and equally distributed followed by Lom Fai (ล้อมฝ้าย) or cotton rolling to make them into cylindrical rounds. Khen Fai (เข็นฝ้าย) or cotton spinning process, the most difficult step in the process where we have to learn in since when we were young, is the final step conducted to produce workable yarn.

2. What can you tell us about the yarns produced?

The cotton yarns have two colors which is white and brown. The yarns woven by hand can be easily noticed and distinct from the one made from the factory. Hand woven yarn are less popular and takes a longer time to produce. We have a limited amount of equipment for this step.

3. Which part of the traditional yarn production process is the most difficult and problematic?

The overall traditional process requires training to be proficient at it. The hardest part of the whole process is the Khen Fai (Cotton spinning) which is more complicated than the other processes and require training from a young age. It is also the process that takes the longest time to complete which comes with the health risk of back pain problem. Overall, the other procedures such as Aew Fai, Ying Fai, and Lom Fai is easily to do but are laborious.

4. How do you buy your raw material?

We order our cotton from factories which process cotton flowers into ready-made cotton at the ratio of 6:1 kg. The width of 19 inches cost 600 Baht and can be used to

make cloth that cost around 3,000 Baht. Currently, not enough people now grow the cotton plant as they moved to grow sugar cane instead.

5. What can you describe about your dyeing process?

White cotton yarns can be dyed by natural and synthetic colors but we do not do that step by ourselves, we normally buy the industrial dyed yarns from the factories as we have some problem with dyeing the product by ourselves such as the smell it produces. It is hard to distinguish between synthetic and natural colors. The disadvantage of natural dyes is that the colors fade/distort more easily, are more expensive and takes a longer time to process while the advantage is that natural dyes may catch the environmentally and traditionally aware customers. It takes one day to complete the natural dyeing process.

6. What can you tell us about the newer generations?

The newer generations are not really interested and usually only learn the surface of the weaving process for example: my daughter knows how to weave but will not continue in this profession. The newer generations will not learn the harder techniques such as Aew cotton and Khen cotton and only learn the process of weaving such as Jok.

7. Who are your shop customers?

Most of our customers are adults with age of more than 30 years old as well as foreigners and tourists. Foreigners are interested in the textile and normally like to ask questions about the difference between the textile qualities.

8. What made your product different from other places?

Our unique selling points is the patterns, methods of weaving, and structures of our products. The shop sells different types of textiles from each other such as lower quality and higher quality Jok patterns.

9. What can you tell us about the price and cost of making the product?

In the past, the artisans received 600 to 800 Baht per jin (ฝืน) while received 400 Baht per day for cutting sugar cane. Porcupine quills (ขนเม่น) are softer for joking but are hard to find as metal pieces for joking the textiles are easier to buy. Other designs for the product includes using the Paa Sin in bags and blankets. In the past around 30 years, Paa Sin Dteen Jok costs less than 1,000 Baht. Nowadays lower quality textile Jok Yok (จกยอก) are more available to be sold, takes less than 3-4 days to finish and cost less than 1000 Baht but the patterns are not continuous while higher quality Jok using porcupine quills (จกขนเม่น) can take months to finish and cost around 4,000-5,000 Baht. When coming up with the price we consider the labour cost more than the raw material costs.

Appendix F: Interview with Villagers at Haad Soong Village

Interviewee: Six villagers

Interviewer: All team members

Date of Interview: January 7, 2015

Place of Interview: Haad Soong Village, Haad Siew subdistrict, Si Satchanalai district Sukhothai

*Questions are in normal font and answers are italicized.

1. What types of textiles do you weave?
2. When do you usually weave?
3. How long have you been weaving Thai textiles?
4. Do you weave as a main job or side job?
5. Do you buy or make your own cotton for weaving?
6. Why did you choose not to weave the *Paa Sin Dteen Jok*?

Villager A

1. *I normally weave the middle section of the Sin (Tua Sin).*
2. *I weave during my free time.*
3. *I started weaving since was a teenager (15 years old).*
4. *My main job is agricultural farming.*
5. *The yarns I that I usually use are from the market since I am only using synthetic yarns.*
6. *I can weave Jok technique, but I dont like it sine takes a long time complete one piece. Now I only weave according to the customer's order that I receive.*

Villager B

1. *I only weave blankets and I am the only one in the village who weaves this.*
2. *All day when I am free because it is my only job.*
3. *Since I was a teenager, now I am 80 years old.*
4. *I have no main job.*
5. *I only use synthetic cotton made from factories as natural cotton yarns are hard to find.*
6. *Because I am the only one in the village who can weave blanks for the people here.*

Villager C

1. *I weave Paa Sin Dteen Jok; both Tua Sin and Dteen Sin.*
2. *All day because I do not have any job to do.*
3. *Since I was young, I watched and learned it from my mother.*
4. *This is my main job. But my husband is working for the state. I order synthetic cotton yarns from the factory.*
5. *I weave Paa Sin Dteen Jok.*

Villager D

1. *I only weave Paa Yok (Brocade weaving technique) as Dteen Jok takes time.*
2. *After finishing all the daily chores, I would weave.*
3. *From when I was a child, my mother taught me.*
4. *This is my only job and I don't want to make too much money from it.*
5. *I buy industrial cotton yarns from the market since it is cheaper.*
6. *I think that Paa Sin Dteen Jok is hard to weave and it takes a very long time to finish one piece, so it is not worth it.*

Villager E

1. *I weave the Yarm (bags) made by Paa Yok (Brocade weaving technique).*
2. *During my free time when I am not doing my main job.*
3. *I have been weaving since I was young, my mother taught me.*
4. *I do this as a side job, my main job is the villages' nurse.*
5. *The cotton that I brought from the market are made from factories and are cheaper than by growing it myself.*
6. *I do not weave Paa Sin Dteen Jok because I prefer to weave using Paa Yok since it is not as tiring.*

Villager F

1. *I used to weave the Thai sack, 'Yarm' but not anymore, only my daughters weave it.*
2. *Not anymore since I am very old.*
3. *I started weaving when I was very young.*
4. *I used to weave as a hobby.*
5. *My daughter buys them.*
6. *I did not study how to weave it when I was young.*

Appendix G: Interview with Head of the Haad Siew Weaving Center

Interviewee: Mrs. Suntimee Khanadnid, Head of the Haad Siew Weaving Center

Interviewers: Chanintorn Chokchaijareonporn and Soravis Vibhagool

Date of Interview: January 16, 2015

Place of Interview: Lumpini Park, Bangkok

*Questions are in normal font and answers are italicized.

1. Does people know how Thai textiles are made?

People nowadays do not know how Thai textiles are made and how complicated it is to make each one of them. Customers usually walk into the shop and moan about the relatively high price tags as they do not understand how much effort and time is needed to fabricate these textiles. Some customer didn't understand why the price of Paa Sin Dteen Joki is too high.

2. What are the problems of weaving Paa Sin Dteen Jok?

It is hard to weave and takes long time for one piece of Paa Sin Dteen Jok to be fabricated.

3. What has the government done to help stimulate?

The government already supported Paa Sin Dteen Jok by sending local student to her shop to learn how to weave but after finished the course the student did not continue on weaving. The government already had created a walk in tour and booth in festival. They can sell a lot of products via the booth in festival. Last 10 years, there were more weavers who weave Paa Sin Dteen Jok because the government gave the money to them to weave it, therefore there are more product of Paa Sin Dteen Jok but lack of buyers.

Appendix H: Interview at Tourism Festival 2015

Interviewee: Mrs. Suntree Khanadnid, Ms. Raveewan Khanadnid, Mrs. Thong Yoi, and Mrs. Noi

Interviewer: Chutikarn Thichinphong

Date of Interview: January 18, 2015

Place of Interview: Lumpini park, Bangkok

*Questions are in normal font and answers are italicized.

1. What do you do on production process of *Paa Sin Dteen Jok*?

Mrs. Thong Yoi: I have been doing the spinning process for more than fifty years since I was fifteen years old. This process is very difficult so there are only me who can do it. Although some people think that Jok weaving process is hard, actually Jok weaving is easier to do as the weaver can use a piece of completed textile as an example to easily copy the existing patterns onto the new piece.

2. Is this your main job? How much you get?

Mrs. Noi: This is not my main job, my main job is farming which harvest only once a year, so during my free time I weave on order for a shop. I can freely weave at home as I weave according to the orders from the shop. One piece of cloth is about 2200 Baht. Nowadays, there are less people who still weave as the main job because most of them have an actual job and get paid every month. It is not like in the past that people did the farming and after their work, they did the weaving which it only get 300 Baht for one piece of cloth. But if we weave for the shop, we will get money more than we sell to direct customer. At Suntree shop, there is a demonstration of the traditional production process and has lessons for people who interest in weaving, but not much people who can endure with it. Some people can weave some as their parents are still weaving. Suntree shop is selling only local ancient cloths not like Sathorn shop that selling many kinds of cloths. Most of Paa Sin Dteen Jok are from Baan Mai and Pa Pai. At Baan Haad Soong are doing the local textile not many in Dteen Jok.

3. How about the yarn, is it handmade or machine-made?

Mrs. Noi: Nowadays, there are less people who can do the hand cotton spinning. Therefore, the shop orders the 100% cotton yarn from factory, which is quite expensive. In this shop also use rayon yarn, which is softer than 100% cotton. Another yarn is toray yarn which it shinier than rayon yarn but the shop does not usually accept it because it is not look ancient. There are nine popular patterns for Paa Sin Dteen Jok, Haad Siew

which are *Kluer-Noi* (เครื่องน้อย), *Kluer-Klang* (เครื่องกลาง), *Kluer-Yai* (เครื่องใหญ่), *Mon-Sib-Hok* (มนสิบก), *Sib-Song-Nuay-Tad* (สิบสองหน่วยตัด), *Paad-Khor* (แปดขอ), *Sii-Khor* (สี่ขอ), *Naam-Ang* (น้ำอ่าง), and *Song-Thong* (สองทอง).

4. Do you think your shop is lacking in marketing?

Ms. Raveewan: I do not think we lack of marketing, the reason why the team thought that we lack because they only went to the shop in Sukhothai and less customers come and buy, but actually if there is an event to show and sell our products there will be more customers. Most of these event are supported by government such as Thailand Tourism festival and Kaset trade fair.

5. How do they different between a porcupine quill stick and a steel stick?

Mrs. Suntree: Using steel stick to weave silk Paa Sin is easier than using a porcupine quill, while cotton weaving mostly uses porcupine quill.

Appendix I: Interview with a product designer for The Queen Sirikit Department of Sericulture

Interviewee: Ms. Phraeva Rujinarong, a product designer for The Queen Sirikit Department of Sericulture (กรมหม่อนไหม)

Interviewer: Chanintorn Chokchaijaroenporn, and Pakorn Ruengrattanatrai

Date of Interview: January 26, 2015

Place of Interview: Chamchuri square, Bangkok

*Questions are in normal font and answers are italicized.

1. What are the factors affect on a customers' choice between mill-spun cotton and hand-spun cotton?

There are different types of customers. The customers of handcrafted cotton care more about the quality and the cultural wisdom of the piece, but customers of mill-spun cotton care more on designs, beauty and the prices.

For me, I would like to buy the handcrafted cotton one because I just had a trip to observe the traditional weaving community which taught me how delicate the traditional cotton making process is. However, for the people who have never understood those process they normally based their decision on the price of the textile. So, I think the team has to educate them to be aware on the process, the history of those textiles and culture of Paa Sin Dteen Jok. Moreover, the limited price of handcrafted cotton that I can handle is up to 50,000 Baht. My preference does not depend on the physically beauty of the textiles but depend on the history and the story within those textiles. If I have higher salary, I will buy higher price textile for sure.

2. Why is the price of each textile different?

The price depends on the quality, size and types of the textiles. The problem is that the artisans do not know how to set their product prices, they also do not charge on their labor and time used in order to make those textiles. Ideally, the price of traditional handcrafted textiles should be many times higher than the industrial made.

3. Are there any problems with the cotton yarns?

From my perspective, there are two main problems on cotton yarns. The first problem is on the availability of cotton as raw material. Since there are currently few cotton farms in Thailand, the less cotton yarns will be produced for making traditional textiles. The second problem is from the preference of the textile exporters. Most of them prefer to use mill-spun cotton yarns to make their textiles because mill-spun cotton yarns

from these factories are certified by certain standards which will ease their exporting affair at the country of destination. Also, using raw materials that are guaranteed with such standards, producer can charge higher price on their product

4. Do you have any suggestions for us to identify the root cause of the problems?

I think the team can do a questionnaire survey to find out on the awareness on Thai textiles for general public from different places such as at the events or fairs, JJ market, The Old Siam Plaza etc. Moreover, the sample of surveys should be from several ages and the preference on patterns, colors, techniques, functions, and price can be asked on surveys.

Appendix J: Interview with Fai Kram Shop owner

Interviewee: *Fai Kram* shop owner (does not wish to provide his name)

Interviewer: Chanintorn Chokchaijaroenporn

Date of Interview: 31 January, 2015

Place of Interview: The Old Siam Plaza, Bangkok

*Questions are in normal font and answers are italicized.

1. Can the general customers identify if the textile is made from hand-spun cotton yarn or mill-spun cotton yarn?

The general customers usually cannot identify which piece of textiles is made from hand-spun cotton yarn, but they will mostly ask for advices if they specifically wanted the textile which is composed of hand-spun cotton yarn.

2. Are the textiles in your shop naturally dyed?

We have both synthetic and natural dyed textiles. However, the natural dyed textiles are more expensive than synthetic dyed which is because of the making process.

3. How much does it cost for the natural dyed textiles?

It costs around 700-1,000 Baht per meter. Normally, the price of natural dyed will be twice of chemical dyed because the natural dyeing process is quite complicated.

4. Between natural and synthetic dyed textiles, which is more popular for the customers?

Actually it depends on their purchasing power, if they can afford the natural dyed textiles, they will go for it.

5. Does your shop have *Paa Sin* which is made from hand-spun cotton yarn?

My shop does not have hand-spun yarns, I have only mill-spun yarns. Moreover, the hand-spun their yarns are rougher, usually thicker and have some lumps which is noticeable.

6. Is hand-spun textile more expensive than mill-spun textile?

The hand-spun textile is a little more expensive, but it really depends on personal preference. If there is high demand, the price would go up. It is all about the trend. There are some groups of people who prefer this kind of textile.

7. So the price really depends on the popularity?

Yes. For example, 'Paa Yok Nakhon' or brocade textile is very expensive because it is popular.

8. Where do you get the cotton-made textiles? Are they from Sukhothai?

I got it from many places, such as Nongbualamphu and Udonthani but I do not have any from Sukhothai. My products are from the Northeast of Thailand, but there are some pieces that have similar patterns to that of Sukhothai's.

9. Do people make bargains when they buy your products?

Sometimes they do, but some people are okay with the price because they know how delicate the textiles are made. Unfortunately, not many people weave these days because they think they will earn more if they do other things for their livings.

Appendix K: Interview with a Thai textiles expert at Queen Sirikit Museum of Textiles

Interviewee: Mr. Wittawat Ketmai, Museum Event Staff

Interviewer: Chanintorn Chokchaijaroenporn, Nattanan Nakthong, and Soravis Vibhagool

Date of Interview: February 10, 2015

Place of Interview: Queen Sirikit Museum of Textiles, Bangkok

1. Can you tell us about *Paa Sin Dteen Jok*?

Paa Jok is a tradition from the Chiang Saen people, who migrated Southward from Chiang Mai. Jok technique from Haad Siew involves the artisan performing the patterns creation from the back of the textile.

2. What is the SUPPORT?

SUPPORT is The Foundation of the Promotion of Supplementary Occupations and Related Techniques of Her Majesty Queen Sirikit of Thailand.

3. How does SUPPORT help or assist the cotton textiles market?

SUPPORT does not work on cotton market field, we have been helping only the silk market while concentrating on products sold to the middle and wealthy population class. They have shown their support in different ways for example, SUPPORT has created a fashion show by giving famous designer Thai textiles to redesign, SUPPORT also educates the villagers on choosing the colors to be dyed because most of them do not know the suitable colors to match the demands of the market. Moreover, SUPPORT also suggests the villager to increase the size of the textile's loom to decrease the amount of suture which decrease the amount of yarns used to make the product.

4. What is the main problem that cause the lost in popularity of *Paa Sin Dteen Jok* in some place like Jok Haad Siew and Jok Kru Bua of Ratchaburi province?

I think the main problem comes from that the new generation lacks interest in this field. Majority of them have the mindset that because they think that they have graduated bachelor degree, why should they be weaving textiles instead of getting a well-recognized job with financial securities.

5. Do you think nowadays people are still doing the traditional cotton/silk yarn preparation process?

Nowadays, there are less people who do the cotton/silk preparation process. They are trying to skip the process that is time consuming and promotes health issues such as backache. So, they tend buy the read-to-use industrial dyed cotton and silk yarn from factories.

There is a special yarn called 'The Royal Silk' (ไหมหลวง). It is the name of the silk and program which was designed to help the locals by providing jobs and also educate them to preserve traditional production process. Her Majesty Queen Sirikit has proposed a plan on purchasing farms for locals to plant mulberry, food for silkworms. Later, after getting the silk as the product, they are transferred to The Support Arts and Crafts International Centre of Thailand and distribute to the weavers.

6. Do you think using facilitating device would help artisans in the production process is a good idea?

Due to the modernization, technology has become an alternative way to make people life easier, so there are many people who invent the labor saving or facilitating devices to help artisans in the production process such as the cotton spinning device, or ginning device. In my opinion, I believe that using such devices, their products would still be considered as handmade products. Therefore, using these devices can bring the benefits on the convenience and decrease number of health issues for the artisans.

7. Are there any difference on the price between 100% handcrafted and non-handcrafted textiles?

The price of 100% handcrafted product is more expensive by approximately 2-3 times. For me, I think 100% handcrafted products have its own value and in the future the price will be higher than now for sure, especially if a trend is made. Furthermore, I think that Thai people do not care much on how genuinely handcrafted a particular piece of textile is, they seem to care more on supporting the local people and the local economy. With foreigners, however, tend to care more about the authenticity of the handcrafted textiles.

Appendix L: Summative teamwork assessment

During the three months that we had been working toward the assigned Interactive Social and Science Project, there were many experiences, struggles, laughter and tears that the seven of us have shared together. It was surely counted as one of the remarkable memories of our time as a Chulalongkorn University student. Importantly, we have gained valuable knowledge and skills from working in our particular subject. As we are students studying in a science major, we did not expect become experts on traditional textiles. Completing this project allowed us to know more about Thai culture and the importance to preserve it. We also got several chances to practice methods of communication with people through telephone conferences, interviews, and surveys.

There are some challenges that the team had met with during our work throughout the project. Right at the beginning, the team struggled to meet expectations of our advisors and of the course as a whole. It was a depressing and dispiriting moment but our team manages to get through the ordeal. Throughout those few weeks, we had been consoling and motivating each other while setting short goals for ourselves to tackle. We soon picked up the paces and gradually improved as a team.

We realized each other's strengths and weaknesses through our experience working together during the course. Having team work hours on an average of more than eight hours daily sure has brought us closer than ever. We agreed that as the weeks gone by, we felt more comfortable working and communicating together due to the relationship that we have developed during the given time. This unconsciously assisted us during the delegation of assignments, tasks and responsibilities. Being so, the team was able to excel even more swiftly. From that, we came to a conclusion on the fundamental strength of our team which is that we do not easily yield as we are willing to do just about anything within our capabilities, or perhaps beyond, to attain the optimal outcomes.