

HERITAGE VALUE, SUSTAINABILITY, AND COMMERCIALISATION OF SMOKED CLAM (*ETAK SALAI*) IN KELANTAN, MALAYSIA

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ABSTRACT

Smoked clam (etak salai) is a popular traditional food and part of the intangible cultural heritage (ICH) of Kelantan state. The main objective of this study is to seek a path for its safeguarding. For this purpose, the sustainability of etak salai will be examined from economic and ecological viewpoints. Some Kelantanese fishing households inherit knowledge with regard to the harvesting and processing of etak (clams), and run micro-enterprises as vendors. Increasing the profitability of these micro-enterprises is a crucial factor for safeguarding etak salai. Through quantitative analysis based on Hayashi's quantification theory type 2, this study determines that the profitability of these micro-enterprises chiefly depends on the initial investment amount. It also finds that inheritance of micro-enterprises without enhancement of profitability results in the reproduction of low-income households. Ecological factors also determine the sustainability of etak salai. The study reveals that deterioration of the local ecosystem has triggered continuous transition of the mode of production of etak salai. Commercial production of etak salai began only after the majority of community members moved away from the rivers. After severe degradation of local rivers, harvesters expanded the geographic scope of their activity to other states of Peninsular Malaysia. Currently, Thailand and Cambodia account for a majority of the supplies. These transformations have decreased the number of households that are able to transmit knowledge regarding the harvesting and processing of etak. This is a grave concern in terms

of safeguarding ICH. Thus, the study concludes that injecting capital to vendors and restoring the local ecosystem could be useful measures for safeguarding ICH.

Keywords: intangible cultural heritage, microenterprise, Kelantan, sustainability, tourism

INTRODUCTION

How can we safeguard our intangible cultural heritage (ICH)? This is a difficult question, particularly in the context of the rapid disappearance of Malaysian ICH. This study examines the sustainability of Kelantanese traditional food through economic and environmental perspectives. The theoretical framework of the study is based primarily on the bio-cultural system proposed by Galla (2008). *Etak salai* is a cuisine unique to Kelantan state. The *etak* (*Corbicula fluminea*) is a small freshwater clam that varies in size from 1.5 cm to 3.8 cm and inhabits sandy riverbeds (Aweng and Ahmad 2018, 7). In other parts of Peninsular Malaysia, it is also known as the *kijang* or *remis*. Biologically speaking, the species is not endemic to Kelantan; it is found across Asia, including in Malaysia, Thailand, China, the Philippines, Taiwan, Korea and Japan (Aweng and Ahmad 2018, 13). However, consumption is limited to a relatively small number of places, and in Peninsular Malaysia it is almost exclusively Kelantanese people who consume *etak* (approximately 200 tons in 2006) (Aweng and Ahmad 2018, 75). In Thailand's southern-most region, despite its geographical proximity to Kelantan, *etak salai* is almost inactive in terms of production and consumption.¹ As of June 2018, only one family in a village in Yala and one family in a village in Pattani processed and sold the clam. Such minimal engagement is pale in comparison to Kelantan where approximately 300 households were involved in the clam business in the same year.² The clams are marinated with herbs, ginger, garlic and other ingredients, and are then smoked. The smoking process is referred to as *menyalai*, and the processed shells are called *etak salai*. The processed clams are then sold at tiny stalls at roadsides or in markets. They are almost unavailable in supermarkets and shopping malls. Some clam vendors are members of the harvesters' families.

Processing and selling *etak salai* in Kelantan is a form of micro-business among local households that is not yet dominated by big capital from outside the state. According to Aweng and Ahmad (2018, 74), businesses that deal with clams are inherited by Kelantanese fishermen from particular households. *Etak salai* is also an essential part of Kelantanese cuisine, regarded as an indispensable garnish for *nasi kerabu* (blue herbal rice). The popularity of this traditional food in Kelantan prompted a call for the inclusion of *etak salai* as a food heritage on the National

Heritage List.³ The proposal for registration was submitted to the National Heritage Department in April 2019 (Siti Fatimah 2019).

This study examines the sustainability of *etak salai* as a form of food heritage of Kelantan. From an economic perspective, ICH is likely to decline or become extinct unless its bearers are economically rewarded. Some types of ICH, such as traditional cuisine and crafts, are linked with the small businesses of local inhabitants. From an environmental perspective, many ICHs are deeply rooted in local ecosystems. Handicrafts and local cuisine are inevitably affected by inadequate supplies of raw materials. It is therefore important to ask whether *etak salai* benefits the households of its bearers sufficiently, and whether the supply of clams is adequate.

The significance of this study in the wider context of Malaysian studies is as follows. In Malaysia, heritage, tourism and economy are inseparable (Olalere 2019). Heritage and tourism have been placed under the jurisdiction of the Ministry of Tourism, Arts, and Culture. The Ministry's mandate is:

To propel competitive and sustainable tourism and culture sectors towards the socio-economic development of the country ... To strengthen the tourism and culture sectors towards empowering the nation's economy [and] to promote Malaysia's uniqueness in arts, culture and heritage as the main catalyst for the growth in tourism and culture sectors. (Ministry of Tourism, Arts and Culture 2019)

However, few empirical studies (e.g., Syakir et al. 2015; Said, Nur Syafiqah and Zarina 2017) have been conducted on the economic influence of heritage in Malaysia. Our study attempts to fill this vacuum by examining the profitability of the traditional food of Kelantan in an empirical fashion. Kelantan, the northeast of the country, is known for its economic backwardness but also for its rich cultural heritage. Therefore, cultural tourism has been encouraged there as a powerful force in boosting the local economy (Pusat Pelancongan Negeri Kelantan 2019). The state tourism board recently adopted a new strategy to promote traditional foods as the core attraction for tourists (Pusat Pelancongan Negeri Kelantan 2019); nevertheless, there has been little empirical analysis of this form of food heritage to date, and our study seeks to lay the foundations for future studies.

In addition, we contribute to theoretical debates on ICH safeguarding. The question of how to channel ICH safeguarding to sustainable development has drawn attention from both academics and international institutions (Alivizatou 2008; Hoekstra 2010; Vlassis 2015). Galla (2008) noted that "interplay" among

cultural heritage, communities and local ecosystems is key to the integration of ICH safeguarding into sustainable development. Although we support Galla's holistic vision, we feel that his key term – interplay – remains ambiguous. By depicting how the deterioration of the local ecosystem has transformed the *etak* industry, we demonstrate how this interplay can occur.

LITERATURE REVIEW

ICH Safeguarding

The UNESCO 2003 Convention for Safeguarding of Intangible Cultural Heritage (hereafter, the 2003 Convention) entailed a paradigm shift in the field of heritage studies. Article 2 of the 2003 Convention asserts:

This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (UNESCO 2010, 5)

This clearly indicates that ICH is characterised by continuous transformation. In consonance with this understanding, UNESCO removed authenticity from the criteria for registration on its list of representative ICH (Aikawa-Faure 2009, 17–19).

Further, the 2003 Convention consistently uses the term “safeguarding” of ICH, rather than “protection” or “preservation.” Safeguarding implies a far broader approach compared to alternative terms, not only in terms of protecting ICH from direct threats but also with respect to necessitating positive actions to contribute to its continuity (Blake 2009, 51). Aikawa-Faure (2009, 35–40) explained this by stating that ICH should refer not to a product but to a process. The product is merely “the tip of the iceberg” represented by the complexity and richness of the intellectual, political and cultural processes in which the heritage is rooted. The safeguarding of ICH thus necessarily entails protection of the social and environmental context in which it exists. The Batana Eco-museum project in Croatia exemplifies this broader approach (Aydemir 2016, 423–428):

The museum furnished a small shipyard to resume traditional boatbuilding; although the new boats are primarily used as tourist attractions, the opportunity to build new boats entailed knowledge transmission from existing artisans to younger generation.

Moreover, the revival of traditional boat building reinvigorated various ICH inherited within the fishing community, such as romantic songs, annual boat races and traditional cuisine. This project is on UNESCO's registered list of good practices for safeguarding.

Taking this new paradigm into consideration, we do not simply examine the continuity of production. Rather, our core interest is in whether community members can transfer their skills and knowledge to the next generation. The sustainability of interactions between the community and the local ecosystem is another key concern. The remainder of this article discusses the safeguarding of *etak salai* through these vantage points.

Food Heritage

Since Malaysia signed the 2003 Convention, food heritage has emerged as a frontier of cultural study in Malaysia. Reflecting the country's multiracial society, previous studies have considered Malaysian food heritage from the perspective of ethnic and national identity. For instance, Perry (2017) investigated the transformative role of food as an agent of both unity and division in multicultural and transcultural Malaysia by means of an analysis of contemporary literary works. Adilah et al. (2016) found that a majority of their informants defined food heritage in terms of "food passed down from one generation to another," "food related to the cultural background," "original ingredients with original recipes," "[food] associated with celebration" and "authentic cooking methods." Their study was a first attempt to investigate Malaysian traditional foods mainly from the perspective of consumers. Building on their work, we now shed light on the suppliers of traditional food.

In addition to this focus on identity-seeking practices, the growth of gastronomy tourism has encouraged the study of food heritage. In connection with the rapid growth of this sector, Nistoreanu, Nicodim and Diaconescu (2018, 712) noted that "people's desire for novelty has led to greater receptivity and openness to tasting and information about other traditional cuisine." Thomé-Ortiz (2018, 106) argued that traditional food is produced in rural spaces, which is associated with an idyllic representation of the past, where it is possible to compensate for their lost identity by means of journeys as a tourist. His remark implies that the dramatic expansion of the urban middle class in South-east Asia will continue to grow the market for gastronomy tourism. The Malaysian government has shown a keen interest in this rapidly growing market, with the Malaysian Tourism Promotion Board developing a promotion plan for traditional food and initiating a large-scale campaign for promoting Malaysian food as a tourist attraction. In 2009, the Department of Heritage Malaysia released its list of 100 Malaysian Heritage Foods; in 2013, the

list was expanded to include 151 foods. As Hanafi (2018a; 2018b) argued, food heritage has come to be regarded as an element of the country's soft power. Despite the potential of Malaysian food heritage, however, academic interest is still at the nascent stage, and our study is among the first attempts to fill this vacuum.

Drawing from Hobsbawm and Ranger (2012), recent literature has expressed scepticism about notions of "original" and "authentic." Matta (2016, 339) took the view that heritage, including traditional food heritage, is "a historical, cultural and social construction that combines conservation and innovation, stability and dynamism, reproduction and creation." From this vantage point, he scrutinised how stakeholders have tried to reconfigure "Peruvian food heritage," observing "a deep disposition of compliance with international and urban market standards," and concluding that "the only cultural dimensions they identified in local foodways are incompatible with their concept of cultural heritage and are subsequently seen as challenges to overcome" (Matta 2016, 340–347). Similarly, Guan, Gao and Zhang (2019) described how "food heritagisation" took place in Yuanjia village, China. They found that the village had reinvented modes of producing food materials, cooking methods and decoration of stalls to align with the "idealised rurality" of the urban middle class and to satisfy that class's "gastronostalgia" (Guan, Gao and Zhang 2019, 3–11). Building on these literatures, this study adopts the position that "traditional food," or "food heritage," is in flux. The remainder of the article therefore illustrates the dynamism of *etak salai*, rather than documenting it statically or admiring it uncritically.

Micro-entrepreneurs

As *etak salai* vending is one of the most popular micro-businesses among Kelantanese people, its profitability is one of the factors that determines the survival of their food heritage.

There is an agreement in the literature that working capital plays a crucial role in the performance of micro-enterprises. Claessens and Tzioumis (2006) argued that lack of access to working capital is a critical instrument in the generation of persistent poverty traps. The World Bank (2008) noted that access to working capital and training programmes for micro-entrepreneurs are crucial factors in sound economic development. According to Wan Nurulasiah, Abdullah and Mohamed (2018a, 4), Amanah Ikhtiar Malaysia's micro-finance programme has doubled the average household income of the borrowers.

Given Kelantan's continued economic backwardness, micro-enterprises in the state have drawn significant attention as a vehicle for increasing the financial means of

lower-income groups. Noor Raihani et al. (2018) demonstrated that human capital development had a positive influence on the performance of entrepreneurs; the authors found that “human capital,” including industrial experience and general education, enabled entrepreneurs to achieve success by making them more capable of exploring and exploiting entrepreneurial opportunities, and by facilitating their accumulation of new knowledge and skills. A multiple regression model developed by Wan Nurulashah, Abdullah and Mohamed (2018b, 10–12) showed that access to micro-finance schemes and training programmes partially accounted for improved performance of micro-enterprises. Although these findings provide a solid baseline for this study, analysis of *etak salai* seems to require additional attention to legacy factors. For example, it is important to establish whether and to what extent inherited recipes and know-how contribute to vendor profitability. We address this question by incorporating these factors into our quantitative model.

ICH and Local Ecosystems

ICH is deeply embedded in local ecosystems. For instance, Hoekstra (2010, 64–67) noted that the pigments, plasters and varnishes employed in making frescoes in the Alamos region of Mexico represent indigenous knowledge of the local ecosystem inherited from the Mayan and Aztec periods. Hoekstra (2010, 68) therefore concluded that “intangible heritage could be seen as the key intermediary between nature and culture that unites a knowledge of natural process with the production of artefact.” Silva et al. (2019, 321–323) found that performers at Cavalo Marinho, a theatre for popular song and dance in the northeast of Brazil, recognised a total of 95 plant species as resources for musical instruments and costumes for traditional performance. They warned about the effects of forest fragmentation, noting that only 36 of these species were in active use because of diminishing access to forest resources (Silva et al. 2019, 327). A drawback of their study is its exclusive focus on the influence of the deterioration of the local ecosystem on ICH. To address this shortcoming, this study takes into account how a local ecosystem and ICH influence each other.

The theoretical framework of this study relies on the bio-cultural system presented by Galla (2008). He argued for the necessity of adopting a holistic paradigm that encompasses heritage, community and environment. He also emphasised that human development is a process that occurs not only locally but also within a total natural and cultural environment; thus, we should envisage complex interplay between the natural and cultural environments (Galla 2008, 13–16). Galla’s approach was adopted as the keynote of the Hyderabad workshop of the International Committee of Museums, which envisions channelling heritage management into sustainable development. However, a drawback of his theory is its tendency to project an ideal

equilibrium among the three elements. To address this shortcoming, this study takes into account certain imbalances in the course of these elements' interaction.

METHODOLOGY

The authors use both quantitative and qualitative methods in this study. The quantitative data were extracted from a baseline survey conducted by the *etak salai* research team of Universiti Malaysia Kelantan (UMK). The second author of this article participated in questionnaire building and survey design. Reflecting the wide-ranging expertise of the research team, the questionnaire contained more than 50 questions distributed across two parts: categorical questions and Likert items. The former was used to ask about vendors' personal attributes and the present status of their business, and the latter to derive insights into vendors' subjective perceptions regarding their business. The quantitative data used for the study were drawn exclusively from responses to the categorical questions.⁴ The team circulated questionnaires to households running *etak salai* businesses in Kelantan. We obtained 100 completed responses over the whole Kelantan area, which corresponds to approximately one-third of the active vendors in the state.⁵ However, it should be noted that circulation of the survey did not rigidly follow the procedure for random sampling, since, as *etak salai* vendors do not belong to any organisation, there is no reliable sampling ledger.

Table 1: List of in-depth interviews

Informant	Gender	Profession	Venue	Date
Informant 1	Male	Vendor/harvester	Bachok	05/02/2018
Informant 2	Couple	Vendor/harvester	Tumpat	19/02/2018
Informant 3	Female	Vendor	Pasir Mas	13/03/2019
Informant 4	Female	Vendor	Tanah Merah	13/03/2019
Informant 5	Female	Vendor	Pasir Mas	14/03/2019
Informant 6	Male	Vendor	Pasir Puteh	21/03/2019
Informant 7	Male	Vendor	Tanah Merah	21/03/2019
Informant 8	Male	Civil engineer	Bachok	09/06/2019
Informant 9	Male	Biologist	Jeli Online	11/06/2019 29/03/2021
Informant 10	Male	Middleman	Tumpat	09/04/2021
Informant 11	Male	Museum staff	Kota Bharu	11/04/2021

The baseline survey failed to elicit some information crucial for heritage studies, such as transmission of knowledge. Further, we considered that a one-shot survey would be incompatible with a study on ICH because ICH is characterised by continuous transformation. Therefore, this study utilises a qualitative method of in-depth interviews with the vendors, a biologist, a civil engineer, a middleman of the clam and an educational staff of the state museum. The data for qualitative analysis were drawn mainly from records of the interviews as shown in Table 1. As the interviews were not intended to generate analysis based on statistical inference, we neither covered a large number of informants nor chose them at random. However, we adopted theoretical sampling (Straus 1987; Flick 2018) to increase the variation of attributes among the relatively small number of informants. Most of the interviews were conducted between June 2018 and January 2019 with further additional interviews in March and April 2021. They focused initially on how the vendors transmit their know-how from one generation to the next, how their businesses have changed, and how they envision developing their businesses in future. The later stages of the interviews focused on the influence of ecological deterioration on their businesses, as we had learned from some informants during the initial stage about the critical impact of the deterioration of the river ecosystem. The additional interviews in 2021 focused on the Southern Thailand's *etak salai* business engagement. We disclosed the purpose of our interviews fully and requested consent from the informants, which was obtained. Another source of qualitative data was observation. The authors attended an *etak salai* carnival held at UMK Bachok Campus on 18 April 2019, where the panel session involved a variety of stakeholders, such as representatives of the tourism board, a representative of the state government, ecosystem experts, and vendors and harvesters of clams. The findings of this study reflect the active dialogue held during that session.

The Chi-square test and Hayashi's quantification method type 2 were used to analyse the quantitative data. The latter is a method of quantification used to predict qualitative external criterion on the basis of information concerning the qualitative attributes of each subject, and to analyse the influence of each attribute on discrimination of the external criterion (Tanaka 1979).⁶ We chose these methods because all the quantitative data take the form of categorical variables. Since the variables were not continuous, some methods, such as conventional discriminant analysis and logistic regression, were not appropriate for our purposes. To code the qualitative data, we adopted the protocol of the Grounded Theory Approach developed by Strauss (1987). We encoded the transcript manually, as there is no qualitative data analysis software that appropriately accommodates transcripts in the Kelantanese dialect. We regret that it was necessary to translate the original

interviews into English for the purposes of analysis, as this caused certain nuances of expression to be obscured.

ETAK SALAI VENDING AS A MICRO-ENTERPRISE

As mentioned above, *etak salai* is a small local industry in Kelantan that is free from the dominance of big capital. Households that engage in the business are not only bearers of a local heritage but also small entrepreneurs. In this section, the authors scrutinise this twofold role of the *etak* vendors. First, the process of knowledge transmission within households is investigated followed by the examination of the profitability of their businesses, which the sustainability of the industry clearly depends on.

Family Inheritance

Etak salai is deemed to be a form of local ICH of Kelantan. According to the definition in Article 2 of the 2003 Convention, ICH must be “transmitted from generation to generation” (UNESCO 2010, 5). In the case of *etak salai*, this transmission occurs within the household, as *etak salai* is a family business. We anticipated finding that some households enjoy prestige by inheriting business know-how and regular customers from previous generations. We conducted interviews with the vendors with this context in mind.

Although *etak salai* is generally regarded as a traditional means of subsistence, our interviews clarified that the technique of smoking (*menyalai*) has been adopted within the last few decades. According to the informants, a variety of methods were common before vendors adopted smoking for the sake of efficiency.⁷ Nevertheless, many informants stated that the tools and skills for harvesting clams have remained unchanged, at least since their childhoods. *Etak* is a river animal that loves quiet and muddy water. They can be harvested using a net made of iron wire. Harvesting *etak* is known as *mengokok*, and the tool is known as *pengokok*. It was somewhat surprising that the vendors stated that the skills for harvesting and processing clams are easily acquired; they claimed to have learned these skills as children while helping their parents. One vendor described the business as the easiest way to “earn her bread” (*sumber rezeki yang paling mudah*) because it does not require any complicated skills.⁸

The vendors emphasised that family recipes were an asset to their businesses. This does not necessarily mean that they refrained from experimenting with new flavours. Only half claimed to be following an inherited recipe faithfully, whereas

the rest admitted that they introduced new flavours to attract customers. For instance, a female vendor in her 50's made her product appealing to children by using artificial sweeteners.⁹ Another vendor stated proudly that he had adopted hot spicy flavours for the first time and that this had boosted his business.¹⁰

An informant also mentioned that she relied greatly on steady demand from regular customers. Thanks to those customers, she was able to make a living from an inherited business, even if dramatic growth could not be expected.¹¹

So far, we have focused on what existing vendors inherited from previous generations. The core finding is the fluid character of the *etak* industry. In terms of cooking techniques, commercial production of *etak salai* is a relatively recent phenomenon. Family recipes are less respected than one might imagine. From the heritage perspective, this characteristic of *etak salai* is controversial and raises questions as to which core elements are to be safeguarded. Having raised this issue, we now evaluate the profitability of the *etak* business.

Profitability

The sustainability of *etak salai* depends substantially on its profitability. In addition, profitability is of central importance in gauging whether the local economy can be boosted by promoting its heritage. Therefore, this subsection examines the profitability of *etak salai* as a small business and investigates which factors contribute to making vendors profitable. As mentioned earlier, the main source here is a survey conducted by the UMK's *etak salai* research team in 2016.

This section describes the distribution of daily sales and profits among existing vendors. The daily profit of a business is lower than its daily sales, because the vendor must purchase raw clams from harvesters. As shown in Table 2, one-quarter of the vendors who responded to the survey made sales of over RM200 per day, while 63% made sales of less than RM100 per day. The daily profits of the vendors were even smaller. Only 15% of the vendors made a daily profit greater than RM200, and three-quarters made a daily profit less than RM100. All the data were compiled by the authors from the 2016 baseline survey.

Table 2: Daily sales and profits of clam vendors in Kelantan

	Daily sales (% of vendors)	Daily profit (% of vendors)
Less than RM100	63	74
RM100–RM200	13	11
More than RM200	24	15
Total	100	100

Table 3: Daily profits of clam vendors by amount of initial investment

Daily profit	Initial investment			Total
	Less than RM500	RM 500– RM1,500	More than RM1,500	
Less than RM100	62	1	0	63
RM100–RM200	12	1	0	13
More than RM200	10	7	7	24
Total	84	9	7	100

Aweng and Ahmad (2018, 74–77) described clam vending as a lucrative business; however, the authors’ data cast doubt on this claim. A simple explanation for the discrepancy is that the literature has so far evaluated these businesses in terms of sales rather than in terms of profits. The authors therefore attempted to identify the factors contributing to profit. The most significant factor was initial investment. The survey revealed that a majority of the informants started their businesses with a very small initial investment. Of 100 vendors, 84 (the “low investment group”) invested less than RM500, while only seven vendors invested over RM1,500 (the “high investment group”). Table 3 makes it clear that the low investment group earned less than the high investment group. Chi-square analysis showed a statistically significant difference between the two groups at the 1% level ($\chi^2 = 52.85, p < 0.001$).

Using the same statistical method, this study went on to examine the influence on profits of certain other factors: vendor’s age, vendor’s level of education, whether the vendor had inherited the business, whether the vendor had adopted new recipes, and whether the vendor adhered to a traditional recipe. Table 4 summarises the results. Among these categorical factors, only age had a significant influence on daily profits at the 5% level. Older vendors tended to have higher profits.

Table 4: Influences of categorical factors on daily profits of clam vendors

	χ^2	<i>p</i> -value
Age	13.19	0.04*
Education level	7.98	0.24
Business inheritance	3.48	0.18
New recipe	3.35	0.19
Traditional recipe	0.28	0.87

Note: * significant at 5%.

This study used Hayashi's quantification method type 2 to determine the relative contributions of each categorical factor to profits. Table 5 shows which items and categories were applied in the analysis.

Table 5: Items and categories for Hayashi's quantification method type 2

Item	Category	Number of vendors	Daily profit		
			Above RM200	RM100–RM200	Below RM100
Inheritance	Inherited	59	10	9	40
	Not inherited	40	5	2	33
Initial investment	Less than RM500	83	4	10	69
	More than RM1,500	7	7	0	0
	RM500–RM1,500	9	4	1	4
Age (years old)	Below 20	7	0	0	7
	21–29	14	3	4	7
	30–39	27	4	1	22
	40 and above	51	8	6	37
Education level	Not educated	8	2	1	5
	Elementary	25	4	0	21
	Lower secondary	27	3	5	19
	Secondary	29	4	3	22
	Diploma	10	2	2	6
Traditional recipe	Adheres	35	6	3	26
	Does not adhere	64	9	8	47
New recipe	Adopted	10	3	2	5
	Not adopted	89	12	9	68

Table 6 shows the results of the analysis. The approximate coefficient ratio of the model was $\eta = 0.6$. Therefore, the precision of the analysis satisfies the requirements of statistical significance. In descending order, the item ranges were as follows: initial investment, education level, age, adoption of new recipes, adherence to a traditional recipe and inheritance of the business, with contributions to profitability of 0.62, 0.14, 0.1, 0.7, 0.6, and less than 0.01, respectively. This means that the level of the initial investment accounted for approximately 62% of the profitability of the vendor. The contribution of a traditional recipe was just 6%, and the impact of inheritance was negligible. The partial correlation coefficient also indicates that initial investment determined profitability much more strongly than any other factor. The category scores suggest that a traditional recipe may somehow contribute to profitability, although its level of influence was slightly weaker than that of the adoption of new recipes.

Table 6: Results of Hayashi’s quantification method type 2 on profitability of clam vendors

Item	Category	Category score	Range	Partial correlation coefficient
Inheritance	Inherited	0.00	< 0.01	< 0.01
	Not inherited	0.00		
Initial investment	Less than RM500	-0.40	3.62	0.76
	RM500–RM1,500	1.17		
	More than RM1,500	3.22		
Age (years old)	Below 20	-0.52	0.63	0.17
	21–29	-0.06		
	30–39	-0.04		
	40 and above	0.11		
Education level	Not educated	-0.03	0.84	0.25
	Elementary	-0.23		
	Lower secondary	0.06		
	Secondary	-0.07		
	Diploma	0.62		
Traditional recipe	Adhere	0.24	0.38	0.2
	Does not adhere	-0.13		
New recipe	Adopted	0.37	0.41	0.15
	Not adopted	-0.04		

Note: Coefficient ratio: $\eta^2 = 0.5997$

This study's findings prompt the authors to revisit the conventional discourse which claims that cultural heritage can boost the local economy. First, it should be noted that the *etak* industry can induce reproduction of low-income households. From the interviews with vendors, it is learned that some of their children were willing to take over the family business, which is a positive sign for ICH transmission.¹² At the same time, however, the great majority of vendors were making a profit of at most RM100 per day. A simple calculation tells that the monthly income of these vendors does not exceed RM3,000; taking the impact of weather conditions into account, actual monthly income is likely to be significantly lower. Furthermore, an *etak* business often involves several members of a single household, which implies that the household income of these vendors will drop into the B40 (bottom 40% household income group) category. Second, inflated expectations for the heritage effect must be avoided. Although it is clear that recipes and skills are transmitted within households, there is no evidence that these assets substantially boost vendors' businesses.

CHANGES IN THE *ETAK* INDUSTRY AND THE LOCAL ECOSYSTEM

This section considers the interactions between the *etak* industry and the local ecosystem on the basis of observations and semi-structured interviews. The authors show how *etak salai* has been transformed in the space of a few decades via its interactions with the local economy and ecosystem.

From Minor Means of Subsistence to Family Business

The clam harvest used to be a minor source of subsistence that local people enjoyed as a pastime rather than as a business. An informant described the situation as follows:

When I was a child, we could easily get *etak* anywhere. We went on a picnic with the family and we took them. Even small kids could collect *etak*, as the rivers were shallow. We did not buy *etak*. We collected them and cooked them at home.¹³

However, in the course of the economic development of the country, this idyllic situation gradually disappeared. Rivers in Kelantan were embanked with concrete, and river beds were dredged to provide the large quantities of sand and ballast required for construction work. The rivers became deeper, and the water quality deteriorated significantly in tandem with an increase in livestock breeding in the upper stream region. As a result, people became detached from the rivers, and

this led to new lines of business. A relatively small number of households began collecting, processing and selling *etak* commercially. The majority of existing *etak* vendors are the second generation of these households.

Local Ecosystems and Changes in the *Etak* Industry

According to Aweng and Ahmad (2018, 14), until two decades ago there were large numbers of clams in the Kelantan estuary. An area near Sultan Yahaya Bridge, which connects Kota Bharu with Pasir Mas and Wakaf Bharu, was known for its large clam stocks. However, the clams in the estuary have since become extinct because of water pollution and loss of habitat. Aweng (2006) reported the presence of clams in the Ketereh River. However, the population is negligible and, because of the use of pesticides and chemical fertilisers in coastal rice fields that drain into the river, insufficient for commercial harvest.

Aweng and Ahmad (2018, 36–38) also noted the following factors as severely jeopardising the habitat of clams:

1. Changes in river morphology: These changes are a result of digging sand from riverbeds in order to deepen the river or sell the sand. Works to align riverbanks result in similar changes.
2. Fractured riparian habitat: Trees and shrubs have been removed from riverbanks for purposes of agriculture, construction, or logging. As a result, the clam habitat faces erosion, accumulation of dirty sediment, and increases in temperature.
3. Dam construction: The construction of dams has restricted the migration of fish, which are vectors for larvae. It also causes the flow of a river to stagnate, further reducing the fish population. In addition, dams have had a negative effect on the temperature and oxygen concentration of rivers.

Our in-depth interviews with vendors corroborate this information. The informants mentioned explicitly that the clam population had declined sharply since the large-scale dredging of the biggest river in the state.¹⁴ They attributed the decrease in the number of clams to major public works on riverbanks and the intensifying use of pesticides in paddy fields.¹⁵

In addition, uncontrolled harvesting of clams has contributed to deterioration of the stock. Our in-depth interviews with shell collectors and vendors showed that clams have continued to be an open-access resource, even since the harvest became a

business.¹⁶ No laws regulate when or where shells may be collected. Under these conditions, it is no surprise that the resource is exploited.¹⁷ Nevertheless, since the 1980s, when harvesters extended their activities beyond the state border, disputes among them have been rare.

The diminishing supply of clams was the greatest concern for existing vendors. One informant stated that when he started his business as a harvester he could harvest a basket of clams in just two hours; now he cannot harvest that much in an entire day.¹⁸ Another two informants mentioned that they had given up harvesting because they found it unproductive, and were now working exclusively as vendors.¹⁹ The price of raw clams continues to soar, reaching up to 20 times their previous price, according to one informant.²⁰ Another informant told that the price had risen fivefold over the last decade.²¹ These problems affect the prospects of younger members of the vendors' families. One female informant revealed that her children were unwilling to take over her business because they expect the unstable supply of clams to jeopardise the industry in the near future.²²

An Era of Expansion

The shrinking local supply does not entail the decline of the industry. Our informants generally told us that demand for *etak salai* remained high and that harvesters had started travelling to other states in Peninsular Malaysia and Southern Thailand to meet that demand. Nowadays, the great majority of the clams processed and sold in Kelantan come from outside the state. Vendors usually travel to Selangor, Perak, or Pahang, which is a three-day journey from Kota Bharu (Aweng and Ahmad 2018, 20). This development indicates the emergence of a division of labour between clam collectors and vendors.

Initially, harvesters travelled to Pahang. However, imports from Pahang did not last long, as the rivers there became polluted through frequent dumping of toxic substances brought from Singapore.²³ In addition, from 1985 the Pahang State Government made it obligatory for harvesters to obtain permission to collect clams there, and in 2002 they stopped issuing permits (Aweng and Ahmad 2018, 31, 38–39). This policy was intended to protect the *ikan patin* (*Pangasius*), which feeds on clams. In fact, it prompted harvesters to expand the geographic scope of their activities to benefit from relatively lax regulation elsewhere, as other states in Peninsular Malaysia do not monitor harvesting activity at all.

Alongside the supply from these travelling harvesters, imports play an increasingly significant role in the *etak* industry. It was natural for the states in the deep south of Thailand, as immediate neighbours of Kelantan, to become major suppliers of

clams;²⁴ however, the strength of demand in Kelantan has resulted in a deterioration of the resource in Thailand. Recently, significant amounts of clams have been imported from Tonle Sap Lake in Cambodia through deals brokered by middlemen in Thailand.²⁵ Even though the Kelantan *etak* industry still consists of small family businesses, it is clear that the local ecosystem cannot sustain the industry. Pressure on the resource continues to grow, not least because of a movement to build a large factory to process and sell the product in supermarkets and shopping malls throughout Malaysia.²⁶

DISCUSSION

In this section, the case study is embedded in the broader contexts of studies on Malaysia and ICH, with the aim of stimulating heritage studies in Malaysia in general. First, the discussion of two dilemmas facing the *etak* industry. Second, the examination of the heritage value of *etak salai*, and finally, revisiting the theoretical framework of the holistic approach to ICH studies.

Heritagisation of *Etak Salai*

The evidence introduced in previous sections poses a fundamental question: what is the heritage value of *etak salai*? Although *etak salai* is claimed as a traditional Kelantan cuisine, the authors have been unable to trace its history back more than a few decades. Even within the lifetimes of informants, the relationship between local people and clams has transformed in various ways. A minor means of subsistence became a small family business. Clam collection became detached from people, and eventually even from local rivers. *Mengokok* from rivers has significantly decreased, such that the industry now depends heavily on imported clams. Even recipes have been shifting, as traditional recipes do not necessarily attract consumers. Hence, there is no clear essence of *etak salai* that we can appreciate as a heritage.

It is necessary to re-examine what “heritage,” a fuzzy term, really denotes in this context. Without such re-examination, further heritagisation of *etak salai* may just lead to a superficial campaign to instigate “gastronostalgia” in urban dwellers (Thomé-Ortiz 2018; Guan, Gao and Zhang 2019). Furthermore, the near future may bring factories that automate the processing of shells brought from Indochina. This would be an unsuitable method of safeguarding *etak salai* because automated factories may eliminate knowledge transfer among existing vendors and harvesters.

These findings have significant implications for the study of Malaysian ICH in general. Even though Malaysia boasts a great variety of traditional performing arts

and handicrafts, most of these lack reliable records to enable us to trace their origins. There is significant room here for the “invention of tradition” (Hobsbawm and Ranger 2012). ICH is merely used as a signifier to stimulate demand for products. We highlight this in the expectation that future studies of ICH in Malaysia will move beyond mere documentation of present status.

Dilemmas Facing the *Etak* Industry

Kelantan faces a twofold challenge: it needs to overcome its economic backwardness while, at the same time, sustaining its unique culture. Nurturing culture-related industries, such as heritage tourism, is a way of addressing both elements of this challenge. However, these findings show that the *etak* industry has failed to meet expectations and is confronted with two dilemmas.

The first dilemma is that adherence to tradition can reproduce low-income households. We can admire vendors as bearers of a tradition proudly inheriting a business and preserving recipes handed down from previous generations. However, we must also bear in mind the low profitability of the industry. This study indicates that insufficient initial investment significantly undermines vendor profitability – a finding that is in line with previous studies on Kelantanese micro-enterprises (Wan Nurulashiah, Abdullah and Mohamed 2018a; 2018b) and on the poverty trap in general (Claessens and Tzioumis 2006). This implies that injections of working capital through micro-finance may ameliorate the situation, as the World Bank (2008) has suggested.

The lack of a heritage effect is another challenge for vendors. Inherited knowledge has surprisingly little leverage in terms of improving vendors’ incomes. Expanding their market beyond the state border may increase the heritage effect, because the romanticised image of a “genuine Malay heritage” could be an asset for promotion. However, this strategy creates a further dilemma: even on its existing scale, the industry exceeds the capacity of the local ecosystem. Further increases in demand could trigger irremediable deterioration of the local resource. So far, the industry has mitigated the impact of this deterioration by expanding the geographic scope of harvesting and by importing foreign clams. However, this is not a long-term solution, given the negative influence of the ecosystem in neighbouring countries. Powerful measures must be taken to revive local habitats before seeking further market expansion.

The Eco-cultural System of *Etak Salai*

As discussed earlier, Galla (2008) argued that it is necessary to adopt a holistic paradigm that encompasses heritage, community and environment. In the case under study here, however, there was no harmonious equilibrium in the interplay among these factors. Figure 1 summarises the findings in the form of a bio-cultural system pertaining to *etak salai*. Unfortunately, what it shows is a vicious cycle.

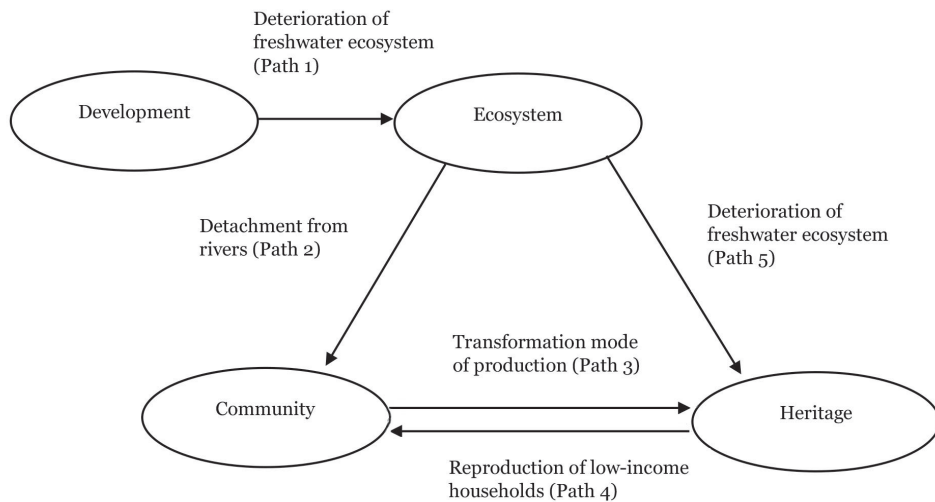


Figure 1: Bio-cultural system pertaining to *etak salai* in Kelantan.

Path 1 represents the influence of economic development on the local ecosystem. The rapid growth of the Malaysian economy has caused relentless deterioration of the freshwater ecosystem. Consequently, people have halted their minor subsistence work and become detached from the river (Path 2); the existing form of the *etak* business has emerged as a result of this detachment (Path 3). For most vendors, being a guardian of a traditional cuisine entails being a low-income household (Path 4). Even if they do not intend to relinquish their inherited business in the short term, the situation is undesirable. Nevertheless, *etak salai* continues to be in demand among Kelantanese people. To meet this demand, harvesters are exploiting clams in a range of locations, and imported clams play an increasingly important role in the industry. The negative influence on freshwater ecosystems is thus extending its geographical scope (Path 5). Unlike the cases reported in the literature (Silva et al. 2019; Hoekstra 2010), in this case the ICH is not benign. The *etak* industry has incorporated a division of labour among vendors, harvesters and

dealers, reflecting the transformation of the supply chain (Path 5). Transformations in the mode of production, which have taken place over a number of decades, make it difficult to determine the essence of *etak salai*.

CONCLUSION

This study has examined two aspects of the sustainability of *etak salai*, a form of ICH in Kelantan, Malaysia. The authors have documented its present status, determined a crucial factor in improving the profitability of micro-businesses and analysed the transformation that was triggered by interactions with the local ecosystem. The finding shows that *etak salai* continues to be sustainable as a micro-business; however, injection of working capital is highly recommended to raise the household income of vendors. The *etak salai* is also not environmentally sustainable unless powerful measures are taken to revive the local ecosystem. Taking these findings together, it can conclude that the interplay among heritage, community and ecosystem has failed to bring about any sustainable development as far as *etak salai* in Kelantan is concerned.

The main implications of the study are as follows. First, the authors have clarified how a particular form of food heritage, or ICH, has been transformed. Although the literature has discussed flux in ICH, the great majority of studies in the Malaysian context have merely described the present status of an ICH without paying due attention to its dynamics. This study overcomes this tendency, thereby contributing to and enhancing the body of work on ICH in Malaysia.

Second, the study builds a bridge between heritage study and development study. As various examples of ICH take the form of micro-businesses, profitability is the key to gauging their sustainability. The authors have empirically identified a crucial factor in improving the profitability of a heritage-related micro-enterprise. ICH safeguarding requires more than simple documentation, and this study will encourage further empirical, policy-oriented ICH studies.

Finally, this study challenges the existing idealised view of the bio-cultural system in the hope of stimulating theoretical debate and enhancing the literature on this matter. As Galla (2008) depicted, community, culture and ecosystem are interdependent. This interdependence, however, may trigger a vicious cycle, as this study has shown. Therefore, the authors reiterate the need for a holistic approach that encompasses ICH safeguarding and ecological restoration.

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NOTES

1. Interview with Informant 9 (a male biologist) and informant 10 (a male middleman).
2. Interview with Informant 9.
3. Interview with Informant 11 (a male museum staff).
4. We also conducted preliminary analysis on the Likert items using exploratory factor analysis. However, we could not achieve a mathematically robust result. This was mainly because of the nature of the questionnaire, which was designed as part of a baseline survey covering a wide variety of topics, rather than as a basis for factor analysis.
5. The questionnaire was disseminated manually. Members of the faculty research team handed questionnaires directly to vendors selling *etak salai* at roadsides.
6. For further details on the mathematical procedures used, please refer to Arabie, Hubert and De Soete (1996) and Jiang, Wang and Zhao (2010, 7–9).
7. Interviews with Informant 2 (a couple vendor/harvester), Informant 4 (a female vendor), and Informant 7 (a male vendor).
8. Interview with Informant 4.
9. Ibid.
10. Interview with Informant 6 (a male vendor).
11. Interview with Informant 4.
12. Interviews with Informant 3 (a female vendor), Informant 5 (a female vendor), and Informant 6.
13. Interview with Informant 8 (a male civil engineer).
14. Interviews with Informant 1 (a male vendor/harvester), Informant 2, and Informant 4.
15. Ibid.
16. Interview with Informant 1 and Informant 2.
17. Interviews with Informant 1 and Informant 5.
18. Interview with Informant 1.
19. Interviews with Informant 3 and Informant 7.
20. Interview with Informant 4.
21. Interview with Informant 7.
22. Interview with Informant 4.
23. Interview with Informant 8 and Informant 9.

24. Interview with Informant 1, Informant 2, Informant 3, Informant 5, and Informant 6.
25. Panel discussion at Etak Carnival held at UMK Bachok Campus on 18th April 2019. This point was mentioned by numerous panelists.
26. Ibid.

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