

**Research Article**

**Identity of local wisdom to product development to enhance cultural products:  
A case study of Wat Kai Tia community, Krachaeng sub-district, Samkhok  
district, Pathum Thani province**

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**Abstract**

Identity of local wisdom to product development to enhance cultural products: a case study of Wat Kai Tia community, Krachaeng sub-district, Samkhok district, Pathum Thani province. The objectives are 1) To study identity and local wisdom. 2) To develop rice straw paper products of the community from the identity of local wisdom. 3) To satisfy the consumers of rice straw paper products from the identity of local wisdom.

The results of the research revealed that identity and local wisdom of the community can bring relevant information. It is a guideline for product development to be able to be creative in order that the basis for designing products from rice straw paper that is unique in the community and is a resource within the community to create and be transformed into products that reflect the identity of a diverse community with cultural capital, such as lotus flowers, Mon(Rmen) hamsa, centipede flag and hamsa pole, designed and developed from the identity of local community wisdom. It is a product of six prototype products, namely lotus flower products made from rice straw paper, Mon hamsa products from rice straw paper, centipede flag products from rice straw paper, hamsa pole products from rice straw paper, centipede flags from rice straw paper, Phra Yodthong products from rice straw pulp and phan phum (pedestal tray) products made from rice straw paper.

**Keywords:** Product development, Identity, Local wisdom, Rice straw paper

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## Introduction

Identity, arts, and culture are things that can indicate knowledge and wisdom of people in that community. While the identity, those arts and cultures are inherently identifiable and intangible values, such as imitation of the identity of Wat Phra Sri Rattana Satsadaram (Wat Phra Kaew) to other countries, may not be able to bring Thainess. The uniqueness of Thailand is inseparably tied to the shape of the Wat Phra Kaew architecture (Wongruchirawanich, 2014). Each locality has different resources, some resources can be used. It has been used for the community for a long time until it has become a local wisdom, and local people have used their knowledge to develop, adapt, build on, create products that are now local products that come from wisdom get the attention of consumers. As a result, many community entrepreneurs compete in the market more by focusing on the direction of developing products of each locality to be of quality and able to meet the needs of consumers in a better direction. There may be some entrepreneurs who still do not see the importance of the product that affects the quality of the product and are unable to attract the attention of consumers as they should. Therefore, product operators must turn to focus on product development to be able to protect products from damage and add value to consumers (Department of Science Service, 2012). Product development is considered to be important. Having good and quality products can help promote the image of the product as well as local community products, which is one problem that can be found in almost every community. It found that there are still problems in the form of products that are not desired by consumers. Product design is therefore an important part of the quality development of community products (Sasongkroh, 2008).

Product model development of community products for sustainable development (Pinkum, 2017) said that creating community products should be designed to meet the market needs or are popular at that time. By using locally sourced ingredients with value, beauty, uniqueness that can create sentimental value and sentimental value for consumers, the product will be a motivator for buyers as well. Consumers choose a product with a unique difference, consumers will have different ideas, perceptions, and access to products. Most consumers are looking for unique products and the elements of the product all influence the consumer's choice of products and are the top choice of consumers. Product styles can easily attract consumers to make purchasing decisions (Wadeesirisak, 2012).

From the above, the researcher has realized the importance of enhancing the potential of the community by developing products from resources, capabilities, knowledge, and the important part is local wisdom by the community of Wat Kai Tia, Krachaeng Sub-district, Sam Khok District, Pathum Thani Province, which is a strong community. There are joint activities between houses, temples, and schools to create jobs in the community, such as a gathering of Saengtawan housewives. Rice straw paper is produced as a unique product. Wat Kai Tia temple elderly group and university life mergers result in love and unity in the community, and bring community resources to create unique products that generate income for the community. Therefore, the researcher has the idea to increase the potential of community products with the participation of local wisdom of Wat Kai Tia community, Krachaeng sub-district, Sam Khok district, Pathum Thani province to allow the community to bring local wisdom to build on the creation of unique products, able to create jobs, build a career, generate income in the community as well as creating awareness of their own community by bringing the identity of local wisdom to product development to enhance cultural products of Wat Kai Tia community, Krachaeng sub-district, Sam Khok district, Pathum Thani province.

## Objective

1. To study identity and local wisdom.
2. To develop rice straw paper products of the community from the identity of local wisdom.

## Method

The implementation of straw paper product development, the identity of local wisdom to product development to enhance cultural products: A case study of Wat Kai Tia community, Krachaeng sub-district, Samkhok district, Pathum Thani province. It is research development and transfer using participatory experimental research methods. (Participatory Action Research: PAR). The researcher conducted the research in three steps as follows:-

*Step 1: Study the identity and local wisdom.*

Study process, identity, local wisdom of Wat Kai Tia community, Krachaeng sub-district, Samkhok district, Pathum Thani province, study the relevant documents and participatory community interviews from five community leaders, by educating basic information, history of the community, places, resources, raw materials in the community, knowledge, wisdom, arts and culture, festivals and traditions that are unique to the community.

The interview tools, qualitative data analysis, use descriptive content analysis to interpret the meaning of the interview.

*Step 2: Develop the community's rice straw paper products from the identity of the community's local wisdom with participatory participation.*

The researcher brought the problem that was studied and developed with community representatives. Studying the development of rice straw paper products of the community by bringing the identity and local wisdom, conducted product development from rice straw paper as follows:-

1. Analyze and synthesize relevant data as a basis for design.
2. Make a 2D sketch (Sketch) of community products from the identity of local wisdom.
3. Make a prototype of community products from the identity of local wisdom.

4. Twenty experts and potential community representatives were involved and assessed as follows; 3 community leaders, 2 government representatives in the community, and 15 community members assessed the rice straw paper product model, which was designed and developed from the identity of local wisdom. The community evaluated all 6 prototype products. The researcher used the evaluation criteria for community product standards by using statistical values and percentages to analyze the data. Find the mean and standard deviation, which analyzes each specific area. Then collect all aspects by presenting them in tabular form with narration. The analysis criteria were used to assess from the mean range as follows:-

Average 3.26 – 4.00 means the product has the most suitable form.

Average 2.51 – 3.25 means the product is a very suitable model.

Average 1.76 – 2.50 means the product is of the proper form.

Average 1.00-1.75 means the product has a form that should be improved.

The two products that received the highest rating were brought to study the consumer satisfaction of rice straw paper products from the identity of local wisdom and continue to transfer knowledge of rice straw paper product development from the identity of local wisdom.

**Statistics used in the implementation of special plans**

Statistics for this research are: - Percentage - Mean

**Result/Finding**

From the study, the identity of local wisdom to product development to enhance cultural products, a case study of Wat Kai Tia community, Krachaeng sub-district, Samkhok district, Pathum Thani province by identity study and local wisdom; the results of the development of rice straw paper products of the community from the identity of local wisdom and the results of the study on consumer satisfaction of rice straw paper products from the local identity of Phum Panya are as follows:-

1. Identity studying and local wisdom, from identity studies and local wisdom, study relevant documents and information in Pathum Thani Province and Wat Kai Tia community, Krachaeng sub-district, Sam Khok district, Pathum Thani province found that Pathum Thani Province is an old city. It has been established since the beginning of Phra Nakhon Si Ayutthaya. Formerly known as Baan Sam Khok, it later expanded into a large community because there were more Ramans (Rmen) who migrated to flee in the reign of King Rama II, and who had traveled through the royal river route come to visit and take care of the people's suffering. Ramans offered lotus flowers to show their devotion, and gave the name of the new city to be auspicious that "Mueang Prathum Thani" is a third-tier city. Later, in the reign of King Rama VI, the name was changed from "Prathum Thani" to "Pathum Thani", as well as changing the status from a city to a province. Sam Khok is a city that has been rich in lotus since ancient times. Therefore, there is a tradition from the Ayutthaya time that the Viceroy has come on a boat to collect the lotus flowers and bring them to the King for

the royal sermon every year. His Majesty King Pinklao Chao Yu Hua also came to collect lotus flowers in this city. For this reason, in Pathum Thani province, the provincial flower is the “Bua Luang”.

Pathum Thani province, there is a logo in the shape of a circle with the symbol of the pink royal lotus in the middle and two golden ears of rice, lotus flowers, and rice plants, meaning perfection, cereal plants. Pathum Thani province abbreviated as "PT" and from participant community interviews and coordinated with relevant agencies to request permission to visit the area for data collection. Three community leaders were interviewed from the identity study. Local wisdom of the community from document data and interviews found that there is still a community style that is still charming and unique with the people who live in the area and the way of life of the people in the community is Mon ethnicity (Mon hamsa, Mon symbol, Mon culture, Mon tradition), Pathum Thani province symbol (Lotus, rice), occupation, rice farmer that are related to the information studied from the documents of Pathum Thani Province and according to the motto of Pathum Thani Province that “Land of Bua Luang, the city of rice grains, Mon people of Nakhon Dharma Pratumnak Ruamjai, Brighten Chao Phraya river, advance the industry”

2. The development of rice straw paper products of the community from the identity of local wisdom, from the study and visiting the research area found that identity and local wisdom of the community can use relevant information as a guideline for developing a creative basis for the design of unique community rice straw paper products and is a resource within the community to create and transform into products that reflect the identity of diverse communities resulting from participatory product development as follows:-

2.1 From the analysis, synthesizing relevant information. As a design basis, it was found that the community had a clear identity, such as a lotus flower, the provincial flower of Pathum Thani. Hamsa pole symbol and the traditions of the Mon people Phra Yod Thong of Wat Kai Tia that can be used as a guideline for creating products that reflect the identity of the community.

2.2 From the analysis, synthesizing relevant information. The researcher drafted a 2D model (Sketch) of community products from the identity of local wisdom and summarized the drafts of lotus flowers, Mon hamsa, centipede flag and hamsa pole for a model for using rice straw paper to make a prototype of community products from the identity of local wisdom, totaling six works.

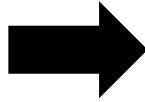
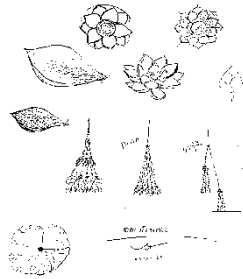


**Figure 1** The sketch of the lotus flower, Mon hamsa, centipede flag, hamsa pole & centipede flag, Phra Yod Thong, Phan Phum  
Source: Sonhom & Taravet, 2022

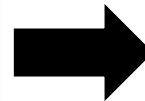
2.3 Make a prototype of community products from the identity of local wisdom. Product development uses rice paper, which is the main material, together with the production of rice and water hyacinth. There are also other materials which are assembled into complete pieces such as acrylic paint, wire, smooth beads, and other materials through the process of making community product prototypes from the

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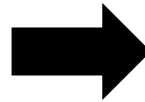
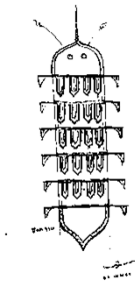
identity of local wisdom, such as cutting, folding, pleating, stringing, attaching, pasting, plugging, wrapping, and coloring. In conclusion, straw paper rice can be invented as a community product from six local wisdom identities as follows:-



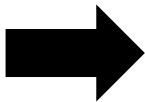
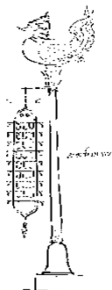
Lotus Flowers



Mon Hamsa

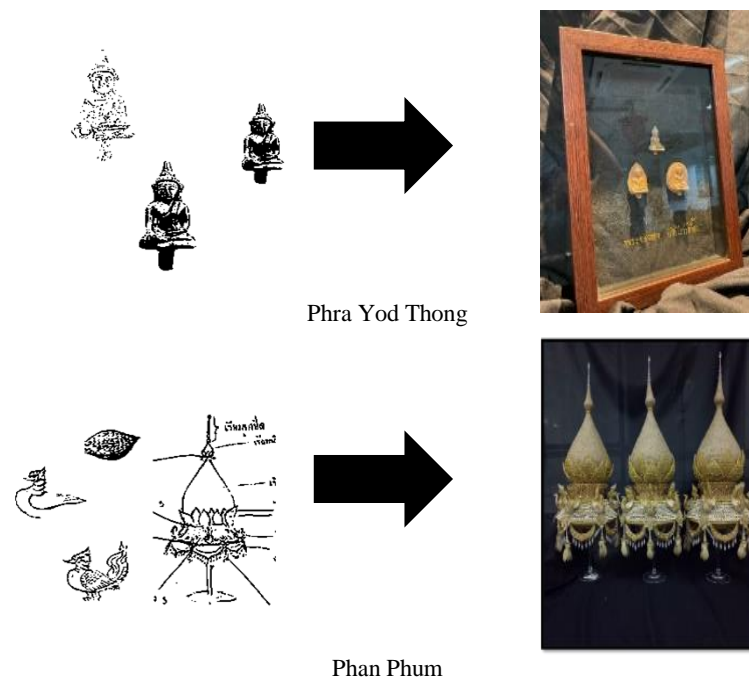


Centipede Flags



Hamsa Pole & Centipede Flag

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**Figure 2** Prototypes of community products from the identity of local wisdom  
Source: Sonhom & Taravet, 2022

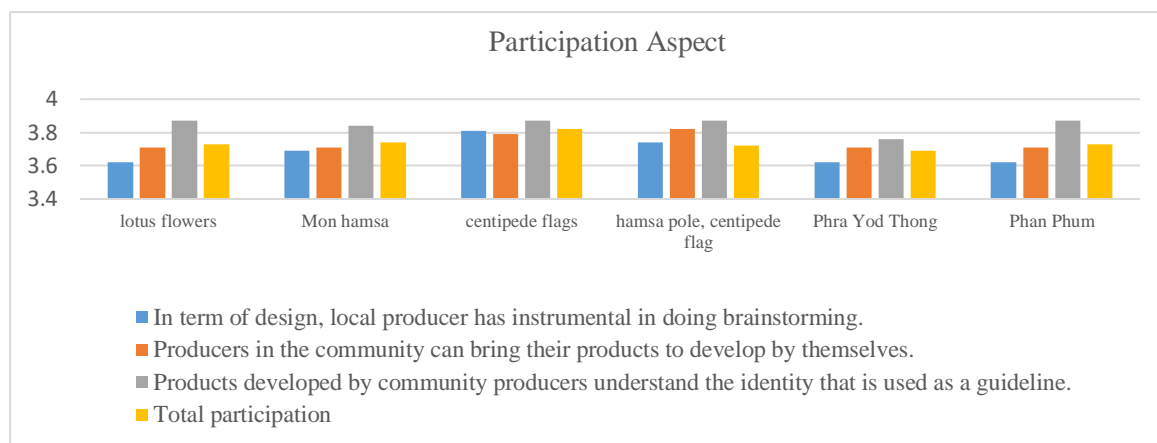
2.4. Assessment results of the opinions of rice straw paper products designed and developed from the identity of local wisdom.

The results of the evaluation of opinions on the product model of rice straw paper designed and developed from the identity of local wisdom. A total of 20 appraisers consisted of 3 experts, 2 representatives from the government in the community, 3 community leaders and potential community representatives, and 12 community members. By evaluating the model of rice straw paper products, which were designed and developed from the identity of local wisdom, the community evaluated all six prototype products according to development participation aspect in terms of meaning and utilization and average of all aspects as shown in the chart.

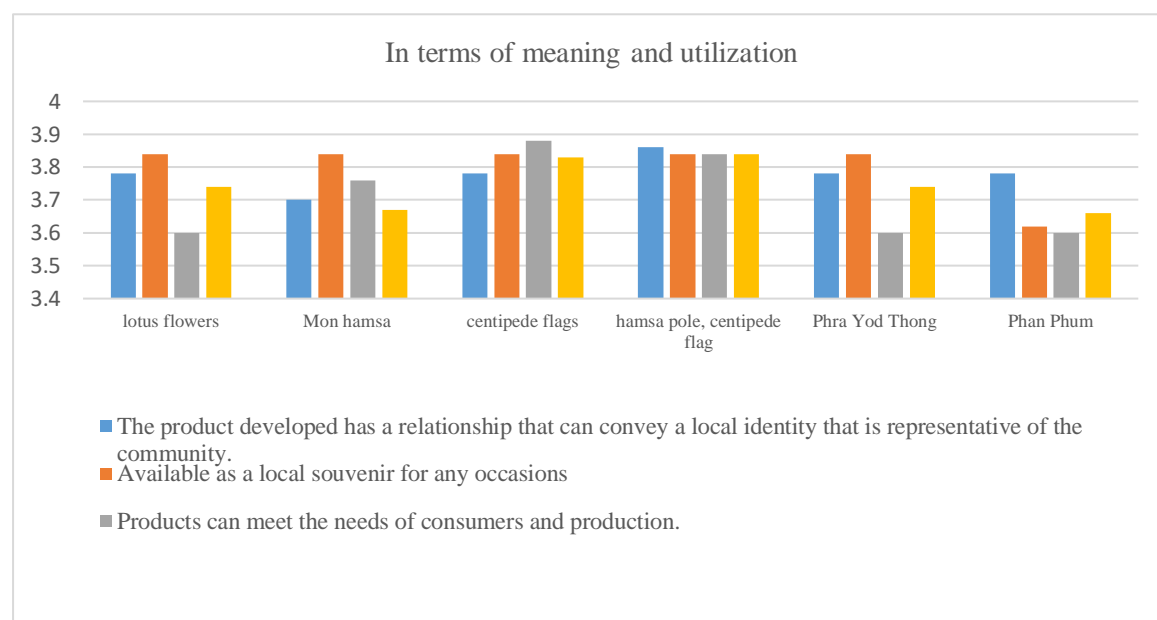


**Figure 3** Chart 1 of Development of rice straw paper products designed and developed from the identity of local wisdom.  
Source: Sonhom & Taravet, 2022

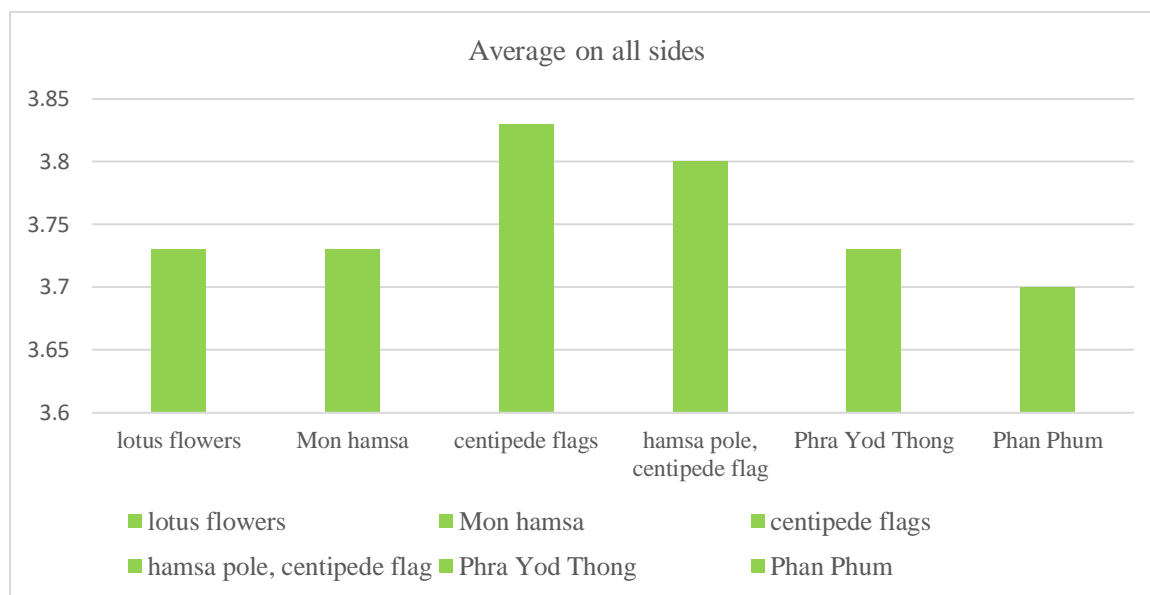
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**Figure 4** Chart 2 of Participation Aspect  
Source: Sonhom & Taravet, 2022



**Figure 5** Chart 3 of in terms of meaning and utilization  
Source: Sonhom & Taravet, 2022



**Figure 6** Chart 4 of Average of all aspects  
Source: Sonhom & Taravet, 2022

The result of evaluation of the rice straw paper product model designed and developed from the identity of local wisdom in all six products found that in the overview of all products according to development participation aspect in terms of meaning and utilization. The average results of all aspects were at the highest level ( $x = 3.75$ ,  $SD = 0.39$ ). Designed and developed from the identity of local wisdom, it was found that the centipede flag products from rice straw had the highest average ( $x = 3.83$ ,  $SD = 0.36$ ), followed by the hamsa pole with centipede flag products from rice straw paper ( $x = 3.80$ ,  $SD = 0.36$ ), Mon hamsa products from rice straw paper ( $x = 3.73$ ,  $SD = 0.42$ ), Phra Yodthong products from rice straw pulp ( $x = 3.73$ ,  $SD = 0.42$ ), Lotus flower products from rice straw paper ( $x = 3.73$ ,  $SD = 0.40$ ), and Phan Phum products from rice straw paper ( $x = 3.70$ ,  $SD = 0.43$ ), respectively.

The researcher used the two products that received the highest evaluation to study the consumer satisfaction of rice straw paper products from the identity of local wisdom and transfer the knowledge of the development of rice straw paper products from the identity of the local wisdom further.

## Discussion

### Study and development of rice straw paper products from the identity of local wisdom

From the study and development of rice straw paper products from the identity of local wisdom of Wat Kai Tia community, Krachaeng sub-district, Sam Khok district, Pathum Thani province. The issues raised for discussion were as follows:-

Identity and local wisdom of the community can bring relevant information, which is a guideline for product development, to be able to be creative in order to be the basis for designing products from rice straw paper that is unique in the community and is a resource within the community to create and transform into products that reflect the identity of a diverse community with cultural capital, such as lotus flowers, Mon hamsa, centipede flags and hamsa poles. Such issues are consistent with Siriphon Somburaburana studied the rehabilitation process and applied cultural heritage in the way of life of the local community: a case study of the Mon (Rmen) community, Sam Khok Sub-district, Sam Khok District, Pathum Thani Province, by traces of the Sam Khok local cultural heritage reflects the history and lifestyle of the Mon (Rmen) people in this area since immigration in the past. The cultural heritage has both tangible and abstract forms that have traces to be studied and passed on, which the image of the cultural heritage of the Mon Sam Khok has both objects and beliefs that continues to be inherited and lost but traces of Mon culture exists. For this reason, it raises awareness and wishes to revitalize or restore them under the context of changing society and culture, especially



Mon. In this area, it can be said that the uniqueness of being Mon or the feeling of being Mon is almost nonexistent. But the revival can happen because of the impetus of government agencies. It is important that "Ministry of Education", which plays an important role in promoting learning and making local people aware of their own cultural wisdom, thus making an important role in Cultural Council of provinces, districts and sub-districts and also in line with the issue of Suwanthada & Sikkha (2018) who have studied the design and development of community products using cultural and intellectual capital: in the upper northeastern region, it can be used to create and add value to community products consist of Ban Chiang Cultural Heritage, Sri Kotrabun-Lan Chang Cultural Heritage, and local cultural capital. The researcher conducted a cultural identity search that can lead to new product development applications and are classified into categories in the form of applied patterns, such as Ban Chiang pattern, Sri Kotbun-Lan Chang pattern, Phu Thai pattern, Tai Dam pattern. In addition, the identity in the belief culture was also used to create a new one to be suitable for the product, such as the Naga pattern in the belief culture of the people of the Mekong region, Ho Nang Usa - Thao Baros pattern and others.

### **Develop the community's rice straw paper products from the identity of the community's local wisdom with participation.**

From the development of rice straw paper products of the community from the identity of the local community with participation. The community can bring relevant information. It is a guideline for product development to be able to be creative in order to be the basis for designing products from rice straw paper that is unique in the community and is a resource within the community to create and transform into products that reflect the identity of diverse communities resulting from participatory product development in the design of the community has played a role in brainstorming. The community understands the identity as a guide, is skilled, and is able to apply the resources that exist in the community as a product that builds on cultural capital. The aforementioned issues are in line with Rachadaporn Ketanon, (Pinkum, 2017) From a study of guidelines for product development of local wisdom to promote creative economy in Nakhon Pathom Province, it was found that the comparison of the operations of the local wisdom product occupation group that was successful in the field of work was similar in the issue having a strong organizational structure, knowledge of group members competence and professional skills, appropriate technology is applied and have a vision in management and professional groups, there is a good strategy as well as the discovery of new strategies always in product development. Evaluation of rice straw paper product model opinions designed and developed from the identity of local wisdom. A total of 20 appraisers consisted of 3 experts, 2 representatives from the government in the community, 3 community leaders and potential community representatives and 12 community members by evaluating the model of rice straw paper products designed and developed from the identity of local wisdom, the community, all 6 prototype products. Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom (lotus products from rice straw paper) as a whole, it was rated at the highest level ( $x = 3.73$ ,  $SD = 0.40$ ). When considering each aspect, it was found that all assessments were rated at the highest level. In terms of development had the highest mean ( $x = 3.80$ ,  $SD = 0.39$ ), followed by the interpretation and utilization aspect ( $x = 3.74$ ,  $SD = 0.41$ ) and the participation aspect ( $x = 3.73$ ,  $SD = 0.42$ ), respectively.

Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom (Mon hamsa products from rice straw paper) in the overall picture is classified as the highest level ( $x = 3.73$ ,  $SD = 0.42$ ). When considering each aspect, it was found that all assessments were rated at the highest level. In terms of development, it had the highest mean ( $x = 3.77$ ,  $SD = 0.40$ ), followed by participation ( $x = 3.74$ ,  $SD = 0.44$ ), and the aspect of interpretation and utilization ( $x = 3.67$ ,  $SD = 0.42$ ), respectively.

Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom (Centipede flag products made from rice straw paper) in the overall picture, it was classified at the highest level ( $x = 3.83$ ,  $SD = 0.36$ ). When considering each aspect, it was found that all assessments were rated at the highest level. In terms of development, it had the highest mean ( $x = 3.85$ ,  $SD = 0.35$ ), followed by the interpretation and utilization aspect ( $x = 3.83$ ,  $SD = 0.37$ ) and the participation aspect ( $x = 3.82$ ,  $SD = 0.38$ ), respectively.

Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom (Hamsa pole and centipede flag pole products from rice straw paper) in the overall picture, it is

classified as the highest level ( $x = 3.80$ ,  $SD = 0.36$ ). When considering each aspect, it was found that all assessments were rated at the highest level. In terms of development, it had the highest mean ( $x = 3.85$ ,  $SD = 0.35$ ), followed by the interpretation and utilization aspect ( $x = 3.84$ ,  $SD = 0.36$ ) and the participation aspect ( $x = 3.72$ ,  $SD = 0.39$ ), respectively.

Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom (Phra Yodthong product from rice straw paper) in the overall picture is classified as the highest level ( $x = 3.73$ ,  $SD = 0.42$ ). When considering each aspect, it was found that all assessments were rated at the highest level. In terms of development, it had the highest mean ( $x = 3.76$ ,  $SD = 0.42$ ), followed by the interpretation and utilization aspect ( $x = 3.74$ ,  $SD = 0.41$ ) and the participation aspect ( $x = 3.69$ ,  $SD = 0.45$ ), respectively.

Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom (Phan Phum product from rice straw paper) in the overall picture is classified as the highest level ( $x = 3.70$ ,  $SD = 0.43$ ). When considering each aspect, it was found that all assessments were rated at the highest level. In terms of the participation, it had the highest mean ( $x = 3.73$ ,  $SD = 0.42$ ), followed by the development aspect with the highest mean ( $x = 3.72$ ,  $SD = 0.44$ ) and the interpretation and utilization aspect ( $x = 3.66$ ,  $SD = 0.44$ ), respectively.

Result of evaluation of rice straw paper product model designed and developed from the identity of local wisdom for all 6 products, it was found that, overall, all products were at the highest level ( $x = 3.75$ ,  $SD = 0.39$ ). Designed and developed from the identity of local wisdom, it was found that the centipede flag products made from rice straw had the highest average ( $x = 3.83$ ,  $SD = 0.36$ ), followed by the hamsa pole and centipede flag pole products from rice straw paper ( $x = 3.80$ ,  $SD = 0.36$ ), Mon hamsa products from rice straw paper ( $x = 3.73$ ,  $SD = 0.42$ ), Phra Yodthong products from rice straw pulp ( $x = 3.73$ ,  $SD = 0.42$ ), Lotus flower products from rice straw paper ( $x = 3.73$ ,  $SD = 0.40$ ) and Phan Phum product from rice straw paper ( $x = 3.70$ ,  $SD = 0.43$ ), respectively.

## **Suggestion**

### **Recommendations from research**

1. The study of cultural and intellectual capital in this research can be used as a guideline for finding other cultural capital. To be applied in the creation of product design and development.
2. Identity, way of life, culture and wisdom show the value of cultural capital. that can create value as a community product.
3. Encouraging community members to participate in product development makes the community proud and see self-worth.

## **Acknowledgment**

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## References

- Department of Science Service. (2012) *Doing good for the King: In honor of His Majesty the King on the auspicious occasion of the 7<sup>th</sup> Cycle Birthday Anniversary, 5 December 2011*. Bangkok, Thailand: Department of Science Service.
- Pinkum, S.(2017). Guidelines for product development of local wisdom for Promotion of Creative Economy in Nakhon Pathom Province . *Veridian E-Journal Silpakorn 75 University Thai version, Humanities, Social Sciences and Arts*. 10(1), 11-20.
- Sasongkroh, T., et al. (2008). *Research report on model design and development*. Surin silk packaging: Rajamangala University of Technology Phra Nakhon.
- Sonhom, W. (2011). *The development of reed paper for use in crafts*. Thesis, Master of Arts degree (Home Economics for Community Development) Ramkhamhaeng University.
- Suwanthada, P., & Sikkha, S. (2018). Design and development of community products by using cultural capital and wisdom: in the upper Northeastern region. *Academic Journal architecture art Naresuan University*, 9(2), 137-155.
- WadeeSirisak, N. (2012). *Innovation of Packaging Design for Aesthetic Marketing: A Case Study of Fruit Juice Packaging*. (Ph.D. Dissertation, University, Valaya Alongkorn Rajabhat University under the Royal Patronage of His Majesty the King, Thailand).
- Wongruchirawanich, S. (2014). *Buying behavior of consumers*. Bangkok, Thailand: The Office of the University Press , Sukhothai Thammathirat Open University.