The influence of perceived value and gender on local food consumption intentions in the northeastern cluster of Thailand

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ABSTRACT

Introduction: Local food, which represents a country’s culture, can be gradually forgotten due to various factors. This study investigated the perceived value of local food and the influence of gender on consumer behaviour regarding the intention to eat local food. Methods: A quantitative survey was conducted using random systematic sampling at a fixed periodic interval. A sample of 2,000 consumers from Thailand’s upper northeastern region was chosen. Structural equation modelling was used to assess the relationships between perceived value, attitude towards eating, and intention to eat. Results: The relevant parameters identified the positive influence of perceived value and attitude towards eating behaviour on the intention to eat local food. The factor loading of attitude towards eating behaviour moderated the effect of the perceived value of local food on the intention to eat local food. Females had less perceived value for their intention to eat local food than males did. Conclusion: The perceived value of local food had the greatest positive impact on attitude towards eating behaviour. Moreover, the difference in gender in the eating behaviour of local food showed that females were more likely to control their food consumption than males were. To increase the intention to eat local food, local food vendors should focus on factors that influence attitudes and use food storytelling to increase consumers’ awareness on the benefits of local food.

Keywords: food consumption, gender, intention, local food, perceived value

INTRODUCTION

Local food is the basis of consumption culture for any area. The local cuisine provides a wonderful source of balanced nutrients for the body and reflects the customs and traditions of a nation. However, the younger generation tends to consume less traditional food than the
older generation (Rahmat et al., 2021). The diversity of nationalities residing in communities has resulted in food-created cultures of different nations within the local community. This affects the local way of life, which has been inherited over many generations and is now gradually disappearing. Food consumption behaviours are more diverse in today’s society and people have more choices for consumption. However, there are also weaknesses in the quality of local food. Therefore, standards are accepted in response to the needs of a wide range of consumer groups, such as the quality of ingredients, hygienic production processes, intensive distribution, and targeted customers (Belletti, Casabianca & Marescotti, 2012). In Thailand, well-known Thai food blends have fundamental tastes: sweet, spicy, sour, bitter, and salty (Pongsawatmanit, 2020). However, each region of Thailand has its own special taste. In particular, northeastern cuisine is very famous among Thai people and foreigners, such as somtam, which can be easily bought as street food (Srisongka & Yanasugondha, 2019). The understanding of local food consumption as street food on people’s perceptions and behaviours has been examined (Choe & Kim, 2018). Therefore, we investigated the links between eating behaviour and the influence of perceived value on local food.

Previous research found that different genders have different behaviours with regard to consuming local food (Somnasang & Moreno-Black, 2000; Rakinaung, Jerayingmongkol & Sanguanprasit, 2015). This study examined informational attitudes related to gender on perceived value and attitude towards eating behaviour on the intention to eat local food. One approach to understanding people’s behaviours and intentions can be found in Davis’s model, known as the technology acceptance model (TAM), which explains new ways to assess user demand and define perceived usefulness and perceived use (Davis, 1989). Scholars have examined this relationship using structural equation modelling (SEM). To understand gender differences in local food consumption behaviours, we constructed a model with the parameters of the perceived value of local food (PL), attitude towards eating behaviour (AE), and intention to eat local food (IE) to identify differences in gender with regard to eating behaviour of local food. SEM enables the analysis of latent variables and their relationships, offering the opportunity to analyse the dependencies of psychological constructs.

The PL defines the degree to which a consumer believes that local food benefits from local herbs, vegetables, and natural food ingredients. Consumers are concerned about healthier lifestyles and environmental issues (Petrescu, Vemeir & Petrescu-Mag, 2020). Food quality can involve the appearance of food, such as food decoration, food packaging design, product description, and other factors after purchasing in addition to consuming the food, such as the taste, food hygiene, and feeling of satisfaction. Therefore, perceived value reflects an outcome of usage and illustrates the primary incentive to adopt a new behaviour. Local food has a special taste, so individuals who are unaccustomed to it may be motivated to adopt a new behaviour. PL in new food-related decision-making represents the potential benefits of seeking better, more delicious food. PL involves consumers’ due diligence regarding whether the kind of value set embedded in a particular food matches their individual lifestyle. Perceived value has been described in many studies on food satisfaction, such as through emotional perspectives (Raji & Zainal, 2016; Hasan, 2022), perceived food quality (Hasan, 2022), and portion value (Hasan, 2022). Therefore, the
quality value (QV), emotional value (EV), and portion value (PV) of food are important factors in the perceived value of local food in this research.

An AE is a psychological, evaluative response towards a particular food in positive and/or negative terms based on affective, behavioural, and cognitive information. In this situation, behavioural and cognitive information are the complex terms that encourage new mindsets that transcend the intention of consuming local food. Visitors who perceive high quality and taste are likely to have a positive attitude towards local food at a destination (Choe & Kim, 2018). Consumers generally hold positive attitudes towards safe food, notably in terms of safety, quality, nutrition, and flavour. They are willing to spend more on food that is safe (Liu, Pieniak & Verbeke, 2013). Ingredients, nutritional information, and additives are the most important cues for food safety and nutrition; while packaging, food origin, and production type are the most important cues for food environmental effects. Local food cuisine promotes the preservation of local resources, which contributes to the taste, texture, and smell of the dish, achieved via the use of natural resources. Many plant food items are also used as medicinal ingredients and are part of the local health belief system (Phengphol, 2011). Some ingredients in local food are simple herbs that are easy to find in the area. While the cooking process is convenient and quick, the taste is distinct, and the food is rich in nutrients. Local people use wild food because it is more delicious and tastes better than cultivated food (Somnasang & Moreno-Black, 2000). In this research, we fit local food into functional foods; therefore, the attitude towards eating behaviour is seen as a response to the characteristics of cooking (CC), the eating style of individuals (ES), and the storytelling of food (ST). Functional foods and attitude towards eating behaviour are associated with hedonic eating values (Nystrand & Olsen, 2020). Therefore, cooking behaviour, cooking knowledge, and food security status are related to functional foods (Czup, 2020).

Eating style and lifestyle are associated with a different profile of attitudes and behaviour of consumers that differs between males and females (Wah, 2016). Taste is another important factor; food made with wild ingredients is preferred by villagers because it grows naturally, contains more nutrients, including vitamins and protein, and is lower in fat (Kivela et al., 1999). Based on the theory of planned behaviour (TPB), people’s behaviours and intentions can be described. Therefore, the IE is related to the cognitive dissonance of attitudes towards nutrition, which may be changed by understanding the cooking method (CM) and health benefits with sustainability (SF).

Based on the relevant literature, locals and tourists coexist in the current situation given the resilience of local food in the face of constant change. This research aimed to preserve local food wisdom, while also improving it to make it more modern and acceptable to today’s society. The TAM model is a powerful theoretical framework for studying technology acceptance and usage. The TAM is used in food service industry management by integrating it with social factors that can provide insight for developing food industry strategies (Jun et al., 2021). The influence of parameters that have both direct and indirect effects was investigated, so a SEM was appropriate for our model in which the relationships between PL, IE, and AE were tested for direct and indirect effects on causal relationships. The conceptual framework on the influence of the perceived value of local food and attitude towards eating behaviour on the
intention to eat local food is provided in Figure 1. We defined the parameters: P defines the degree to which a consumer believes that local food benefits from local herbs, vegetables, and natural food ingredients; IE is relevant to the cognitive dissonance of the attitude towards nutrition; AE is a psychological, evaluative response towards a particular food in positive and/or negative terms.

The objective of the study was to study the influence of the perceived value of local food on the intention to eat local food under the effect of gender moderated by attitude towards eating behaviour.

This research could help preserve the benefits of local food consumption in Thailand and promote local dishes internationally, which can help local food vendors create higher incomes and job opportunities for local people. Moreover, the relatively low capital expenditures of local food businesses are attractive for certain types of sellers. This study could also provide information for local food vendors and consumers to be aware of their appropriate roles in association with government authorities, such as food hygiene.

MATERIALS AND METHODS

This study received ethical approval from the Human Research Ethics Committee of Loei Rajabhat University, Thailand. (Reference Number: HE 023/2563). All participants were given information about the study and consent was indicated by voluntarily completing the questionnaire. All data remained anonymous.

Sampling method and sample size

A quantitative survey was conducted at a fixed periodic interval with systematic random sampling of local food consumers by hand at all major markets and food streets in five provinces in the upper northeastern cluster of Thailand. The selected sample comprised 2,000 consumers of local food. The population in 2020 in this region was as follows: 1,567,983, 517,434, 422,041, 513,316, and 638,736 for Udon Thani, Nong Khai, Bueng Kan, Nong Bua Lamphu, and Loei, respectively.

The sample for this research was calculated using the formula of Taro Yamane with a 95% confidence level. The formula used was $n = \frac{N}{1+Ne^2}$, where $n$ is the sample size required and $N$ is the size of the population; $e$ is the allowable error. After calculating the sample size, the number of samples from each province was ascertained to be 400. The respondents for this study were selected using a probability sampling approach. This study was conducted from June 2020 to May 2021.

The first few questions concerned participant demographics to gather information that could be linked to our observation variables. To achieve the goals of the study, a questionnaire on the perceived value of local food, attitude towards eating behaviour, and intention to eat local food was constructed using a five-point Likert scale for each variable. A content validity test using the index of item-objective congruence (IOC) technique found that the IOC values of the questionnaire were 0.50 or higher, which were acceptable given the present criteria. Thirty sets of questionnaires were distributed to test reliability with Cronbach’s alpha coefficient. The reliability of each observation variable was approximately 0.920-0.924, which was greater than 0.70 and accepted as the present criteria (Hair et al., 2010).

Statistical analyses

The statistical software IBM SPSS Amos (IBM Corporation, Armonk, NY, USA) was used for data analysis. Descriptive statistics of categorical variables were presented as frequencies and
percentages, while observation variables were presented as means and standard deviations. Amos software was used for confirmatory factor analysis and SEM. We investigated the parameters according to our research model with the test for multivariate normality on the skewness and kurtosis of each observation variable: sustainable food (SF), CM, storytelling (ST), eating style (ES), characteristics of cooking (CC), EV, QV, and PV. Our parameters showed skewness in the range of -0.695 to -1.142 and kurtosis in the range of -0.344 to 0.837, which agreed with the normality of -3 to +3 skewness (Finney & DiStefano, 2006) and -3 to +3 kurtosis (Westfall & Henning, 2013). The test for multicollinearity and the correlation estimate of pairs of observation variables were calculated and showed that the correlation factors were positive and in the range of -0.370-0.6694 with \( p < 0.01 \). Values less than 0.8 were agreed upon (Hair et al., 2010). The KMO and Bartlett’s tests yielded KMO=0.901 (KMO > 0.5) and Bartlett’s test with \( p < 0.05 \) (Hair et al., 2010). The confirmatory factor analysis (CFA) results provide a reference point to construct validity tests and a better understanding of the measurement results (Hair et al., 2010). Based on the CFA results, we analysed the convergent validity, discriminant validity, and reliability of all the items. All indicators loaded on the proposed constructs were significant \( (p<0.001) \). Composite construct reliability (CR) estimates ranged from 0.850 to 0.933, above the recommended cut-off of 0.70 (Fornell & Larcker, 1981) and were acceptable. The average variance extracted (AVE) had to be greater than the 0.50 cut-off for all proposed constructs (Bagozzi & Yi, 1988); the results from 0.507 to 0.751 satisfied the requirements.

We investigated gender differences by separating the samples into two groups: male and female. We repeated the same model with a different group of interested parties. Our population in each group, males (769) and females (1,231), agreed with the observed variables of the SEM calculation method that required 10-20 times the observed variables (Jackson, 2001). The SEM calculation was conducted on a sample of 769 males. The data demonstrated that the other fit indices also fitted reasonably well \( (p=0.053; \text{CMIN/DF}=1.770; \text{GFI}=0.994; \text{AGFI}=0.980; \text{CFI}=0.997; \text{RMSEA}=0.032) \). All the standardised path coefficients are shown in Figure 3. For males, we found that the perceived value of local food influenced the intention to eat local food by 0.475. We also computed a sample of 1,231 females using the SEM calculation. The SEM indices fitted well \( (p=0.39; \text{CMIN/DF}=1.05; \text{GFI}=0.998; \text{AGFI}=0.992; \text{CFI}=1.000; \text{RMSEA}=0.007) \) and were deemed satisfactory (Figure 3).

**RESULTS**

Descriptive statistics were used to summarise the participants. The demographic profiles of the respondents are summarised in Table 1. The respondents consisted of 61.5% females and 38.5% males, most of whom were 20-39 years old (50.9%). The education level for some were lower than a bachelor’s degree (42.3%), while some held a bachelor’s degree (44.5%). The occupations were dispersed among students (24.5%), personal business (24.0%), private sector (18.9%), and government sector (13.5%). Most of the students were university and adult education students.

SEM was used to assess the relationships between the potential factors presented as moderated parameters. Figure 1 explains our model, illustrating the direction of impact on the standardised path coefficients. The standardised chi-square per degrees of freedom value was 1.179 lower than
the cut-off standard of 3.0 (Hair et al., 2010) and the fit was confirmed to be acceptable. Additionally, the chi-square (9.434) with eight degrees of freedom and the data in the model showed a good fit. Data for the structural model demonstrated that the other fit indices also fitted reasonably well (GFI=0.999; AGFI=0.995; CFI=1.000; RMSEA=0.009) and were deemed satisfactory. All the standardised path coefficients are shown in Figure 2. All influence loadings are shown in Table 2. The perceived value of local food was

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**Table 1.** Demographic characteristics of respondents

<table>
<thead>
<tr>
<th>Categories</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>769</td>
<td>38.5</td>
</tr>
<tr>
<td>Female</td>
<td>1,231</td>
<td>61.5</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 20 years old</td>
<td>262</td>
<td>13.1</td>
</tr>
<tr>
<td>20-39 years old</td>
<td>1,018</td>
<td>50.9</td>
</tr>
<tr>
<td>40-59 years old</td>
<td>559</td>
<td>27.9</td>
</tr>
<tr>
<td>More than 60 years old</td>
<td>161</td>
<td>8.1</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower than bachelor’s degree</td>
<td>846</td>
<td>42.3</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>890</td>
<td>44.5</td>
</tr>
<tr>
<td>Higher than bachelor’s degree</td>
<td>264</td>
<td>13.2</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
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<td></td>
</tr>
<tr>
<td>Student</td>
<td>491</td>
<td>24.5</td>
</tr>
<tr>
<td>Government sector</td>
<td>270</td>
<td>13.5</td>
</tr>
<tr>
<td>Private sector</td>
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<td>18.9</td>
</tr>
<tr>
<td>Personal business</td>
<td>480</td>
<td>24.0</td>
</tr>
<tr>
<td>Housewife</td>
<td>48</td>
<td>2.4</td>
</tr>
<tr>
<td>Farmer</td>
<td>136</td>
<td>6.8</td>
</tr>
<tr>
<td>Other</td>
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<td>9.9</td>
</tr>
<tr>
<td><strong>Province</strong></td>
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<td></td>
</tr>
<tr>
<td>Udon Thani</td>
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<td>20.0</td>
</tr>
<tr>
<td>Nong Khai</td>
<td>400</td>
<td>20.0</td>
</tr>
<tr>
<td>Bueng Kan</td>
<td>400</td>
<td>20.0</td>
</tr>
<tr>
<td>Nong Bua Lam</td>
<td>400</td>
<td>20.0</td>
</tr>
<tr>
<td>Loei</td>
<td>400</td>
<td>20.0</td>
</tr>
</tbody>
</table>

**Figure 1.** Conceptual framework for the research
The influence of perceived value and gender on local food consumption

Table 2. Direct effect, indirect effect, and total effect of the model's parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Perceived value</th>
<th>Attitude towards eating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct effect</td>
<td>Indirect effect</td>
</tr>
<tr>
<td>Attitude towards eating</td>
<td>0.773</td>
<td></td>
</tr>
<tr>
<td>Intention to eat</td>
<td>0.171</td>
<td>0.534</td>
</tr>
<tr>
<td>Perceived value</td>
<td>0.814</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. Structural equation model with loadings

QV = Quality value
EV = Emotion value
PV = Portion value
CC = Characteristics of cooking
ES = Eating style of individuals
ST = Storytelling of food
SF = Sustainable food
CM = Cooking method
shown to have a positive effect on the intention to eat local food. However, the value for gender was 0.171, which was less than that of the other branch of consideration. The perceived value of local food had the highest positive effect on the attitude towards eating behaviour, with a standardised coefficient of 0.733. The factor loading for attitude towards eating behaviour moderated the effect of the perceived value of local food on the intention to eat local food. The effect was equal to 0.534, which was higher than the direct effect of 0.171. For gender consideration, the perceived value of local food influenced the intention to eat local food by 0.023 in females and this was less than the perceived value in males at 0.475.

**DISCUSSION**

Local food is a type of food that benefits health and nutrition. Its relationship with two specific diet-related diseases, obesity and diabetes, shows positive impacts on health and nutrition (Ferrer et al., 2011). These results imply consumers’ beliefs that local food which benefits from local herbs, numerous vegetables, and natural food are an important determinant of attitudes. The results also suggested that consumers’ attitude towards eating behaviour influences their behaviours for the preservation of local resources and environmentally friendly dining out behaviour for local food. To increase the intention to eat local food, consumers must be motivated and develop an attitude towards eating behaviour that encourages it. Consumers believe that local food contains more ingredients derived from local plants; these items are also used as medicinal plants and are part of the local health belief system (Phengphol, 2011). The key motivators for healthier food choices towards a more socioculturally grounded diet include an understanding of food intake and the perceived benefit of healthy eating. Attitude towards eating behaviour moderates the effect of the perceived value of local food on the intention to eat local food and is an effective factor in stimulating consumer behaviour. According to cognitive dissonance theory, when contradictions between views and behaviours are present or when emotional conflicts emerge, people are more inclined to demonstrate behaviours that correspond to their attitudes or beliefs (Festinger, 1957). The food cognitive dissonance (FCD) framework can be employed to anticipate how food-related attitude change is influenced by dissonance. This approach can drive research that leads to the creation of effective nutrition programmes and/or messaging to encourage healthy eating.

In the context of COVID-19 in Thailand, there were restrictions on tourists going to certain provinces, so no feedback was available in this regard. The positive effects with attitude towards eating reflected the behaviours of local consumers aged 20-39 years old, who represented the new lifestyle of the local population. Food safety and sustainability were the identifiable parameters that confirmed the behaviours of consumers. This emphasised the importance of attitude towards eating behaviour in a structural relationship. Consistent with previous research, it was found that Chinese tourists were encouraged to eat local cuisine because of its sensory appeal (Suntikul, Pratt & Chong, 2020). According to Kuma & Smith (2018), attitude towards local food can be predicted by health consciousness, concern for the environment, and concern for local economy. We found that local food was usually arranged as street food, which involved food that was prepared or cooked in a short time and with sufficient portion to satisfy the appetites of young Thai people. Consumers appreciated the nutritious,
natural, and fresh ingredients, as well as the beautiful decoration, sustainable containers used, and quality value. These factors influenced consumer behaviour and had an impact on perceived value and attitude towards eating behaviour. A positive attitude towards behaviour was also affected by naturally seasoned ingredients, natural herbs with a simple cooking process, sitting on a mat to eat according to the local eating style, and bamboo containers of sticky rice. Thus, local food had a way of telling the story of the local people and their culture, which they learnt and experienced from the older generation, and became their own intellectual knowledge.

Gender is a factor of concern in the TPB. Factors related to the eating behaviours of men and women have been investigated and may have some effect on gender differentiation. Somnasang & Moreno-Black (2000) found that women had greater knowledge than men in terms of recognition, gathering knowledge, preparation and consumption knowledge, and uses of local food. Females were more likely than males to control their food consumption by consuming healthy food. Furthermore, women reportedly had better eating habits/behaviours than men (Rakinaung et al., 2015). Figure 3 shows that the female group’s attitude towards eating behaviour enhanced higher consumption compared to males. Consistent with previous research results, female students appeared to be much more controlled in their eating habits than male students, and males had a proclivity for unrestrained eating behaviours, which could lead to obesity (Khor, Cobiac & Skrzypiec, 2002). Similar to eating an unhealthy diet, this raises the risk of non-communicable diseases. This finding agrees with the low link between perceived value and the intention to eat local food, especially among females, as they are more concerned about food safety and nutritional value than males. Therefore, for some determinants, psychological and emotional factors have a significant impact on the eating behaviours that gender differences manifest (Khor, et al., 2002).

**CONCLUSION**

The perceived value of eating local food differed among men and women, as women prioritised food consumption control more than men. Besides, the intention to consume local food varied among different ages. To activate the intention of local food consumption,
related organisations should mediate a positive attitude towards local food consumption among target groups. In the private sector, local food vendors should focus on factors that influence attitudes towards healthy food and use marketing promotion to increase consumers’ awareness on the benefits of local food. As a result, this increases the chance for Thai local food to be promoted and preserved on a global scale, so bolstering Thailand’s legitimate tourism economy and giving locals more prospects for employment and greater incomes.

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Authors’ contributions
Meesuptong J, principal investigator, conceptualised and designed the study, conducted the study, data analysis and interpretation, prepared the draft of the manuscript and reviewed the manuscript; Meesubthong C, led the data collection in northeastern Thailand, data analysis and interpretation; Udomsamuthirun P, advised on the data analysis and interpretation, and reviewed the manuscript.

Conflict of interest
All authors declare no conflicts of interest.

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