

Developing Product by Increase Value of the Salted Fish Kulao by Pa Aon Tak Bai Community Enterprise

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Abstract

This study aims to 1) investigate the process of developing a new product, a smooth taste of healthy salted fish kulao in sunflower oil, for the community enterprise of salted fish kulao Pa Aon Takbai, Tambon Jeahe, Takbai District, Narathiwat Province. 2) Disseminate knowledge about the production process of smooth taste of healthy salted fish kulao in sunflower oil 3) Examine consumer acceptance of smooth taste of healthy salted fish kulao in sunflower oil. The research utilized a salt fermentation formula for 6 hours, resulting in a product with good characteristics, low salt content, a good taste, and no off-flavours. The taste test conducted with a sample group of 30 people found that the satisfaction level with the product's taste was high (mean value = 4.32). Additionally, a sample group of 22 people reported that the product was fragrant, delicious, and not too salty. Therefore, it can be concluded that consumers well received the smooth taste of healthy salted fish kulao in sunflower oil with low salt content. This research suggests that when developing food products, it is essential to have a healthy formula, as consumers increasingly prioritize their health.

Keywords *New product, Increase Value of the Salted Fish Kulao, Pa Aon Tak Bai Community Enterprise*

INTRODUCTION

The development of the creative economy is essential for developing the economy of Thailand, and it cannot be successful without the development of cultural capital. Cultural capital is an asset that provides cultural value. The term cultural capital began to be interested in the present because it is an essence of the creative industry. The aforementioned cultural capital has been developed into cultural products and services, which can incorporate various elements of cultural capital, such as stories, narratives, and the origins of local cultures. These elements are utilized to create innovative products and services that are outstanding, interesting, and worthwhile. This process establishes selling points to attract customers, transforming into a creative economy that reflects the unique identity of each locality. Cultural capital has a meaningful effect on economic value; it is an element of lifestyle choices, wisdom, and art (Pinkao, 2011; Janklab, 2020; Wichaidit et al., 2022).

Presently, many countries emphasize the importance of infusing creativity into their products and services to add value and differentiate themselves in the global market. Businesses also can leverage cultural capital, such as stories and the content of cultures, to create uniqueness, differentiation, or selling points for their products. The development of cultural capital to enhance economic value has become an integral part of the strategies of various countries. Government policies for developing cultural capital are implemented through various projects, and different

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agencies take responsibility for fostering a creative economy. Ministries such as the Ministry of Culture, Ministry of Industry, Ministry of Commerce, Ministry of Tourism and Sports (Tahom et al., 2018).

The major problem for community business entrepreneurs is being trapped in conventional thinking because they lack product development and marketing knowledge. According to Lertpongpiroon (2022), to solve this problem, the challenge is to integrate the community's capital, creative thinking and suitable technology to add value to the product. A government agency has fully prepared to support community enterprises like the Ministry of Industry. The ministry is committed to promoting community enterprises as a cornerstone of the local economy. The Department of Industrial Promotion (DIP) under the Ministry of Industry launched an initiative to innovate local industries called the Creative Industry Village (CIV). CIV refers to the community of balanced harmony, which integrates cultural capital, lifestyle, creative thinking, and design to enhance value and create new economic value for products. This approach aims to generate new economic value based on the concept of the creative industry. These creative villages will be proficient by adapting and combining preexisting local cultural knowledge and traditional wisdom with modern knowledge, technology, and innovations that can elevate community enterprises to sustainable SMEs capable of developing new products to further increase income.

For Thailand, food is one of the cultural heritages, and it has been widely praised globally as Thailand is a culinary hub. The causes of the richness and diversity of agricultural produce, coupled with the creative thinking and adaptation of available resources to create incredibly delicious cuisines. When it comes to discussing food, it is evident that Thai people are no strangers to the world. Thailand is known for abundant resources and an environment conducive to providing plants and animals with a rich array of nutrients, resulting in wholesome food for both humans and animals. The famous lines "in the water there is fish, in the fields there is rice" is a widely recognized societal awareness that Thailand is a country blessed with abundance, and its cuisine is so rich that the nation is often referred to as the "Golden Land" a land of rice and water. Narathiwat province is situated in the southernmost part of Thailand; the province is blessed with abundant natural resources and a diverse ecosystem comprising mountains, coastal areas, and the sea. The region is traversed by three major rivers: Sai Buri River, Sungai Kolok River, and Bang Nara River. In the district of Tak Bai, Narathiwat, these three rivers converge, creating a delta with a significant accumulation of mineral nutrients. This has resulted in a biologically rich and fertile environment. The wetlands in this area are abundant, providing a habitat for various species of plants and animals. The water in this region is rich in nutrients, making it a prime feeding ground for marine life, particularly the popular fish known as "Kulao".

Kulao Fish is a saltwater fish that thrives in these brackish waters. Known as abundant and flavorful meat, Kulao Fish is fatty, tender, and delicious. It has a distinctive taste due to its natural habitat, making it different from fish found in other areas. In essence, Narathiwat's natural richness and the unique characteristics of its rivers and wetlands contribute to the exceptional taste and quality of the Pla Kulao, which is found in the Tak Bai district. The fish known as "Kulao" scientifically goes by the name *Eleutheronema tetradactylum*. It has a generally elongated and slender body with a relatively thick and laterally compressed torso. The head is relatively small, and the mouth is slightly short with a slightly upturned tip. The eyes are covered with a fatty membrane and are located near the upper part of the head. The mouth is slightly oblique, and it has sharp teeth. A distinctive feature is the presence of four filamentous extensions on the lower part of the pectoral fins, commonly referred to as "whiskers" on the lower part of the operculum. The dorsal part of the body is grayish-green, while the ventral part is silvery-white. The posterior dorsal and caudal fins have gray spots at their tips, while other fins are yellow. Kulao Fish typically

measures between 40-60 centimeters on average, with the largest specimens reaching up to 2 meters. It is commonly found in river estuaries.

The traditional wisdom of the local community in Tambon Tak Bai, Narathiwat Province, is renowned for its expertise in making salted Kulao fish. It has been passed down through generations for nearly 100 years. Currently, salted Kulao fish from Tak Bai has been registered as a geographical indication (GI), indicating its distinctiveness and association with local geography. The flesh of salted Kulao fish from Tak Bai is dense and finely textured, and when fried, it becomes fluffy with a distinctive aromatic fragrance. This particular method of salted fish production has earned it the title of the "King of Salted Fish." It has become a well-known product of Tak Bai, Narathiwat Province, and is celebrated for its exquisite taste, surpassing salted fish from other provinces.

The creative cultural industry committees selected the community enterprises, namely Pa Aon - Tak Bai salted Kulao fish located in Jaeheha, Tak Bai district, Narathiwat province. Pa Aon salty Kulao fish has been a local heritage for over 50 years, inheriting the traditional salted fish production from previous generations and being recognized as an OTOP 5-star champion product. The process of making salted Kulao fish is a cultural heritage that has been passed down from generation to generation. Entrepreneurs aim to creatively infuse cultural capital into their products to differentiate them and add value. This cultural approach is crucial for creating a unique identity and adding value to the products, meeting the diverse tastes and preferences of consumers.

The development stemming from cultural capital contributes to the economic value of products. Entrepreneurs must analyze the multifaceted characteristics of the product to identify unique cultural and intellectual features that can be enhanced and developed. This involves utilizing creative thinking, knowledge, and appropriate technologies to improve the cultural and economic value of the product. In the case of salted Pla Kulao, the process involves examining cultural and traditional aspects that make the product distinctive. Entrepreneurs aim to harness cultural wisdom and incorporate it into the product development strategy. By adapting and enhancing cultural heritage, businesses can create products that appeal to consumer preferences while preserving and promoting cultural significance.

However, the current product of Pa Aon has an old traditional style. Researchers see the importance of introducing new products to diversify the options for consumers. In order to propose developing a healthier kulao in sunflower oil, aligning with suitable size in sunflower oil, extended product shelf life, reduced salt in formula while preserving the delicious taste. This creative idea aims to cater to health-conscious consumers while maintaining the unique flavor of kulao fish. Therefore, in light of this issue, the study aims to achieve several objectives, which are outlined as follows:

1. To create a new product with the smooth taste of healthy kulao fish in sunflower oil, a ready to-eat product for Pa Aon Tak Bai community enterprise, Jaehe Sub-district, Tak Bai District, Narathiwat Province.
2. To disseminate knowledge about the production process of the smooth taste of healthy kulao fish in sunflower oil, the ready-to-eat product.
3. To study consumer acceptance of the ready-to-eat product's formula for the smooth taste of healthy kulao fish in sunflower oil.
4. Design the logo, label, and graphics for Pa Aon Pla Kulao's Healthy Flavor in Sunflower Oil, Ready to Cook.

LITERATURE REVIEW

The enhancement of Thailand's community enterprise emphasizes a holistic approach based on human capital and community assets, including traditional knowledge, local wisdom and

culture. These elements are integrated into the production process creating unique products or services that reflect the local identity and generate income for the community. The value added involves creating uniqueness and competitiveness for community products by fostering creativity in production processes, raw materials, and product development suitable for consumer needs. The key to successful value addition lies in balancing "identity" and "value." Identity represents the distinctive local character, while value is about generating income. Therefore, cultural product development should incorporate storytelling that reflects the local identity into the products, conveying meaningful narratives that showcase their intrinsic value (Tahom & Senarat, 2019).

The community industry in Thailand gained cultural and intellectual capital that has built a comparative advantage for a long time. This includes natural resources, cultural heritage, intellectual property, and local identities inherited from generation to generation. The Ministry of Industry, through the Department for the Promotion of Industry, recognizes the importance of strengthening community industries by creating added value for the grassroots economy. The ministry aims to achieve this by expanding projects to develop industrial villages for tourism in every province. This initiative began in 1997 and has evolved over the years. In the fiscal year 2020, there was a specific focus on the sustainable development of Creative Industry Villages (CIV). The emphasis is on creating added value for community products and services through creativity and technology. The main objective is to provide communities with added value for souvenir packaging products and enhance capabilities in management and access to modern market channels.

As a result, communities actively push forward and elevate creative industry villages independently. This effort enables them to generate sustainable income in the long run. According to the Thailand 4.0 development strategy, the focus is on fostering innovation for the sustainable growth of the economy. The target group was entrepreneurs of community enterprises or community business owners who produce and distribute community products.

Some prior research has already discussed this topic using various case studies and points of view. For instance, the study by Somkeatkun and Ruengdet (2022) examines the processing of Chaiya rice, a local product from Chaiya District in Surat Thani Province, with the primary objective of enhancing its value. The researchers propose leveraging existing knowledge to diversify product offerings while integrating elements of local wisdom into the development process. This approach aims to establish distinctive and innovative product formats, thereby improving both the quality and market value of the rice.

Another study by Taikham (2014) examined the challenges encountered by community enterprises, highlighting key issues such as the underutilization of local wisdom in fostering development and a tendency to engage in activities that fail to align with market demands. Their findings emphasized a significant lack of understanding regarding market trends and consumer behaviour, which often produces goods that do not adequately address market needs.

Additionally, there is a lack of research and innovation in product development for market entry. Given these challenges, it is crucial to urgently develop creative product models to enhance the value of community enterprises. This is seen as a necessity to elevate community enterprises and local economies. Therefore, the adaptation of the traditional salted snakehead fish to the innovative round dumpling recipe for a healthy option in ready-to-eat sunflower oil is a way to utilize local resources, local identity, and local wisdom. This approach creates a new product that adds value through product diversity, providing consumers with increased choices and value-added options.

Maneeroj et al. (2021) also highlighted a significant challenge faced by community enterprises: the repetitive production of similar products. This redundancy contributes to market saturation, intensifying competition among producers offering indistinguishable goods. To remain competitive and capture consumer interest, products must be continuously developed through

innovation and differentiation, enabling them to stand out in a crowded marketplace. Such strategies are crucial to meeting the dynamic and ever-changing demands of consumers. Producers should focus on consistently enhancing their products by incorporating elements of local wisdom and tailoring them to the specific needs and preferences of their target audience.

Another study by [Srivong et al. \(2021\)](#) examined the factors influencing purchasing decisions for the Salt of the Earth product, developed by a community enterprise in Ban Dung Nuea. Their research highlights the importance of recognizing the product's potential, defined by its innovative characteristics and adaptations to meet customer demands. The study predicts that purchasing decisions for the Salt of the Earth product is influenced by approximately 24.70%, driven by the development of diverse product formats, such as spa salts and health-enhancing coloured salt flowers. To broaden its market appeal, the researchers recommend designing more varied products to cater to a wider audience.

The development of products within community enterprises should carefully integrate the preservation of traditional wisdom alongside the incorporation of contemporary knowledge ([Tancharoen, 2017](#)). Ensuring that community products are modern, aligned with current market lifestyles, and attentive to health care trends—particularly those that prioritize consumer well-being—is paramount. Furthermore, community members place significant emphasis on experiential learning, fostering continuous development, and remaining receptive to new knowledge. Intellectual growth is further enhanced through actively acquiring knowledge and a consistent openness to diverse perspectives and opinions.

From relevant research, it can be summarized that developing products to increase the value of community enterprises involves tapping into the local knowledge stream, which serves as an opportunity for these enterprises to produce goods using local raw materials. This aligns with the current trend of creative thinking following popular trends where global society still places importance on health care and the development of products that differ from conventional ones.

RESEARCH METHOD

This research is an R&D project employing participatory action research (PAR) involving collaboration with community enterprises. The project includes community enterprise groups, staff members, and academic teams to develop a prototype product that can be commercially distributed.

Step 1

The development of the formula for the smooth taste of kulao fish involves research that starts with fresh kulao fish weighing 700 grams, which is cleaned and mixed with salt, divided into 3 different formulas. Formula 1 is left to ferment for 1 hour, formula 2 for 3 hours, and formula 3 for 6 hours. Afterwards, the fish is sun-dried, tied with a string at the tail and head, and left to dry for about 5-7 days (See Figure 1).



Figure 1. The process of making a flavorful recipe of kulao fish

Step 2

A consulting team and entrepreneurs conduct a tasting and satisfaction evaluation (See Figure 2).



Figure 2. A flavorful recipe for kulao fish after fried

Step 3

The process of developing and experimentally producing the smooth taste of healthy Kulao fish in sunflower oil, the ready-to-eat product, is presented in the flowchart below (See Figure 3).

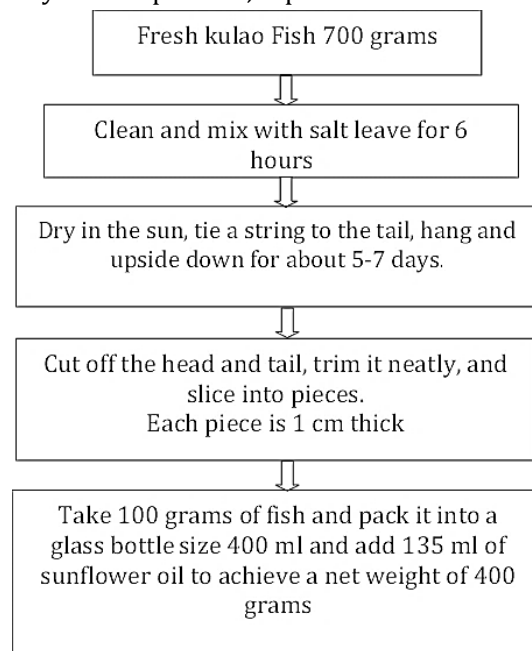


Figure 3. The steps for processing Kulao fish with a flavorful recipe for a healthy option in ready-to-eat sunflower oil

Step 4

The researcher demonstrates the product's production process, the smooth taste of healthy salted Kulao fish in sunflower oil.

Step 5

The newly developed product, the smooth taste of healthy Kulao fish in sunflower oil, is a ready-to-eat product with a target group of 30 individuals. The researcher collects data from questionnaires to assess satisfaction with the new product and performs data analysis to calculate averages and standard deviations to summarize and analyze the data. The scales utilized in the questionnaire are interpreted as follows: 4.50-5.00 (the highest level of satisfaction), 3.50-4.49 (very satisfied), 2.50-3.49 (moderately satisfied), 1.50-2.49 (low level of satisfaction), and 1.00-1.49 (the least satisfaction).

Step 6

Design the logo, label, and graphics for the packaging of "Pa Aon Pla Kulao's Healthy Flavor in Sunflower Oil Ready to Cook." In this research, the researcher conducted data analysis, starting with fieldwork to gather information. This included observing the physical environment, context, community lifestyle, opinions, beliefs, culture, and local wisdom.

FINDINGS AND DISCUSSION

Through the research process, several noteworthy findings have emerged, as outlined below:

1. The study found that for formula 1, with 3 hours of fermentation, the fish became rotten and emitted a foul odour. Formula 2, with 3 hours of fermentation, had a bitter taste after frying. However, formula 3, with 6 hours of fermentation after frying, resulted in low salt content, a good taste, and no bitterness. Therefore, the research team selected Formula 3 to develop the smooth taste of healthy salted fish kulao in sunflower oil, the ready-to-eat product.
2. The transfer of knowledge in the development of Kulao fish with a flavorful recipe for a healthy option in ready-to-eat sunflower oil is shown in Figure 4.



Figure 4. The transfer of knowledge for the development kulao fish with the flavorful recipe

- After taste testing, it was found that the sample group had a high level of satisfaction with the smooth taste of healthy salted fish kulao in sunflower oil, the ready-to-eat product (average score = 4.32). In-depth survey results and feedback from the sample group indicated that consumers liked the product, with comments such as "delicious", "very tasty and fragrant", "very delicious", "taste is just right", "the taste is good enough", "fragrant aroma", "delicious, not too salty", "fragrant and tasty" "fragrant", "smooth", "the taste is okay".



Figure 5. Tasting Test

- Design the logo, label, and graphics for the packaging of "Pa Aon Pla Kulao Healthy Flavor in Sunflower Oil Ready to Cook." The study of the identity of Narathiwat revealed that the "Ko Lae" boat is an important symbol of the province.



Figure 6. Patterns on the "Ko- Lae" boat

It is a symbol of local art and culture in southern Thailand. The "Ko - Lae" boat is a traditional fishing vessel used by the Muslim community in Narathiwat, which is notable for its unique characteristics that reflect local wisdom and artistic beauty. The design and decoration of the "Gao Lae" often feature vibrant colors and patterns, with designs that combine Islamic art with Thai and Malay motifs. These patterns typically represent local beliefs and culture. Therefore, the "Ko - Lae" is not just a fishing tool; it is also a significant symbol of identity and culture in Narathiwat. This has led entrepreneurs to incorporate

local identity into the graphic design of the packaging for “Pa Ouan Pla Kulao Healthy Flavor in Sunflower Oil Ready to Cook.



Figure 7. Products from the community enterprise "Pa Aon Salted Kulao Fish."

Information about the community enterprise "Pa Aon Salted Kulao Fish"

The community enterprise "Pa Aon Salted Kulao Fish" is committed to enhancing local wisdom through innovation by developing a diverse range of food menus and designing a logo as well as packaging for its products. This development begins with the involvement of entrepreneurs, who are consulted about their communication needs with consumers, as well as their preferences for logo design, product labels, and packaging, in addition to developing promotional materials. To add value to the products, the enterprise has chosen a friendly and cute cartoon image of "Pa Aon" as a highlight for the logo. For the product label, red is used, decorated with graphic patterns of the "Ko - Lae" boat, inspired by the bright and vibrant colors of the boat designs.



Figure 8. Extracting the desired character and illustrating it as a cartoon to highlight the logo



Figure 9. Applying local identity in the graphic design on the packaging

Applying local identity in the graphic design on packaging involves integrating the culture and unique characteristics of the locality into the graphic design. This creates packaging that is not only visually appealing but also conveys the uniqueness of the region. It can enhance product recognition and interest, as well as increase brand credibility in the eyes of consumers. The "Ko - Lae" boat represents a distinctive art form of Narathiwat province. Using these patterns and vibrant colours on the packaging reinforces the product's connection to local culture and communicates its values and uniqueness.



Figure 10. Using "Ko- Lae" boat patterns in the graphic design on the packaging



Figure 11. Packaging for “Pa Aon Pla Kulao Healthy Flavor in Sunflower Oil Ready to Cook”

Glass packaging is clear, strong, retains shape, and is resistant to internal pressure, temperature, and sudden temperature changes (30-80 degrees Celsius). It effectively prevents

moisture and gas infiltration and exhibits chemical inertness (Saiwaew, 2020). Due to these properties, glass packaging is suitable for containing "Pa Aon Pla Kulao Healthy Flavor in Sunflower Oil Ready to Cook".

The studying a recipe for creating new products from kulao fish as a unique product of the community in Amphoe tak Bai Narathiwat, a case study of the community enterprise Pa Aon Tak Bai, which produces salted kulao fish, it has been identified that there is a need to improve the existing recipe. The proposed new flavorful recipe for a healthy option in ready-to-eat sunflower oil, aligning with the research by Sathongkam et al. (2022) stated that community enterprises should improve the development of products that are unique and different from those of other groups. It is suggested that customer satisfaction be assessed before production and distribution. Currently, several community enterprises efforts to create local products that attract consumer demand. Therefore, community enterprise groups must emphasize product development by adding value to products that can meet consumer needs.

Community enterprises have gained new knowledge regarding the transfer of technology for processing the Kulao fish product, a new flavorful recipe for a healthy option in ready-to-eat sunflower oil. This knowledge can be utilized to enhance production and distribution, generating increased income for the community and leading to community development. This aligns with the research work conducted by Suriyasarn et al. (2022), who stated that the concept of developing new products to create value and enhance the community's economic stability aligns with the principles of sustainable livelihoods and income generation. It aims to create market competitiveness within the context of local wisdom, contributing to the community's sustainable development by generating value and income.

Based on the assessment of consumer satisfaction levels regarding the round dumpling recipe for a healthy option in ready-to-eat sunflower oil made from snakehead fish, the results indicate a high level of satisfaction. This is attributed to the increasing consumer desire for health consciousness, leading to a preference for health-oriented food consumption. There is a growing demand for the full benefits derived from healthy food products, emphasizing the importance of food safety in consumption (Pluphrach & Smith, 2020).

The design of logos and packaging to reflect local culture and convey the values and identity of products is crucial for the new product from the community enterprise "Pak Klem Kulau Klem Pa Auan, Tak Bai." A participatory research method was employed to inquire about the logo design preferences of the entrepreneurs. It was found that they wanted a logo that represented their identity, specifically designing a cartoon character named "Pa Auan" with a smiling face. This universal symbol conveys happiness, friendliness, and warmth—qualities that can effectively create a personality for the community enterprise's brand and enhance the brand image by linking it with the friendliness of the entrepreneurs. The character's personality directly reflects the brand and serves as a factor that fosters an emotional bond between the brand and consumers (Human Personality Traits).

Creating a brand personality involves defining specific characteristics that clearly distinguish it from competitors. Additionally, Aaker (1996) emphasized the importance of developing brand personality by applying human traits and attributes to products to create differentiation and memorability (Ngamcharoenmongkol & Auemsuvarn, 2020). The graphic design on the packaging label for "Pa Auan Pak Kulau Health Recipe in Sunflower Oil Ready to Cook" incorporates patterns from the traditional "Koh" boat, a distinctive cultural symbol of the area. Utilizing this pattern effectively connects art and packaging, exemplifying the use of cultural assets to support the creative economy. This creation, derived from cultural identity, not only adds value to the product but also effectively attracts the attention of both tourists and general consumers

(Siangkhong, 2020).

CONCLUSIONS

Community enterprises must possess the ability to adapt and develop products that align with evolving market demands, particularly in a contemporary era where consumers demonstrate a growing health consciousness. The development of new products should take into account the community's identity and available raw materials to create differentiation and add value to the products. Key concepts regarding the use of cultural capital in graphic design on packaging labels—particularly the use of patterns from the traditional "Ko-lae" boat, a cultural symbol of the local area—highlight that this approach is not merely for decorative purposes. It reflects a connection between local art and the product, creating a harmonious alignment between culture and commerce. This serves as an example of how "cultural capital" can be applied in the "creative economy."

Utilizing local patterns in design not only adds value to the product but also effectively attracts the attention of tourists and general consumers. This illustrates how culture can be transformed into economic value while promoting pride in local identity. Simultaneously, it acts as a means to encourage the creative economy—an idea that emphasizes the use of creativity and culture to sustainably develop economic growth.

LIMITATION & FURTHER RESEARCH

In this program, only the Pa Aon community enterprise from the industry cultural village was selected. Future R&D projects will involve more community enterprises collaborating to transfer and generate new knowledge for the communities. Further research should explore the potential of communities in market channels and distribution.

REFERENCES

- Aaker, D. A. (1996). Measuring Brand Equity across Products and Markets. *California Management Review*, 38, 102-120. <http://dx.doi.org/10.2307/41165845>.
- Janklab, E. (2020). *Cultural Capital Management Guidelines for promoting creative economic development: A case study of Nakhon Si Thammarat Provincial Cultural Office* [Master Thesis, Chulalongkorn University]. Chula Digital Collections. <https://doi.org/10.58837/CHULA.IS.2020.455>
- Lertpongpiroon, P. (2022). An Analysis Potential and Cost of Production of Community Enterprises in Ontai Sub-District for Sustainable Development. *Journal for Strategy and Enterprise Competitiveness*, 1(1), 18-31.
- Maneeroj, N., Limpanitgul, T., Toprayun, Y., & Yaemchim, N. (2021). Product development of Rungmanee Phatthana Community Enterprise, Wang Thonglang District, Bangkok. *SAU Journal of Social Sciences & Humanities*, 5(1), 176-195.
- Ngamcharoenmongkol, P., & Auemsuvarn, P. (2020). Brand Personality: Conceptualization and Measurement. *NIDA Business Journal*, 27(2020), 60-75.
- Pinkaeo, K. (2011). Creative economy, cultural capital and business opportunity. *Executive Journal*, 31(1), 32-37.
- Pluphrach, K. & Smith, N. (2020). Behaviors and Needs in Healthy Food Products of Consumer in Bangkok. *Dusit Thani College Journal*, 14(2), 307-322.
- Saiwaew, R. (2020). *Techniques for Selecting Packaging*. Retrieved December 21, 2023 from www4.fisheries.go.th/local/file_document/20200508145638_new.pdf
- Sathongkam, T., Taiwan, D., & Tungsuwan, A. (2022). Product development model of community enterprise group meeting the needs of customer in the future. *Western University Research*

- Journal of Humanities and Social Science*, 8(1), 239-250.
- Siangkhang, S. (2020). *Creating Prototype Patterns from the Cultural Identity of Chonburi for Use in Packaging Design*. Final Research Report for the Creative Research and Innovation Grant Project, Faculty of Fine and Applied Arts, Burapha University.
- Somkeatkun, W. & Ruengdet, K. (2021). The creating added value for Chaiya Native Rice in Chaiya District, Surat Thani Province. Research & Development. *Journal Loei Rajabhat University*, 16(56), 31 – 42.
- Srivong, A. T., Daugprom, D., & Srisunthron, C. (2021). Product development from rock salt of Ban Dung Nuea Community enterprise group Ban Dung District Udon Thani. *SAU Journal of Social Sciences & Humanities*, 5(2), 343 – 352.
- Suriyasarn, T., Thitiyapramote, N., Khamrach, C., & Langkhunsaen, S. (2022). Product Development of Germinated Brown Rice Berry Juice for Health Organic Agriculture Wor-Kaew Community Enterprise Group, Lampang Province. *Area Based Development Research Journal*, 14(2), 122–133.
- Tahom, U., Dhurata, S., Bungtong, C., & Wongsak, K. (2018). The model for maximizing the local food Product value of “Tampiangsongkruang” (bamboo shoot mixed with extra- ingredients) to strengthen Ban Samet Community Economy of Nongtong Sub-District, Krasang District, Buriram Province. *Journal of Social Development*, 20(2), 35 – 61.
- Tahom, U., & Senarat, S. (2019). Course of adding economic value to rolled wafer Cultural product of Baan Yang community enterprise group, Baan Yangsub-District, Muang District, Buriram Province. *Journal of Research and Development Buriram Rajabhat University*, 14(1).
- Taikham, S. (2014). *The development of creative product model to value-added of the small and micro community enterprises in Ratchaburi Province* [Theses, Silpakorn University]. <https://sure.su.ac.th/xmlui/handle/123456789/13744>.
- Tancharoen, S. (2017). Community based tourism management and sustainable tourism development of Bangkantaek community in Samutsongkhram Province. *Journal of International of Thai Tourism*, 13(2), 1-24.
- Wichaidit, S., Kongmanon, S., & Buatama, P. (2022). Value addition of local woven wisdoms toward creative tourism. *Journal of Modern Learning Development*, 7(3), 347 – 364.