

## DESIGN OF PROTOTYPE OF KRA ISTHMUS OTOP CENTER

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### Abstract

**Objective:** The design of OTOP exhibition centre was aimed to study the background and local lifestyle of people in Kra Isthmus, Ranong Province and OTOP exhibition centre design for Kra Isthmus to increase the value of community shop's appearance in accordance with Thailand 4.0 policy which aims to promote Thailand's economy to be an innovation-driven economy.

**Methodology:** Both qualitative and quantitative methods are used to conduct this study. The background and local lifestyle of the people at Kra Isthmus were studied by using the conceptual framework of Thidima Umpawan. The survey was conducted with the participation between researcher and people from the community. Three models were created.

1<sup>st</sup> Prototype was Fon Pad Dad Si (eight months of rain and four months of sunshine) is interior design keyword. 2<sup>nd</sup> Prototype was Thammadha (normal) and 3<sup>rd</sup> Prototype was Tuk-mai (wooded shophouses). The design detail of each model consisted of location, organization management, behavior analysis of service provider and service consumer, correlation analysis, image, color schematic, material management, floor plan and other related plans, and perspective.

**Main Findings:** The results from expert's opinions on the all models showed that the appropriateness of the location was at the high level ( $\bar{x}$  = 3.80, SD = 0.60) as well as the organization management ( $\bar{x}$  = 3.70, SD = 0.65). The third model had the highest score among the three models in floor planning and merchandising ( $\bar{x}$  = 3.45, SD = 0.62). Moreover, the third model could well represent lifestyle of Kra Isthmus ( $\bar{x}$  = 3.50, SD = 0.60) and use appropriate material ( $\bar{x}$  = 3.70, SD = 0.52). The color schematic of the second and third models was at the average level ( $\bar{x}$  = 2.80, SD = 0.60). The first model had the highest score in lighting design ( $\bar{x}$  = 3.20, SD = 0.50) at the average level. For the overall design, the third model had the highest score ( $\bar{x}$  = 3.30, SD = 0.62).

**Implications:** As modern agriculture focuses on the management, interior design and technology, modern community shops are established. People in the community become the entrepreneurs who plant, process and sell their own products. Having unique style shop is one way to develop Kra Isthmus area to be Ranong's cultural tourism area.

**Keywords:** Exhibition centre, Retail, OTOP, Kra Isthmus, Thailand

### INTRODUCTION

Designing can enhance the national economic development to move forward progressively and add the value of goods and product. This, therefore, strengthens the community and society to possess their identity especially the creative economic that is preferable for the current society such as the project of One Tambon One Product (OTOP). OTOP brought about creative idea and converted into the product and a well-designed shop's environment to attract the customer. As a result of Thailand 4.0, it is necessary that the government drive Thailand economy with innovation, modern agriculture focused on management administration, application of interior designs and technology at the same time of creating new modern shops run by the local entrepreneurs in planting, agricultural product processing and distribution. The concept of driving economy based on Knowledge, Education, Creativity, Intellectual Property in connection with Culture, Wisdom, Technology and Innovation has been importantly emphasized by the government to produce and add high values of products and services to reach the economic and social values in order to meet the consumers' need of the world market. Creative economy is the concept of increasing and developing the growth of the national economy by using the asset developed from people's creative imagination. Creative economy is in connection with the systems of economy, culture and society so as to be reciprocally related to the technology, intellectual property and tourism.

It was stated clearly by Sakchai Kiatnakon, 1999 that the local wisdom meant knowledge and capability which had been inherited from local predecessors. His article was in accordance with the definition of local wisdom defined by Jaruwat Thammawatra (2000:1). She defined local wisdom as an inherited people's way of life reflecting the intelligence of people and their society. This had related to the knowledge of design leading to an innovative product that could totally respond to the creative economy. The Andaman Gateway project located at Kra Isthmus, Ban Thap Li, Tambol Mamu in Ranong is the narrowest part of the Malay Peninsula in the Southern Thailand and Myanmar. Ranong had got a sum of budget supported by the Andaman Southern Province Cluster to construct a gateway to Andaman or Andaman Gateway for tourists to do sight-seeing of both countries along Kraburi River which is the border of Thailand and Myanmar (On-line Manager, 2013). At Kra Isthmus there has been a very famous OTOP known as "Thap Li Salapao" which has been the local wisdom of people living in Ban Thap Li for more than 50 years. This product can be popularly seen and bought along the main street in the city especially in their community. There are 36 shops selling this Thap Li Salapao every one kilometer on both sides of the streets. Thap Li Salapao from each shop is similar in its taste and quality. Apart from Thap

Li Salapao there are more than 65 OTOP products that should be strongly supported and developed. Therefore, this research was aimed to study the background, local lifestyle, local architecture and OTOP products in order to create a specific design to strengthen the better image of Andaman Gateway and add high value of its OTOP. The design of OTOP center for Kra Isthmus was based on the community's lifestyle and culture in order to bring about the sustainable development of the community's tourism area because the local people were the development stakeholders who would receive all benefits.

## METHODOLOGY

The researcher used both qualitative and quantitative method to conduct this study. The background and local lifestyle of the people at Kra Isthmus were studied by using the conceptual framework of [ThidimaUmpawan \(2012\)](#). It was stated that the local people's lifestyle was material culture that could be touched and seen and also bound to mental culture. It was composed of architecture, occupation and food etc. This idea was relevant to ThitiBoonyos's conceptual framework (2007) and Office of the National Culture Commission (1998). Residence was the first architecture that fulfilled the needs of human. It was built to protect human from natural disaster so that they could survive. Later on, it was built according to the lifestyle of people in each country. A created architecture design was not only react in respond to the local lifestyle of the community but also the environment and resources used for its construction which represented local specification and identity ([KrisadaSrinarang, 2011](#)). It was stated that the design of OTOP center which originated from the local wisdom could increase the quality and serve the market needs as well as add high value to the product (EkachatJoneurairat, 2011). Besides, according to the definition of [Royal Academy \(1999\)](#) exhibition center was a central source to present the products. After having the conceptual framework of the design, the researcher had constructed the questionnaires to be used to study and analyze the local lifestyle of people living in Kra Isthmus, their products and related architectures such as 20 Ban Thap Li's architectures and the OTOP product placement from 36 shops. These data were analyzed based on the vocational principles and theories and summarized as a guideline for the design concept and usable area. The research had developed the questionnaire based on these data and distributed the questionnaire to 10 interior designers.

## Population and Sample Group

The questionnaires were distributed and collected from 5 sample groups. In group 1, the population was selected by purposive sampling to collect the data to be used for the Andaman Gateway building in Ranong. The data of group 2 were collected from the pictures of architecture designs of 1,655 residences in the TambonMamu area. The sample group selected by using the purposive sampling was 20 residences who live and do their trade in Thap Li village. In group 3, the pictures of products and their selling styles were collected from 36 shops that sell Thap Li Salapao as well as participation questionnaires that were distributed and collected from 50 people who live in Thap Li village. The data on OTOP products of Kra Isthmus and Ranong were collected in group 4. The sample in this group was categorized according to the type of products as 1) food, 2) drinks, 3) cloths and textiles, 4) household furniture and souvenirs and 5) herb which is not food. The sample of group 4 selected by using the purposive sampling was 10 designers who are specialized in an interior design.

## Research Tools

In this study, the survey was used as a research tool to collect the data according to the objective that stated to study the background and lifestyle of people at Kra Isthmus, TambolMamu, AmphurKraburi in Ranong. In order to study the local resources, the survey was carried out by walking, taking photograph, drawing layout and interviewing/storytelling. The survey was divided into 3 parts. The first part was the community layout. The second part was local architecture and environment of 20 residences of Ban Thap Li. The survey in this part was focused on the characteristics and styles of the buildings, building layouts and its shape including roof shape as well as the material used. The third part was to survey the utility of building, lifestyle, production and selling style of Thap Li Salapao. As it was considered as resource survey, the survey was also conducted by walking, taking photograph and drawing layout. This survey was divided into 2 parts: 1) the community lifestyle and 2) the production and selling of Thap Li Salapao from 36 shops. To design the OTOP center as mentioned in the second objective, the survey on OTOP products in Ranong was done by walking and taking photograph to gather all the data needed for the design OTOP center for Kra Isthmus's products. The survey of Andaman Gateway in Ranong was also done by walking and taking photograph. The survey was divided into 3 parts: 1) the layout of Andaman Gateway Building 2) architecture and 3) interior design/area. The 50 local residents were invited by the researcher to have a focus group to discuss and try to find out the local identity. Besides, the 10 interior designers were interviewed with the questionnaires to get the data for designing the OTOP center for Kra Isthmus. The questionnaires consisted of 3 parts: 1) general information 2) opinion about the design of OTOP center of Kra Isthmus, location, organization management, layout, product placement and service, material used, color and lighting design 3) suggestions.

## ANALYSIS RESULTS OF THE DESIGN

**Step 1.** The analysis of the internal potential, was focused on the circumstance evaluation. There were different scenarios as follows.

### Scenario 1 (Strength and Opportunity) to (Aggressive-Strategy)

The local symbol of Kra Isthmus was the strength of its aggressive strategy that must be coupled with the opportunity of being fully supported by a group of strategy administrators of southern provinces around Andaman. The existence buildings could be used to strengthen proactively by using the public relations to connect the trade between Thailand and Myanmar.

### Scenario 2 (Weakness and Threats) to (Defensive-Strategy)

The defensive strategy had to be applied and proposed to develop the organization services sustainably. There had no development of the area used by the community and no community participation. As a result, there was no interest of local people to develop their products' varieties to cope with the threats of being located on the route that was not the main passageway. It was suggested that the community should create the cooperation network with the public transportation of Ranong to drop the passengers at the rest stop to buy souvenirs, food and drinks.

### Scenario 3 (Weakness-Opportunity) to (Turnaround-Oriented Strategy)

It was suggested to be used for finding out pros and cons of the organization and management in order to be a guideline for setting up a relevant project. The community participation was the main weakness that needed to be studied. A plan to bring local people to participate and use the area was necessary.

### Scenario 4 (Strength-Threats)

To create the community identity can be done based on the study of the local lifestyle at Kra Isthmus so that physical and mental values could be obviously touching the tourists' feeling and made it as a "must" to look for OTOP of Kra Isthmus and Ranong.

#### Step 2. Analysis of architecture and empty space inside Andaman Gateway Building

It is a one-floor building which consists of 2 rooms. It is 6 meters wide, 8 meters deep and 4 meters high with the area of 48 square meters. The front entrance is a one-step staircase with 20 centimeters high and 30 centimeters wide made of yellow pebble wash. There is no pathway for the handicapped and the old. The internal floor is made of natural stones with the size of 60 cm.x60 cm. The tiles are installed tightly with the skirting boards that are made of the same kind of stones. The wall is bricked and painted white with 3 sides.

There is an entrance at the front. The ceiling is made of gypsum board and painted white. The doors are steel shutter doors with 2-panel per room. The windows are UPVC windows with 5 louvers per room.

#### Step 3. Analysis of residence and shop architecture design



Figure 1The front and empty space inside OTOP building



The analysis results of residence and shop architecture design had contributed to the design concept.



**Figure 2**The residence and shop architecture design

Based on the data gathered from the questionnaires and the survey, it was concluded that Kra Isthmus is the area that is the mixture of the ancient and modern culture. From the analysis, there were many keywords from the designs representing the lifestyle of Kra Isthmus community. The data were gathered from 50 people, who responded the researcher's participation questionnaires.

Step 1. Twenty keywords indicating the lifestyle of Kra Isthmus community were modesty, grass scent, narrow, innocent, inflamed bright, Thap Li, shophouse, wooden shophouse, Chinese red-wooden shophouse, lemon grass, normal, original, isthmus, clam, soil, eight months of rain and four months of sunshine. Step 2. Five keywords indicating the lifestyle of Kra Isthmus community were selected. These were Thap Li, normal, wooden shop houses, Chinese red-wooden shophouse and eight months of rain and four months. Step 3. The researcher decided to select only three keywords which were eight months of rain and four months, normal and wooden shop house from the participation of the researcher and the Kra Isthmus community.

**Step 4.** After having done the analysis of the OTOP products that were exhibited and sold at the OTOP center of Kra Isthmus according to the details of the project and the guideline of the design to present the local image for cultural tourism, there were 65 items of products which were classified into the followings: food, drinks, cloths and textiles, household furniture and herb which is not food. The analysis result of the consumers and service provider showed that the main consumers of the project were tourists and local people.

The number of 53 consumers using this area most at 09:30. (coach No. 63 Bangkok – Kuraburi – Phuket) Service provider of this project was local people in the community. The shops were managed and operated by the community cooperatives. Regarding the opening hours of the center it was recommended that the most appropriate opening hours was 07:30 – 23:00. Based on the consumers' behavior from five comparative projects such as OVOP, YUFUIN, OTOP center of PrachuapKhiri Khan, Plern Wan of PrachuapKhiri Khan and OTOP center at Sankhamphaeng of Chiang Mai, the analysis and behavioral model of consumers visiting Kra Isthmus OTOP center is shown in fig 3.

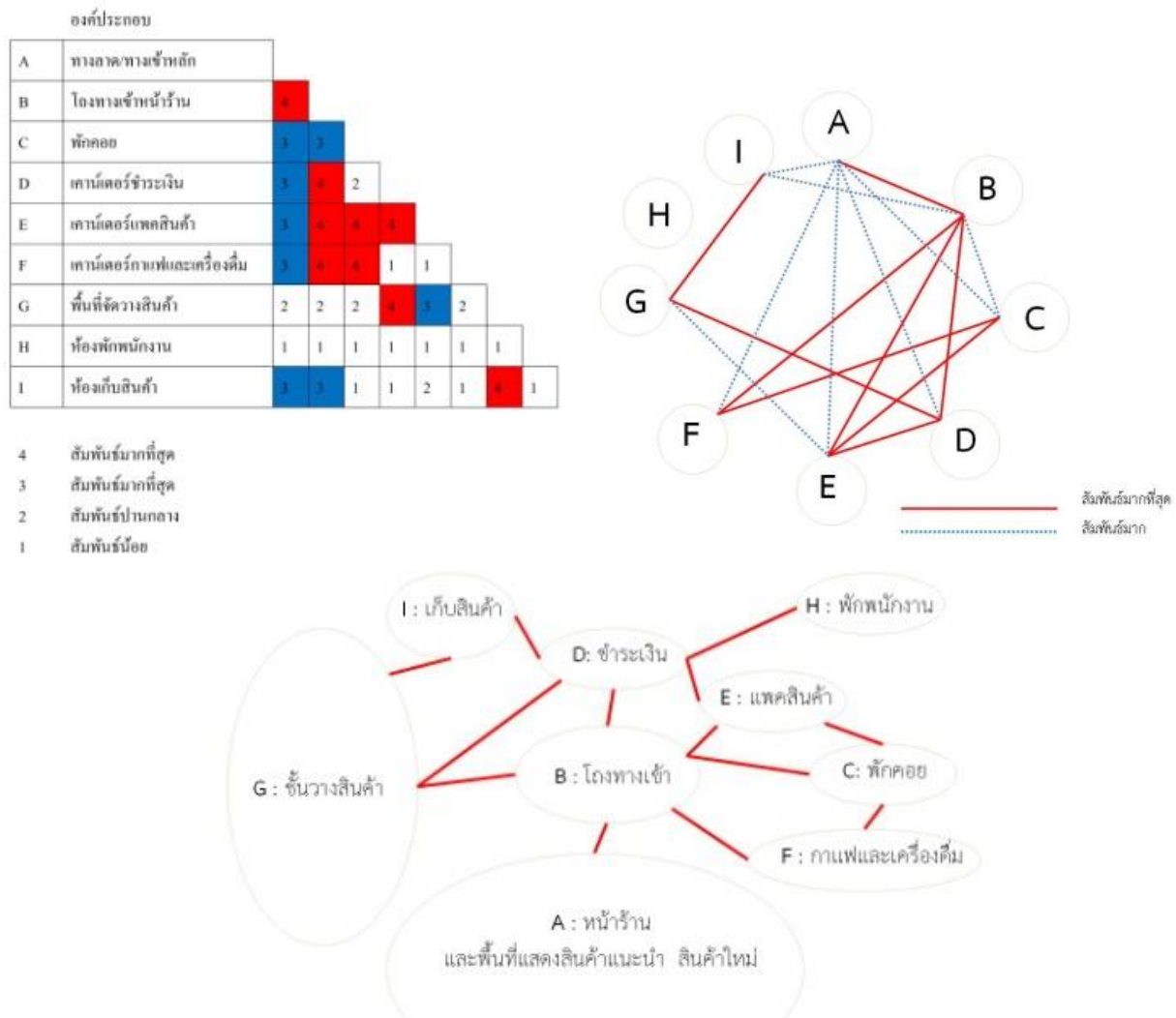
**Step5-6.** The analytical results of step 1-4 were framed to create the three appropriate prototypes of OTOP center of Kra Isthmus in order to promote cultural tourism.

### OTOP center prototype design development

**Prototype No.1:** from keyword“Fon Pad Dad Si (eight months of rain and four months of sunshine)”

Ranong is known as the area with eight months of rain and four months of sunshine because it has hot and humid climate with plentiful rainfall. As a result, the prototype of OTOP center was designed with atmosphere containing raindrop, sunshine, foggy outlook with local natural resource. The color scheme used in this prototype was light grey (C13 M10 Y10 K10) as the main color of the OTOP center covering the floor, wall and cashier counter. There were two secondary colors which were yellow (C1 M18 Y28 K0) and black (C7 M69 Y100 K1). They were used to present the atmosphere of OTOP center covering the ceiling, wall and furniture. The three main colors were green (C45 M9 Y84 K0), dark grey (C52 M43

Y73 K8) and black (C74 M67 Y66 K85). Since Ranong is a rainy province, the material used for flooring should be rough, therefore, screw pine which is a local resource, was used. It was covered with resin to increase the strength and mixed with other materials such as cement tile and pebble wash to reduce transportation. To make raindrop decoration, ball lights were used and decorated as rain drops. To conduct a survey in order to develop the design prototype, it is essential to create the design which can serve every type of customers and users. Therefore, the slope entrance is used for everybody to access easily. The front area of the OTOP center was the rest area where customers can sit and have coffee, mineral water or fruit juice in season. The internal area is divided into 3 parts: the entrance hall and cashier counter, area of product arrangement according to their types and employee break room. Each area was sectioned with the wall made of screw pine mixed with resin.



**Figure 3 Analysis of relation coefficient together with analysis of the area needs at OTOP center of Kra Isthmus**  
**Prototype No. 2:** from keyword “Thammadha (normal)”

According to the in-depth interview of participation research, the keyword “Thammadha (normal)” was chosen by the people in the Thap Li community. They explained that Kra Isthmus, Thap Li or Ranong was defined by the local people to be a normal area without any specialty or different from the neighboring provinces. It is the area with trees, gardens and nature as before. But its normality as seen by the local people, the researcher as an interior designer, could find out that trees, gardens and nature of Kra Isthmus, Thap li or Ranong has got its specialty because it is surrounded with trees to make people feel cool and peaceful. As a result, the researcher decided to choose the scenery of the trees in Ranong as a concept of prototype No. 2 based on the keyword, “normal”. The color scheme used was mainly light grey (C13 M10 Y10 K0) covering the floor, wall, ceiling and cashier counter of the OTOP centre. The secondary colors were grey (C52 M43 Y53 K8) and brown (C7 M69 Y100 K1). These colors presented the internal atmosphere of the OTOP center including decorated ceiling, wall and furniture. The three main colors were green (C45 M9 Y84 K0), dark grey (C52 M43 Y73 K8) and yellow (C27 M35 Y87 K2). For the product placement, the local materials such as bamboo was mixed with cement tile and pebble wash were used to reduce the transportation.





Figure 4The prototype design No. 1 for Kra Isthmus OTOP center



Figure 5The prototype design No. 2 for Kra Isthmus OTOP center

### Prototype No.3: from keyword “Tuk-Mai (Wooden shophouse)”

According to the participation research, the keyword “Tuk-Mai(wooden shophouse)” was chosen from the local community of Thap Li. The researcher got the definition of this word by the in-depth interview. It was found out that the wooden shop house belonged to the Chinese people who came to live and do their trade in Thap Li. There were many styles of wooden blocks. For example, the first wooden bungalow was the red house, a four-room shop house. The structure color was light grey (C3 M4 Y3 K0) that was the primary color of OTOP center covering the area of floor, wall, ceiling and cashier counter. The secondary color were grayish brown (C58 M55 Y823 K49) and brown (C7 M69 Y100 K1) representing the internal atmosphere of the OTOP center including decorated ceiling. The three main colors were dark green (C67 M41 Y100 K30), light green (C46 M0 Y88 K0) and yellow (C3 M23 Y100 K0) used to create cheerful and bright atmosphere inside the OTOP center. For the product placement, the image and structural color were developed to indicate the keyword. Rough material that could not cause slippery was used. Local material such as old wood, red-stained wood, stained wood were used together with other local materials such as tile, cement and pebble wash to reduce the transportation.

The project of designing the OTOP center of Kra Isthmus was aimed to study the background and lifestyle of the local community of Kra Isthmus, TambolMamu, AmphurKraburi in Ranong and to design the Kra Isthmus OTOP center. The summary of the first objective, to study the background and lifestyle of the local community of Kra Isthmus TambolMamu, AmphurKraburi in Ranong was that the architecture of old Thap Li community was a market which was divided into 2 parts: upper market and lower market. There were 1-storey and 2-storey wooden buildings with simple style. The popular simple materials used for the building was wood. According to the study and analysis of background and lifestyle of the local community of Kra Isthmus, the keyword was normal. The second object of the study was to design the OTOP center of Kra Isthmus that was 170 square meters located in the Andaman Gateway project.



Figure 6The prototype design No. 3 for Kra Isthmus OTOP center

## CONCLUSION, DISCUSSION AND SUGGESTION

### Data collection

The survey of local architecture and environment of Thap Li included 2 parts. The overall local architecture from 20 residences could be summarized as follows. There were 45% of 2-storey wooden shop house, 50% of wooden house and



5% of bungalow. The whole feature of local environment of Thap Li was old village which the market area was divided into 2 parts, upper market and lower market. There was the street built through the center and the pier was located at the lower market. The details of 20 local architectural buildings were focused on building description and design. There were 2-storey wooden building of 45%, wooden house of 5% and bungalow of 45%. For the structure and shape of the building, rectangle structure building of 95% and square structure building of 5%. The shape of the roof was 100% with gable shape. The use of materials, wood made of 90% and wood mixed with concrete made of 10%, Roman tile roof of 95% and zinc roof of 5%. 90% of the ground floor made of concrete, 5% made of soil and 5% made of wood. For the top-floor, 100% was made of wood. For the area utility, the use of shop and resident of 80%, only resident of 10%, only shop of 5% and left empty of 5%.

The survey of lifestyle of the local community was divided into 2 parts:

**Lifestyle:** The local people of Thap Li community did trading and agriculture. 95% of the local people used the ground floor of their buildings as shop or frontshop vendors for selling necessary products and Thap Li Salapao

**Production and selling:** There were 36 shops selling Thap Li Salapao. 97.23% of Thap Li Salapao was produced and sold at their shop. Only 2.77% of this product was produced by other producers. 94.45% of shops sold only Thap Li Salapao and shumai. 5.55% of shops sold Thap Li Salapao, shumai and coffee. 94.45% of these products were displayed in the streamer and 5.55% were displayed in the glass cabinet. For the table used in the shop, 2.77% of stainless steel, 2.77% of wood table and 94.45% of wood and vinyl.

In survey of 65 OTOP products, there were 52% of food products, 6% of drinks, 18% of cloths and textile, 15% of household furniture and 9% of herb which is not food.



Figure 7: Layout of Thap Li community based on the survey

The survey of Andaman Gateway building could be summarized as follows. Part 1. The whole infrastructure of Andaman Gateway building consisted of 6 buildings: a boat-shaped building, a sightseeing tower, an OTOP centre, a boat storage building, a multi-purpose building, a parking building. Part 2. Its architecture was modern but blended together with the existing buildings. Part 3. Regarding the interior design and internal space, the OTOP centre was 2 units of 1-storey shophouse with 6 meter wide, 8 meters deep and 4 meters high. The flooring was covered with natural stones and the wall was plastered brick wall painted in white. The ceiling was made of gypsum and painted in white. The door was rolling steel door.



The participation questionnaires were distributed to 50 people who had a focus group to choose the identity of the community. Both the local people of Thap Li community and the researcher selected the local identities that were eight months of rain and four months, normal and wooden shophouse.

Step 3 Decision to choose the three keywords, eight months of rain and four months, normal and wooden shophouse, to proceed with the interior design as follows.

1. Analysis of keywords to create the image, color scheme and material selection.
2. Analysis of utility area, behavior, correlation value and the need of space
3. Taking the 2 parts above to develop the design with the details of furniture plan, side view and scenic view.

The participation questionnaires were distributed to 10 interior designers to respond to the second objective of this study, to design the OTOP centre.

### Part 1. General information

The participants were 50% male and 50% female. The ages were ranged between 31-40 at the percentage of 50%, 50% of more than 40 year old, 60% of single status and 40% of the married. There were 80% of Master degree and 20% of Doctoral degree. The designer having 5-10 years of experiences were 20%, 10-20 years of experiences were 40% and the other 40% were those who had more than 20 years of experience.

### Part 2. The opinion towards the design of Kra Isthmus OTOP centre

The results of designers' opinions towards the prototypes showed that the location of the project was appropriate at the high level ( $\bar{x}$  = 3.80, SD=0.60). The organization management was at the high level ( $\bar{x}$  = 3.70, SD=0.65). Among the 3 prototypes, the product placement of the prototype No. 3 received the maximum scores ( $\bar{x}$  = 3.45, SD=0.62) and was at the high level. The design that could present the lifestyle of Kra Isthmus community was prototype No. 3 ( $\bar{x}$  = 3.50, SD=0.60). This prototype could also present the appropriate use of materials ( $\bar{x}$  = 3.70, SD=0.52). The prototype No. 2 and 3 were commented by the designers that the appropriate use of color was at medium level ( $\bar{x}$  = 2.80, SD=0.60). Prototype No. 1 got the highest scores in using the light ( $\bar{x}$  = 3.20, SD=0.50) and was at the medium level. In conclusion, prototype No. 3 got the highest scores for the overall design ( $\bar{x}$  = 3.30, SD=0.62).

## DISCUSSION

In this research, the researcher studied the literature review and relevant researches for designing the OTOP center for Kra Isthmus. The research tools, a survey, analysis of the design and the evaluation of the questionnaires were applied by the researcher and the results could be discussed as follows:

**Project location:** From the environment evaluation of project location, it was its strength and opportunity to proceed to aggressive strategy because the location is the symbol of the area in relevant to the designers' opinion at the highest level of 3.8. The project should create strategy and the opportunity to get the support from strategic administrators in the Southern provinces at Andaman coast by making use of the existing building in order to do proactively the public relations throughout the community leading to the aggressive strategy. The defensive strategy must be created to serve the organization administration and the lack of community's participation. The turnaround-oriented strategy must be built up in order to reach the local people and bring them to participate in the project since the process of idea development, design, area utility and management. This would increase the strength between the project and the local people and finally leads to the sustainable development.

**Organization administration:** The organization administration is considered as a defensive strategy. There must be systematic management in order to make the project successful. The cooperative shop integrated with modern retail stores should be run in the form of cooperate body which every member is the shareholder and owner.

**Layout plan and product placement:** From the result of designing the three prototypes, all the prototypes had placed the product independently and asymmetrically which was suitable for the small-sized shop. From the questionnaires responded by the designers, prototype No. 3 had got the highest score at the level of 3.4 because of blending between the concept of independent product placement and local architecture layout plan. The area is divided into 3 zones: coffee zone, shop zone and rest zone. The coffee zone refers to the coffee shop area in front which is used for sitting and drinking coffee. The shop zone is located at the central area of both sides which are arranged unevenly according the type of the products. Prototype No. 1 got the evaluated at the score of 3.2. The area is divided into 3 zones with the layout plan that the front area is for the cashier counter and packing the products. This causes the difficulty in getting the access to the product because it needs to walk pass the hall and the cashier counter. The coffee and dinks zone is located in front so it is easily to access. Prototype No. 2 got evaluated at the score of 2.6. From the layout, it is difficult for the customer to access the products, coffee and drinks since they are located far out inside. The cashier counter is located in the area that cannot be seen easily. Therefore, it is recommended to bring the layout plan of prototype No.1 and 2 to be the example of making the layout plan and to take all the weakness found in the prototype No.3 as the guideline of making the improvement of the layout plan.

The three prototype designs reflecting the local identity and the use of materials in these designs are resulted from the study and analysis of the area survey to get the data needed for the participating design procedure. According to the interior

designers, it is found that prototype No. 3 is the best design that presenting the image of Kra Isthmus the the score of 3.5. It uses the wooden shophouse as the keyword for the design and local architecture of Thap Li as the inspiration. The color scheme and local material used can also present very well the local community. In order to reduce the transportation, the red-stained wood mixed with cement and tile are used as well as using fern to decorate and make the area around the wooden shophouse filled with fresh green.

### SUGGESTIONS

1. The researcher, designer whose project created by the government for the community should invite the local people of the community to take part in the designing in order to get the specific design that can show the identity of the community as well as create the feeling of project's ownership.
2. The sustainable development of the organization administration and the management of the shop should be developed further.
3. The identity of each local area should be studied. The design of the new architecture and its surrounding should be suitable and obviously reflect the local identity.

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