Rice culture: A product development model for community culture in the Isan region

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Abstract
This investigation has three principal research aims: 1) to study the background and history of traditional rice culture in Northeastern Thailand; 2) to study the current state of traditional rice culture in Northeastern Thailand and associated problems; 3) to study the rice culture product development model for community culture in the Isan region. Data for this investigation was collected from document analysis and field research with 126 individuals in three provinces in Northeastern of Thailand. The results showed that there has been continuous development of rice culture in Thailand since pre-history. Rice is a staple food of Thai people. It was found that rice-based products in Thailand, including kanomjeen, krayasatorn, namkaoglong, lodchong and gung jom, are produced either by means of traditional methods or an adapted process. The majority of goods are packaged in plastic bags and not all products are standardized. In order to develop the transformed rice products and thus rice culture of Northeastern Thailand, producers should produce raw materials themselves, develop packaging and support local government institutions to create a set of standards for local products.

Keywords: community, development, product, rice culture, traditional knowledge

บทคัดย่อ
งานวิจัยนี้มีความมุ่งหมายเพื่อ 1) เพื่อศึกษาความเป็นมาของผลิตภัณฑ์วัฒนธรรมข้าวภาคอีสาน 2) เพื่อศึกษาสภาพปัจจุบัน และปัญหาผลิตภัณฑ์วัฒนธรรมข้าวภาคอีสาน 3) เพื่อศึกษารูปแบบการพัฒนาผลิตภัณฑ์วัฒนธรรมข้าวเพื่อเศรษฐกิจชุมชนภาคอีสาน การวิจัยครั้งนี้ได้เก็บข้อมูลจากเอกสาร และเก็บข้อมูลภาคสนาม โดยกำหนดพื้นที่จำนวน 3 จังหวัด เป็นพื้นที่ในการศึกษาประชากรและกลุ่มตัวอย่างที่เป็นผู้ให้ข้อมูลมีจำนวน 126 คน ผลการวิจัยพบว่ามีพัฒนาการมาพร้อมกับความเจริญของมนุษยชาติที่มีชุมชนขึ้นด้านประวัติศาสตร์ เกษตรพืชผักผลไม้ในภาคอีสานของเกษตรกรรมข้าว นั่นก็คือข้าวกระยาสารท น้ำข้าวกล่อง ข้าวต้มข้าว firefox ข้าวต้มข้าวเจียวได้รับการผลิตอยู่ 2 ลักษณะ รูปแบบการพัฒนาข้าวมีการจัดหาวัตถุดิบจัดหาพื้นที่เพาะปลูกที่ดีส่งเสริมให้ชุมชนได้ผลิตข้าวอยู่ดี ข้าวมักจะมีการตรวจสอบความปลอดภัยของผู้บริโภค ผลิตภัณฑ์ข้าวนั้นมีมูลค่าเพิ่มขึ้น ชุมชนมีรายได้ด้วยการพึ่งตนเอง

คำสำคัญ: ข้าวชน, การพัฒนา, วัฒนธรรมข้าว, ภูมิปัญญาพื้นบ้าน

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Introduction

Rice has been an integral part of many world civilizations for thousands of years. Given this importance, rice-farming has spawned and affected many customs and traditions in society, such as harvest festivals. However, the development of modern technology has caused rice-farming methods, techniques and practices to change. These changes have had an impact on the traditional culture of rice-farming societies, who have often been unable to keep up with the pace of technological change and economic demands [1].

One consequence of change in rice-farming societies is the falling price of rice. Traditionally, rice was farmed in Thailand for household consumption. This subsistence farming gradually shifted to commercial farming as material culture grew and locals needed to sell their produce to generate income. Now, a large percentage of the Thai rice harvest is exported worldwide. At one stage, Thailand was the leading international rice exporter. However, increasing competition from Indian and Vietnamese companies selling rice in higher quantities at cheaper prices has caused Thai export rice prices to fall [2]. In addition, a higher worldwide demand than supply has slogged Thai rice producer to export their produce rather than sell within the country and domestic prices have dropped.

Aside from being an important commercial export, rice and the rice farming industry reveal much about the changing nature of Thai culture [3]. Due to the commercialization of rice production and competitive sales driven by profits, the traditional culture related to rice farming and harvest in Thailand has been neglected. This neglect has led to the weakening of traditional cultural heritage in Thailand and could cause the rice culture to disappear altogether in the coming years [3]. Given the precarious nature of traditional rice culture, this investigation, “Rice culture: A product development model for community culture in the Isan region” was designed to research traditional is an culture related to rice farming and harvest and to develop a model to protect and conserve this culture in local communities.

Research methodology

Research methodology for this qualitative investigation was based on the guidelines for cultural qualitative research created by Songkoon Chantachon [4]. Accordingly, data were collected by both document analysis and field research. The timeframe for data collection was between 26th February 2013 and 26th November 2013. The research area was purposively selected so that the best location was chosen for analysis of rice production and investigation according to the research aims. From a possible 20 provinces in the Northeastern region of Thailand, the research team applied a two-way purposive selection method. The first criterion was the presence of rice production companies with an established history of over 15 years. These were determined by snowball sampling from the advice of local experts. The second criterion was the employment of modern techniques and machinery by these companies to ensure that progress and development could be charted from the past to the present. Two districts from each of three provinces comprised the final research area: Nakhon Ratchasima, Chaiyaphum and Buriram. The researchers also chose to analyze rice products in four categories (sweet food, spicy food, prepared food and drinks) aimed at four consumer groups (children, the general public, the sick and the elderly). The research population consisted of residents and workers in each of the district. The research sample was purposively selected from this group and divided into three sub-groups. There were key informants, casual informants and general informants. The total number of respondents for the investigation was 123 individuals. Tools used for data collection were basic survey, structured and unstructured interviews,
participant and non-participant observation and focus group discussions with 6-8 key informants. Data were categorized according to the three aims of the research and analyses by typological analysis and analytic induction. All data were validated using a triangulation technique. The results are presented below as a descriptive analysis.

**Results**

Rice culture has developed in Thailand throughout the course of history. Early evidence of a rice culture in Thailand has been found by archaeological excavation at Ban Chiang, Nonenokata, Ban Koke and Phuwiang. Remnants of clay pots used to store and cook rice have been found, along with cave paintings depicting the cultivation and consumption of rice over 5,500 years ago. Moreover, rice husks have been found as part of the composition of bricks used to construct ancient homes. Initially, glutinous rice was the only strain of rice cultivated in Thailand but, from the 11th to 20th Buddhist centuries, the non-glutinous form became increasingly popular.

In the early stages, rice was produced for consumption within the home and for distribution to family members. During festivals, surplus rice was produced to feed visitors and offer to the temples. As visitors tried the rice from the Northeast, they commented on its delicious taste and consistency. Locals thus decided to produce extra rice for sale. Initially individuals produced rice for trade but eventually the farmers worked together and formed businesses. Over time, locals transformed the rice into products for sale, including kanomjeen (rice noodles), local snacks, desserts and chili pastes. These products are now famous as part of the identity in each of the three provinces.

**Current conditions and problems**

The three provinces of Nakhon Ratchasima, Chaiyaphum and Buriram were studied to find out about the current state and problems with the local rice culture. Four transformed rice products were examined in each province. The current state and problems with production of each of these products are detailed below:

**Kanomjeen Pradoke** from Pradoke Sub-district, Nakhon Ratchasima is made from broken milled rice bought from Banbu Rice Mill, Nakhon Ratchasima. The product is packaged in large baskets for wholesale or various-sized baskets for individual sale and plastic bags are required for bulk purchases. Good kanomjeen have little flavor and are not sour (sourness comes from insufficient soaking). Costs can be kept low by transporting rice independently, using family labor and growing banana trees to use the leaves as lining for the packaging (rather than buying in).

**Mee Ban Ta Daeng** from Samreut Sub-District, Nakhon Ratchasima is made from aged Tah Haeng rice bought from local markets. Plastic bags are ordered in batches of 20-30 thousand and last for about three years. Plastic bags must be ordered in large quantities to ensure low prices. The noodles should have a mellow, delicate taste. The price of rice is expensive, making the noodles more expensive.

**Lod Chong Ban Takratum** from Takratum Sub-District, Nakhon Ratchasima is made from milled rice, slaked lime water and pandan. Products are sold in plastic bags in 1 kg or 5 kg sizes and the flavor is subtle. The price of rice, pandan and slaked lime is expensive, making the lodchong more expensive.

**Krayasatorn Ban Kam** from Nai Mueang Sub-District, Nakhon Ratchasima is made from rice, coconut milk, coconut sugar, nuts, sesame seeds, water and lime juice. Boxes, stickers (ordered by the 100,000) and plastic bags are used for packaging. The flavor of the product is sweet and creamy. Prices are high.
because some products are ordered from outside the community, such as coconut sugar, nuts and sesame seeds. This is a standardized product.

Nam Kao Glong Nok from Dong Yai Sub-District, Nakhon Ratchasima is made from Jasmine rice, Job’s tears, nuts, sesame seeds and sugar. 100 plastic bottles are used and ordered daily. The flavor is fragrant, delicate, not too sweet, slightly salty – nowadays the base flavors are very similar but these are adapted to the market (sweeter, saltier and creamier). Production cost for 100 bottles is approximately 2000-3000 baht.

Kanom Jeen Kud Nam Sai from Kud Nam Sai Sub-District, Chaiyaphum is made from dough bought from Khon Kaen province. Noodles are packaged in various-sized plastic baskets, plastic bags and foam dishes. They have little flavor and are not sour. The dough price is not fixed and sometimes deliveries are late.

Mee Ban Pet from Ban Pet Sub-District, Chaiyaphum are made from high-quality milled rice. Products are packaged in plastic bags branded with the leaf of the Bodhi Tree. The flavor is mellow and delicate. The price of mee is based on the market price of rice. This is a standardized product.

Krayasatorn Ban Hua Tale from Hua Tale Sub-District, Chaiyaphum Province is made from rice, coconut milk, coconut sugar, nuts, sesame seeds, water and lime juice. All ingredients are ordered from different locations. Products are packaged in boxes ordered from the PhraNakorn Technology Institute due to sponsorship and plastic bags ordered in batches of 200,000 at 40 satang per bag. The flavor is sweet. Creamy and fragrant. Prices are high because some products are ordered from outside the community, such as coconut sugar, nuts and sesame seeds. This is a standardized product.

Kanom Jeen Ban PraKone Chai from Pra PraKone Chai Sub-District, Buriram is made from dough bought from Surin Province. Products are packaged in various-sized plastic baskets and plastic bags with banana leaf lining. The kanomjeen have little flavour and are not sour. The price is determined by the cost of the dough.

Krayasatorn Ban PraKone Chai from PraKone Chai Sub-district, Buriram is made from rice, coconut milk, coconut sugar, nuts, sesame seeds, water, lime juice. All ingredients are ordered from different locations. The product is packaged in plastic covered boxes suitable for purchase as a gift and plastic bags. The final product is sweet. Crispy, creamy and fragrant. Prices are high because products are ordered from outside the community. This is a standardized product.

Gung Jom Ban Pra Kone Chai from Pra Kone Chai Sub-district, Buriram is made from freshwater shrimp, ground rice, fish sauce and rock salt. The product requires two plastic bags per serving, tied with an elastic band. The gung jom should be sour and salty (depending on the level and length of the marinade). Prices increase in certain seasons (especially the dry season) when shrimp are more difficult to find. This is a standardized product.

A rice culture product development model for community culture in the Isan region

From the results regarding the current state and problems with transformed rice products and rice culture in the three provinces, the research team has designed a rice culture product development model for community culture in the Isan region. It is important for local producers to use their own raw materials and ingredients. A large number of problems experienced by companies in the three provinces stemmed from sourcing materials from outside the community. If local community members are encouraged to produce ingredients, costs will be lowered, producers will have greater control over the quality of their product and there will be fewer problems concerning transportation and late deliveries. Modern machinery
should be used in the production process to ensure sizes and quantities are standardized and to speed up the production process. This is particularly important for non-standardized products such as Kanom Jeen. The most successful products were those with attractive and unique packaging. Products such as the Mee Ban Pet with the Bodhi leaf logo were easily recognizable and acceptable as a gift, thus appealing to a larger market than products produced for consumption alone. Local transformed rice product companies should develop their brand identity to increase custom and strengthen their place in the market. Market research and evaluation should also be undertaken regularly to identify consumer preferences and increase the variety of individual products, such as by creating colored rice noodles or snacks using different nuts.

Discussion

A rice culture that involves the transformation of rice products into other consumer goods has existed in Thailand for thousands of years [5]. In early times, rice was used as a construction material and in the era of the Ayutthaya Kingdom the grain became a staple food of the Thai people [6]. The knowledge of transformed rice products in society has been passed down through the generations from ancestors to descendants and includes information concerning products such as Kanom Jeen, Kanom Lodchong, Mee and Krayasatorn. These products are important features of the local economy and with intelligent product development could be exported to the world stage and strengthen the Thai position in the international rice exporter community [7]. This history and potential is a good example of the structural functional theory of Malinowski [8]. Malinowski believed that culture is adapted to meet the needs of societies. The use of rice in construction and then the development of its relationship as a culinary staple are evidence of the transformation of the cultural role of rice. With the Thai rice export market now suffering, development and export of transformed rice products and their associated culture could be the next shift in the social landscape.

The problems with the production of transformed rice products begin with the ingredients. Due to the lack of available, good-quality rice in the local area, producers are forced to buy rice from other provinces. This adds to the production costs because of the reliance on transport and the profit margin demanded by the rice farmers. Many of the products researched had a well-developed packaging system but some producers had not paid enough attention to the packaging of their products. This is an important stage of the production process because packaging plays an important role in creating a good consumer impression of the product [9]. Each product has its own specialist techniques, which are important aspects of production that should not be sacrificed for speed or cost [10]. The final critical aspect of the production of some products is the lack of standardization. In light of this, it is important for local government institutions to intervene and conduct a project to introduce production standards for certain local goods, namely Lodchong and Kanom Jeen. This will ensure that quality markers are being met and it will also help protect traditional knowledge used in the production process [11]. These were also the conclusions of Tongman & Wacheerasut [12] in their study of Kanom Jeen production in Chachengsao province, Thailand.

It is important to continually develop these transformed rice products and their associated culture to keep pace with modern society and consumer trends [13]. Some changes that would significantly improve the production process include the appropriate use of modern technology to standardize and accelerate the production process, the growth and production of raw materials within the local area and ongoing packaging and product development. These measures should all be taken within the regulations outlined
by a standardizing body. However, it is paramount that the traditional knowledge used in product creation is not altered or skewed to accommodate new developments [14].

References