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RESEARCH ARTICLE

# Impact of Food Hygiene on Purchase Intentions and its Mechanism in Bangkok Street Food under the Influence of COVID-19

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**Abstract**

This research examined the impact of the food hygiene perception of street food customers on their purchase intentions and its mechanism driven by their trust and perceived risk under the influence of the COVID-19 pandemic. Cross-sectional data collected from 571 street food customers in Bangkok were computed using partial least squares structural equation modeling (PLS-SEM). The results revealed a significant positive and direct influence of perceived food hygiene on customer purchase intentions ($\beta$=0.211; $p<0.001$). It also drove customer trust ($\beta$=0.726; $p<0.001$) and reduced perceived risk ($\beta$=-0.215; $p<0.001$). Customer trust was found to have a positive impact on purchase intentions ($\beta$=0.366; $p<0.001$), while perceived risk was negatively associated with purchase intentions ($\beta$=-0.264; $p<0.001$). In addition, the results confirmed a negative impact of customer trust on perceived risk ($\beta$=-0.371; $p<0.001$). Therefore, Sobel's test results demonstrated partial positive moderations of customer trust ($t$= 8.211; $p<0.001$) and perceived risk ($t$= 4.066; $p<0.001$) between perceived food hygiene and purchase intentions. Finally, perceived was also found to partially and positively mediate between customer trust and purchase intentions ($t$= 5.289; $p<0.001$). This study provided novel and additional knowledge and evidence in the literature. It can also be applied as a guideline for street food operators and relevant governmental agents to raise the standard of street food sustainably under the influence of the COVID-19 pandemic.

**Keywords:** Perceived hygiene, customer purchase intentions, customer trust, perceived risk, street food

## INTRODUCTION

Influenced by the COVID-19 pandemic, the restaurant business worldwide has struggled for years; restaurants were obligated to close or limit their businesses according to their governments to control and slow down the spreading of COVID-19, and the situation has just recently started to recover [1-4]. However, COVID-19 still affects people's lives, restaurants, and other businesses. One section in the restaurant industry that has been recovering faster than others is street food and limited-service restaurants since it provides low-priced food which can fulfill the needs of most people who are still in the shadow of the recession caused by the pandemic [5,6].

In Thailand, recognized worldwide for spicy and flavorful Thai foods, street food is an important sector that yields millions of people in all classes as consumers and operators [7,8]. It is expected to grow and generate more revenue than before the pandemic [5]. The number of registered street food businesses in Thailand was 111,370 in 2019, which grew 4 % from the year before [9]. In 2021, the street food industry had 180 million Baht in market value and was anticipated to approach 186 million Baht in the later year, despite the impacts of the pandemic, and expected to grow continuously by 3% from 2020 to 2024 [9]. The statistical data indicates that Thailand's street food industry is relatively competitive since it is attractive to new players, with low barriers and start-up costs [3,10,11].

Consequently, street food operators need competitive edges to compete, survive, and grow sustainably. In the big picture, the well-being of the street food industry partially reflects the strength of the local economy [12]. To pursue sustainable development and competitive edges, street food operators and governmental supporting authorities should identify factors sustainably driving customer purchase intentions.

One concern often mentioned and discussed in the street food business is food hygiene, particularly in underdeveloped and developing countries [13,14]. Influenced by the COVID-19 pandemic, people have increasingly become sensitive and actively alert about their health and well-being [3,15]. This study proposed that food hygiene be tested to determine whether it can promote customer purchase intentions in the street food business in Bangkok. Even though there are prior studies on food hygiene in the street food industry [14,16,17], it is still limited, particularly in the context of Thailand's street food and as an antecedent of customer purchase intentions.

This research aims to investigate the roles of perceived food hygiene practices on customer purchase intentions and their mechanisms via customer trust and perceived risk hypothesized on the concept of the social exchange theory. The results should provide new knowledge, additional evidence to the related literature, and a guideline to street food operators and other stakeholders in supporting street food businesses to be more competitive and sustainably promote the local economy.

### Literature Review

This research explores the roles of perceived food hygiene practices on customer purchase intentions and the mediating role of customer trust and perceived risk according to the concept of the social exchange theory.

#### Social exchange theory

The social exchange theory suggests that individuals analyze costs and benefits to determine whether to enter a relationship to maximize their benefit with minimal cost, and the relationship lasts as long as their benefit outweighs their costs in the relationship [18]. This theory assumes that people always seek rewards while avoiding punishment, and it has been applied in diverse fields, particularly the business field, where it is employed to explain the relationship between businesses and their customers [19-21]. The social exchange theory has been applied to several business contexts to explain the relationship between businesses and their customers [22,23]. The theory proposes that consumers do not develop a relationship with businesses based on emotions and feelings but on their analysis determining economic risks and opportunities of engaging with businesses. This study employed this theory to explain the relationship between perceived food hygiene and customer purchase intentions and the mediating roles of customer trust and perceived risk in the street food business since customer purchase intention is a potential indicator of the relationship between businesses and their potential customers.

### Purchase Decision-Making Process

According to Kotler [24], the purchase decision-making process is a six-stage flow of how a customer purchase decision is developed. The stages are problem recognition, information search, alternative evaluation, purchase intention, purchase decision, and post-purchase behavior; each stage

happens in order, as shown in Figure 1. This process has been widely applied in various fields of business study to explain consumers' purchasing decisions and behaviors [25-29]. Ratasuk and Gajesanand [23] applied the purchase decision-making process to describe the repurchase intentions in gas-station chain coffee shops, a growing business in Thailand. The process starts with individuals who realize their needs and problems that need to be solved and fulfilled; then, they will start searching for information from available sources around them to create a list of possible alternatives. All alternatives will be evaluated for the best solution that can fulfill their needs and solve their problems; as a result, a purchase intention is developed, potentially leading to a purchase decision. Finally, after the purchase, customers evaluate whether or how well their needs are fulfilled and whether the decision has solved their problems [30,31]. This study employed the purchase decision-making process to explain the contributions of perceived food hygiene, customer trust, and perceived risk to customer purchase intentions in the street food business.

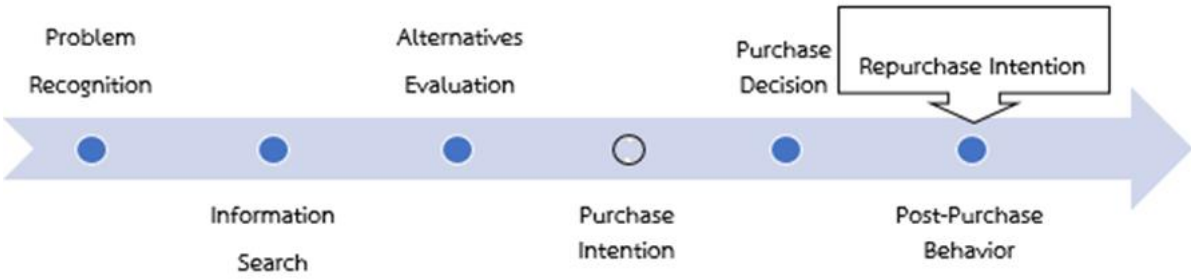


**Figure 1** The purchase decision-making process, retrieved from Ratasuk [22]

**Purchase Intentions**

Purchase intention refers to individuals' willingness to purchase products or services from businesses within a certain period [24,32]. It is a crucial stage in the six-stage purchase decision-making process. It is created by the alternatives evaluation of consumers that analyze and compare the costs and benefits of all available alternatives and select the one that best fits their needs [24,33]. Many studies have used purchase intention in various contexts as a desired business outcome [34,35] and as an antecedent to several other outcomes, for example, customer loyalty, word of mount intention, evangelism, and purchase behavior [36,37]. Therefore, For example, Dash, Kiefer and Paul [38] found that brand identity, brand image, and customer satisfaction positively influence the purchase intentions of real estate first-time home buyers. The study by Dwidienawati, Tjahjana, Abdinagoro and Gandasari [39] revealed that influencer review positively impacts purchase intention.

**Customer Trust**

Trust is defined as individuals' strong belief or expectation that others are reliable and can fulfill their obligations; it plays a crucial role in maintaining relationships in society [2,10,40]. Customer trust refers to customers' positive attitudes towards businesses and their products and services so that they will convey the quality they expect [3,41]. This research refers to customers' trust in particular street food vendors that their foods and services will not harm them, particularly foodborne illness and COVID-19. Customer trust develops over time through customers' positive experiences with businesses' products and services [3,42]. It has determined several marketing and business solutions [43-45]. For example, the study by Iglesias, Markovic, Bagherzadeh and Singh [46] found a significant contribution of customer trust to customer loyalty in online business in Spain. Dehghanpouri, Soltani and Rostamzadeh [47] also revealed that customer trust empirically promotes customer satisfaction and the success of e-CRM of taxpayers of East Azerbaijan province in Iran. Several factors can determine customer trust [3,48]. Ratasuk and Gajesanand [2] found that customer trust can be promoted by food safety and the diminishing of perceived risk in the food delivery business in Bangkok. Ye, Ying, Zhou and Wang [41] also found significant positive influences of social connection, usefulness, and ease of use on customer trust of P2P accommodation users in China. The study by Islam, Islam, Pitafi, Xiaobei, Rehmani, Irfan and Mubarak [49] unveiled that CSR and customer satisfaction promote trust in telecom post-paid users.

**Perceived Risk**

Perceived risk in this context is defined as customers' perception of customers in dealing with an opportunity for loss and an expectation of undesired outcomes in deciding to purchase products and services [50,51]. They also perceive a higher risk when encountering uncertainty or unexpected situations [52,53]. In this study, customers may perceive the risk of foodborne illness and any possible illness related to COVID-19 that their street food consumption may cause. Customers' business intentions and activities depend on the perceived risks in purchasing products and services [50,54,55]. Perceived risk is often placed in customers considering purchasing products and services as a negative mechanism in their decision-making [50,56-58]. Perceived risk has been reported to negatively encourage positive outcomes and positively drive preventive behaviors, such as customer trust, repurchase intentions, attractiveness, and many others [2,58-60]. The study of Ratasuk and Gajesanand [3] unveiled a significant mediating role of perceived risk between perceived food safety and customer trust in the food delivery service industry. Yıldırım, Geçer and Akgül [61] found a significant positive impact of perceived risk on preventive behaviors of COVID-19. According to Pattanapomgthorn, Sutduean and Keohavong [62], perceived risk was reported to diminish customer purchase intention in the GM food industry.

**Perceived Food Hygiene**

Food hygiene is crucial in controlling the risk of transferring pathogens to food, causing contamination that can lead to infectious diseases [63]. Food hygiene refers to practices and conditions that individuals prepare and protect themselves and others from foodborne illnesses caused by microbial contamination to secure their health, lives, and well-being [64-67]. The concept of food hygiene is close to food safety, and challenging to separate them apart that food hygiene is part and the primary determinant of food safety [65,68,69]. Even though the concept of food safety has been found in several studies, food hygiene is still relatively limited and tends to be considered part of food safety [68-70]. In restaurants, food hygiene conditions tend to be hidden in the kitchen that customers cannot see, leaving them to rely on what they can perceive in the front of the house, for example, staff appearance, utensils, and other physical evidence [71]. Food hygiene conditions are an essential indicator of food safety and potential risks from food consumption [72]. It can lead to positive and negative outcomes, such as cognitive and affective images and customer satisfaction [64,73]. In the literature, Läikkö-Roto and Nevas [74] found that perceived food hygiene depends on the attitudes and knowledge of restaurant operators.

**Hypotheses Development**

Hypotheses were developed according to the integration of the social exchange theory and the buying decision-making process as follows:

**Perceived food hygiene, customer trust, perceived risk, and customer purchase intentions**

According to the social exchange theory and the buying decision-making process, customers always seek information and identify available choices before comparing their benefits and costs to develop their purchase intentions [20,28]. As food hygiene practices and conditions are a good indicator of food safety hazards concerning foodborne illness and other health concerns caused by consuming contaminated food, it is expected to play a crucial role in customer decision-making by driving customers' positive attitudes, emotions, and confidence to purchase food from businesses during the COVID-19 pandemic which people are more concerned with their health and well-being than ever [2,3,75,76]. In the street food business, where customers rely mainly on their perception of food display and the practical operational process of street food operators that are exposed to an open environment as information to make purchase decisions, highly perceived hygiene street food stalls should be able to attract more customers by more effectively promoting their purchase intentions. This may be because perceived food hygiene as part of food safety should build customer trust, allowing customers to be confident in purchasing and consuming food from street stalls [3,73,77]. Once customers' trust in a street vendor is created, customers tend to perceive a lower level of risk from purchasing and consuming street food products [2,57]. As a result, customer purchase intentions should be developed after the level of trust and perceived risk on all available street vendors are considered and compared costs and benefits [2,57,78,79]. Therefore, the following hypotheses were proposed.

H1: Perceived food hygiene positively influences purchase intentions

H2: Customer trust positively mediates the relationship between perceived food hygiene and purchase intentions

H3: Perceived risk positively mediates the relationship between perceived food hygiene and purchase intentions

## Methodology

### Sample and data collection procedure

This study examined the influence of perceived hygiene and its mechanism via customer trust and perceived risk in the street food business in Bangkok, Thailand. This research is designed as a quantitative and cross-sectional study employing a survey with self-administered questionnaires for data collection. The research population is street food customers in Bangkok, the capital city of Thailand. The study sample was selected from customers of street food businesses in the Bangkok area who must be over 18 years old and can independently decide to participate in the study independently. Since the population cannot be determined, the researcher decided to set the sample size to be greater than 400, according to Lilliefors [80]. The sample was selected employing stratified random sampling to ensure a sufficient representation of the sample of the research population. [81,82]. The total area of Bangkok was divided into five districts: center, north, south, west, and east. In each district, one hundred and twenty qualified street food customers were initially approached; therefore, six hundred qualified street food customers were initially approached. The survey took around three months to complete starting in early February and finishing in late April 2023. The survey participation was voluntary, and the questionnaire cover letter clearly stated the research objectives, the anonymity of the data collection, and the instruction. The questionnaires have two parts, including participants' characteristics and question sets measuring attitudes toward the latent variables.

### Measures

All latent variables were measured using scales adapted from previous research that have proven valid and reliable. The scales were rated on a five-point Likert scale ranging from 1 or strongly disagree to 5 or strongly agree) and, to accommodate the sample group, all question items were translated and presented in Thai.

Purchase intention was measured using the four-item purchase intention scale adapted from Ghali-Zinoubi and Toukabri [83] and Curvelo, Watanabe and Alfinito [84]. Sample items are "I would buy food from this street stall." and "I intend to continue buying from this store in the future."

Customer trust was measured using the four-item customer trust scale adapted from Li, Teng and Chen [44], for example, "I feel that that street vendor is trustworthy." and "I have confidence in the food products and services of the street food vendor."

Perceived risk was measured using the four-item perceived risk scale adapted from Ratasuk [22] and Joo, Xu, Lee, Lee and Woosnam [85], such as, " Consuming foods from this street vendor increases my anxiety/stress related to foodborne illness and COVID-19 prevention." and "Food products from this street vendor increase the risk of foodborne illness and COVID-19 infection.

Perceived food hygiene was measured using the five-item perceived food hygiene scale adapted from Yu, Seo and Hyun [64]. Sample items are "The surfaces of the work and service area of this street food business is clean" and " The street food operator dress properly, clean, and wear a mask at all times."

### Control variable

Four control variables, including gender, age, income, and education, were included in this research because they have been proven to impact perceived food hygiene to provide alternatives to the latent variables [3].

### Data analysis

This research selected partial least square structural equation modeling (PLS-SEM) to test the hypotheses. According to Hair Jr, Howard and Nitzl [86], PLS-SEM, unlike CB-SEM, does not require normally distributed data, and it has been proven to produce more accurate results with less bias for non-normal distributed data than CB-SEM, while collected survey data is often found non-normal. Besides, Hair Jr, Matthews, Matthews and Sarstedt [87] stated that PLS-SEM is suitable for a complex research model with many relationships among many variables that require simultaneous analysis. This research employed the WarpPLS 8.0 software for ease and accurate analysis results. The following statistics were proceeded and reported in the analysis before the PLS-SEM analysis; descriptive statistics, convergent and discriminant validity, reliability, multicollinearity, common

method bias, normality, and model-fit indices. Lastly, the mediation was tested using the Sobel test [88,89].

The data collection methodology and tool have passed the review process and met all requirements of the Research Ethics Committee (REC) as a reference number of PIM-REC 036/2563 granted.

## Results

Five hundred seventy-one valid questionnaires were returned, accounting for a 95.16% response rate. Table 1 shows that most of the participants were female, 394 (69%). Of all participants, 482 (84.4%) were 20 to 25 years old. 265 (46.4%) earn between 10,000 – 20,000 Baht. Moreover, 348 (60.9%) have undergraduate degrees.

**Table 1** Sample characteristics

| | Characteristics | Descriptive Statistics |
|---|---|---|
| Gender | Male | 177 (31%) |
| | Female | 394 (69%) |
| Age | 20 to 25 years old | 482 (84.4%) |
| | 26 to 30 years old | 53 (9.3%) |
| | 31 to 35 years old | 18 (3.2%) |
| | 36 to 40 years old | 15 (2.6%) |
| | 41to 49 years old | 2 (0.35%) |
| | Older than 50 years old | 1 (0.15%) |
| Income (per month) | Less than 10,000 Baht | 11 (1.8%) |
| | 10,001 to 20,000 Baht | 265 (46.4%) |
| | 20,001 to 30,000 Baht | 235 (41.2%) |
| | 30,001 to 40,000 Baht | 49 (8.6%) |
| | 40,001 to 50,000 Baht | 6 (1.1%) |
| | More than 50,000 Baht | 5 (0.9%) |
| Education | High school | 145 (25.4%) |
| | Associate degree | 65 (11.4%) |
| | Undergraduate degree | 348 (60.9%) |
| | Master degree | 10 (1.8%) |
| | Doctoral degree | 3 (0.5%) |

Before the hypothesis testing, several dimensions of model quality were tested as follows: Starting from convergent validity tested using factor loadings which is ideal when they are no less than 0.7 [90]. The convergent validity of this study is ideal because all factor loadings of all variables were above 0.7, as shown in Table 2.

**Table 2** Indicator loadings and cross-loadings of latent variables

| Variables | Purchase | Trust | Risk | Hygiene |
|---|---|---|---|---|
| Purchase 1 | (0.897) | -0.043 | -0.029 | 0.024 |
| Purchase 2 | (0.903) | 0.025 | -0.019 | -0.019 |
| Purchase 3 | (0.876) | 0.059 | 0.073 | -0.017 |
| Purchase 4 | (0.884) | -0.041 | -0.024 | 0.012 |
| Trust 1 | -0.008 | (0.932) | -0.020 | 0.017 |
| Trust 2 | -0.002 | (0.899) | 0.027 | 0.061 |
| Trust 3 | -0.024 | (0.949) | -0.013 | -0.012 |
| Trust 4 | 0.035 | (0.940) | 0.007 | -0.063 |
| Risk 1 | -0.010 | -0.003 | (0.903) | -0.010 |
| Risk 2 | 0.022 | -0.008 | (0.942) | 0.009 |

| | | | | |
|---|---|---|---|---|
| Risk 3 | 0.018 | 0.002 | (0.927) | 0.006 |
| Risk 4 | -0.030 | 0.008 | (0.937) | -0.006 |
| Hygiene 1 | -0.029 | -0.058 | -0.028 | (0.885) |
| Hygiene 2 | 0.024 | 0.027 | -0.033 | (0.895) |
| Hygiene 3 | 0.009 | -0.082 | -0.018 | (0.897) |
| Hygiene 4 | 0.023 | -0.024 | 0.078 | (0.855) |
| Hygiene 5 | -0.028 | 0.145 | 0.005 | (0.841) |

**Note:** Purchase=purchase intentions, Trust=customer trust, Risk=perceived risk, Hygiene=perceived food hygiene.

Secondly, the discriminant validity was tested by comparing square root values of each variable's average variance extracted (AVE) with other related correlations with other variables [90,91]. As shown in Table 3, All variables' AVEs are higher than their relevant correlations, which means that the discriminant validity of the model is satisfactory. Thirdly, the model's reliability was tested using Cronbach's alpha and composite reliability coefficients, which are suggested at least 0.7 to be acceptable [92]. The coefficients range from 0.735 to 1.000, indicating that the model's reliability was satisfactory, as shown in Table 3. Fourthly, the multicollinearity and common method bias (CMB) were tested using the complete variance inflation factor (VIF) values, which should not be higher than 3.3 to be ideal and 5 to be acceptable [86,93,94]. All full VIF values are lower than 3.3, except physical evidence that is 3.723 which is still less than 5 indicating no sign of a critical multicollinearity and CMB issues.

**Table 3** Correlation among variables and the square root of the average variance extracted

| Variables | Purchase | Trust | Risk | Hygiene | Gen | Age | Income | Edu |
|---|---|---|---|---|---|---|---|---|
| **Purchase** | (0.890) | | | | | | | |
| **Trust** | 0.644** | (0.930) | | | | | | |
| **Risk** | -0.531** | -0.503** | (0.927) | | | | | |
| **Hygiene** | 0.594** | 0.725** | -0.458** | (0.875) | | | | |
| **Gen** | -0.159** | -0.086* | 0.072 | -0.069 | (1.000) | | | |
| **Age** | -0.041 | 0.018 | 0.087* | -0.055 | 0.102* | (1.000) | | |
| **Income** | 0.034 | -0.016 | 0.031 | -0.058 | 0.198** | 0.300** | (1.000) | |
| **Edu** | 0.119** | 0.042 | -0.035 | 0.039 | -0.097* | -0.100* | 0.015 | (1.000) |
| **Cronbach's alpha coefficient** | 0.939 | 0.962 | 0.961 | 0.942 | 1.000 | 1.000 | 1.000 | 1.000 |
| **Composite reliability Coefficient** | 0.913 | 0.948 | 0.946 | 0.923 | 1.000 | 1.000 | 1.000 | 1.000 |
| **Full Collin. VIF** | 2.037 | 2.577 | 1.510 | 2.279 | 1.077 | 1.133 | 1.141 | 1.036 |

**Note** ** and * mean a p-value of <0.01 and ≤0.05, respectively; Purchase=purchase intentions, Trust=customer trust, Risk=perceived risk, Hygiene=perceived food hygiene, Gen=gender, Age=age of the participant, Income=monthly income; and Edu=education level; the square root values of the AVE are presented in parentheses.

The normality test results from the PLS-SEM indicated that, out of the four latent variables, only perceived food hygiene was normally distributed, which means PLS-SEM is appropriate in this study, as shown in Table 4.

**Table 4** Normality Test Results

| | Purchase | Trust | Risk | Hygiene | Gen | Age | Income | Edu |
|---|---|---|---|---|---|---|---|---|
| **Normal-JB** | No | No | No | Yes | No | No | No | No |
| **Normal-RJB** | No | No | No | Yes | No | No | No | No |

**Note:** Purchase=purchase intentions, Trust=customer trust, Risk=perceived risk, Hygiene=perceived food hygiene, Gen=gender, Age=age of the participant, Income= monthly income, and Edu=education level

Finally, overall model quality was tested using the ten model-fit indices computed by PLS-SEM analysis, as shown in Table 5 95. The model-fit indices show that all indices were ideal and acceptable, indicating that the overall model quality is good.

**Table 5:** PLE-SEM model fit indices

| Model fit indices | Coefficient | Result |
|---|---|---|
| Average path coefficient (APC) | 0.239** | Significant |
| Average R-square (ARS) | 0.338** | Significant |
| Average adjusted R-square (AARS) | 0.335** | Significant |
| Average variance inflation factor (AVIF) | 1.569 | Ideal |
| Average full variance inflation factor (AFVIF) | 1.599 | Ideal |
| Tenenhaus GoF index (GoF) | 0.555 | Large |
| Simpson's paradox ratio (SPR) | 1.000 | Ideal |
| R-square contribution ratio (RSCR) | 1.000 | Ideal |
| Statistical suppression ratio (SSR) | 1.000 | Acceptable |
| Nonlinear bivariate causality direction ratio (NLBCDR) | 1.000 | Acceptable |

**Note** ** and * mean a p-value of <0.01 and ≤0.05, respectively.

**Hypothesis Testing Results**

The results of all three hypotheses proposed in this study are reported in Figure 1 and in descriptive form as follows:

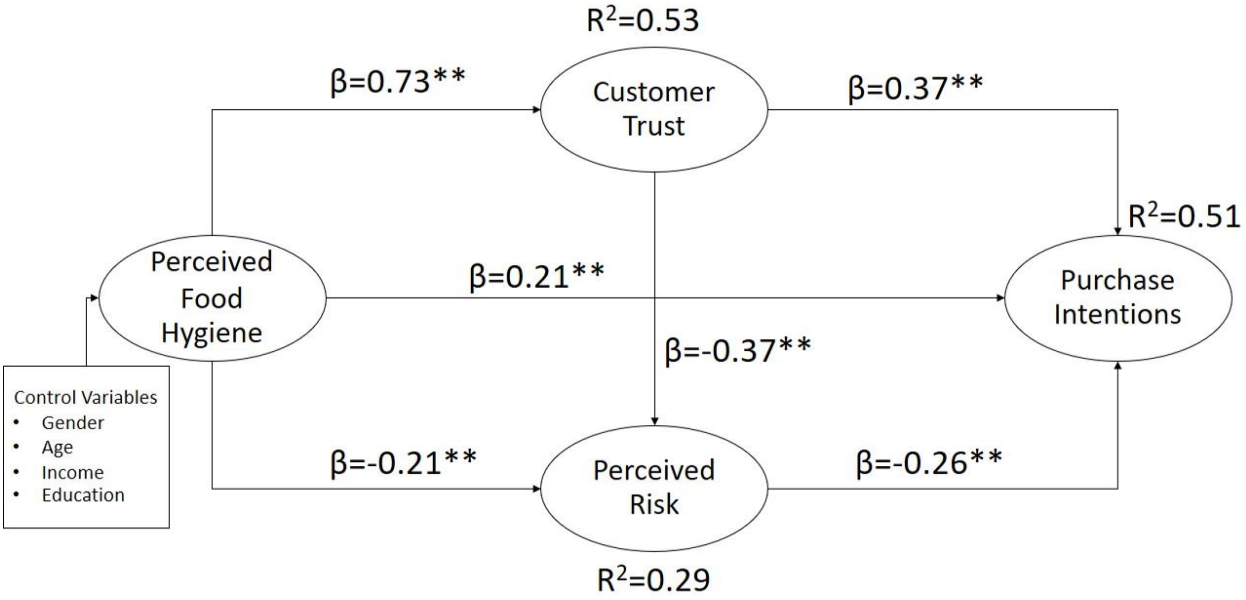


**Figure 1** Structural equation model results

**Note** ** and * mean a p-value of <0.01 and ≤0.05, respectively.

Figure 1 presents the PLS-SEM analysis results as follows:

**Hypothesis 1** Perceived food hygiene positively impacts purchase intentions. The PLS-SEM results demonstrated a significant positive association between the two variables (β=0.211; p<0.001). Hence, hypothesis 1 was supported.

**Hypothesis 2** Customer trust positively mediates the relationship between perceived food hygiene and purchase intentions. The PLS-SEM results showed significant positive influences of perceived food hygiene on customer trust (β=0.726; p<0.001) and customer trust on purchase intentions (β=0.366; p<0.001). Along with the hypothesis 1 result, the Sobel test recommended by Hayes and Preacher [89] revealed a partially positive mediating effect on the relationship between perceived food hygiene and purchase intentions (t=8.211; p<0.001). Thereby, hypothesis 2 was supported.

**Hypothesis 3** Perceived risk positively mediates the relationship between perceived food hygiene and purchase intentions. The results revealed significant adverse impacts of perceived food hygiene on perceived risk (β=-0.215; p<0.001) and perceived risk on purchase intentions (β=-0.264; p<0.001). Regarding hypothesis 1, the Sobel test suggested by Hayes and Preacher [89] indicated a partially positive mediating effect of perceived risk on the significant positive relationship between the two variables (t=4.066; p<0.001). Thereby, hypothesis 3 was supported.

The researcher further investigated the mediating role of perceived risk on the relationship between customer trust and purchase intentions. Since the results indicated significant and adverse effects of customer trust on perceived risk (β=0.211; p<0.001) along with other results, the Sobel test suggested by Hayes and Preacher [89] revealed that perceived risk partially and positively mediated between customer trust and purchase intentions (t=5.289; p<0.001).

Furthermore, the findings also showed that out of the four control variables, including gender, age, income, and education, only gender (β=-0.076; p=0.034) and education (β=0.087; p=0.018) significantly influenced perceived food hygiene.

## Discussion

This research examined the essence of food hygiene in building customer purchase intentions and the mediation of customer trust and perceived risk as its mechanism in the Bangkok street food business. The results indicated that customers who perceive a high level of food hygiene tend to have higher purchase intentions than those who perceive less. This result fulfills the research problem that street food operators need to develop and enhance their competitive edges for sustainable success by knowing what can promote their customer purchase intentions exhibited by their growing health concerns that have grown significantly under the influence of the COVID-19 pandemic.

Even though prior studies on the association between perceived food hygiene and purchase intentions are minimal, the result is aligned with the prior study by Ratasuk and Gajesanand [2] that food safety, which is the closest concept to food hygiene, has a significant impact on customer repurchase intentions in the food delivery service business in Bangkok. It is also concurrent with the studies of Cui, Jiang, Deng and Zhang [75] and Hsu, Chang and Lin [76] that food safety can determine purchase intentions of online food markets and organic food businesses. The study of Abidin [67] also found the positive impact of food hygiene on customer purchase intentions in restaurants. These prior findings may be caused by the significant growth of people's health concerns that has proliferated during the COVID-19 pandemic.

The results from the Sobel test confirming the mediations of customer trust and perceived risk as the mechanism allowing perceived hygiene to promote purchase intentions were also in line with prior research; for example, the study by Shafieizadeh, Alotaibi and Tao [77] stated that food hygiene as part of food safety enhances customer trust in restaurants. Ratasuk and Gajesanand [3] also found that food safety contributes significantly to food delivery customers' trust directly and via the mediation of perceived risk. Ventre and Kolbe [57] found that trust lowers customers' risk perception and promote online purchase intentions. Moreover, Ratasuk and Gajesanand [2] also unveiled that perceived risk and customer trust partially mediated the relationship between customer-perceived food safety and repurchase intentions in Bangkok's food delivery business. The research by Abidin [67] suggested that risk positively mediated between food hygiene quality and purchase intentions in restaurants in Malaysia. The mediation may be explained that food hygiene fosters customer confidence in food products, allowing them rely on businesses. Once customers trust a business, they tend to lower their guard and perceive lower risk. Therefore, individuals who perceive a high

level of food hygiene tend to have higher purchase intentions because food hygiene foster their trust allowing them to lower their guard perceiving lower risk.

These findings are aligned with the explanations of the purchasing decision-making process and the social exchange theory. The two can be integrated to explain the results that product purchasing can be regarded as the relationship between a business and a customer after considering alternatives and information gathered from available resources after realizing their needs, and the relationship last as long as the benefits of both parties outnumber their costs [24]. In the alternative-evaluation stage, customers compare the benefits of each alternative to its costs [2,22,23]. The benefits from purchasing a product that build customer confidence and trust in businesses, offset their costs, such as risk perception from consuming the product and not to choose other alternatives [2,3]. According to Shiau and Luo [19], the social exchange theory can explain the relationship between businesses and customers in the online shopping industry. Hsiao, Ma, Manfreda, Baker and Xu [96] also employed social exchange theory in boosting customer loyalty which is a strong tied between customers and businesses in the hotel industry in Australia.

Moreover, the study by Ratasuk and Gajesanand [2] applied the integration of the two theories to explain the relationship between customers and food delivery businesses. Lastly, the influences of control variables on food hygiene can be interpreted that female customers tend to value and pay more attention to food hygiene than male customers. Also, customers with higher levels of education tend to value and focus more on food hygiene than those with lower levels of education in purchasing street foods.

## Conclusion

In the street food business context, according to the findings, under the influence of the COVID-19 pandemic, people tend to be more sensitive, concerned, and alert with health and well-being issues than ever[2,3], decent food hygiene practices and evidence, for example, the operator's personal hygiene, food handling process, and surrounding environments, tend to drive customers to feel safer with their consumption by gaining their trust that food purchased from the vendor are safe to consume and do no harm to their life and well-being. The created trust also makes them confident in purchasing and consuming the street food allowing them to perceive minimal risk that they may experience from street food consumption, such as foodborne illness caused by contamination, and less concerned with COVID-19 that can be airborne spreading and infected. However, no such evidence exists that food hygiene can limit the spread of COVID-19. As a result, their purchase intentions are promoted. Moreover, female and educated customers, according the results, tend to value food hygiene and include it in their consideration when purchasing street food than others.

## Academic contributions

According to the results, this research provides novel and valuable knowledge on the role of food hygiene in driving purchase intentions, which is still limited in the literature. In particular, the food hygiene concept applied as a latent variable in a quantitative study is minimal. This research also provides additional knowledge and evidence on the relationships among food hygiene, customer trust, perceived risk, and purchase intentions explained by the social exchange theory and the purchase decision-making process in the literature, regarded as a new aspect of the theories. Moreover, the mediating roles of customer trust and perceived risk as the mechanism of how perceived food hygiene promotes purchase intentions, particularly in the street food business under the influence of the COVID-19 pandemic context, are also limited and need to be further explored.

## Practical contributions and suggestions

Furthermore, the research findings provide practical implications to street food operators and all relevant industry stakeholders, such as government units responsible for improving the street food industry and the local economy. Street food operators should keep their stalls and stores clean and look pleasant to build customers' confidence and trust that their foods are safe and free from foodborne illness and other health concerns, for example, they should always have their spaces clean and organized. They should always have their food covered to prevent contamination from dust and other unwanted from the street and surrounding unclean air. The operators should always dress appropriately and professionally for food preparation and cooking, such as wearing a hat or hair net, gloves, an apron, and a mask to prevent food contamination. They should always wash their hands and use disposable food containers and utensils instead of those that require washing due to the difficulty in supplying

clean water at the site. This should build customers' confidence and promote their purchase intentions and business competitiveness. As for any relevant government units mandated and functioning to support the street food industry to achieve sustainable goals that can generate prosperity in the local economic system, they should encourage street food operators to pursue knowledge and standard practices, particularly food hygiene and food safety. They can organize free training programs for the operators and certify them. The program can be held yearly, and the certificates can be used as a guarantee for the standard hygiene and safety of their stores and food products, valid for one year or longer, that is required to renew by undertaking the training program every year to sustainable results and success. They can also enact a law requiring all street food operators to be certified to register and operate their businesses. These actions are expected to sustainably promote food safety in the street food business and enhance Thai street food's charm, attracting people worldwide to visit the country and generating more revenue.

**Limitations and recommendations for future studies**

Although this study provides valuable contributions, such as new knowledge and evidence supporting the existing literature, particularly in the foodservice and street food, there are still some limitations. Since this research is a cross-sectional study, causing the restriction in confirming the causal relationships, the results were restricted to only association between variables, not causation. Also, this study employed a self-administered survey from one data source, street food customers, which may have caused subjective bias in the results. Future related studies are suggested to collect data from various sources, for example, other related stakeholders in the industry, like street food operators and relevant government agencies, to vary the data sources. Future studies should also include other potential variables that may significantly impact the variables to expand the literature and the theories, such as customer trust, loyalty, word-of-mouth, and repurchase intentions. Other theories can also be integrated and applied to expand the existing knowledge and the literature. Finally, future studies are suggested to explore similar models in different industries and contexts.

**References**

1. TheForeignAgriculturalService. Thailand: The Impact of the COVID-19 Outbreak on the Thai Food Retail and Food Service Sector. https://www.fas.usda.gov/data/thailand-impact-covid-19-outbreak-thai-food-retail-and-food-service-sector
2. Ratasuk A, Gajesanand S. Roles of Food Safety on Customer Repurchase Intentions: The Mediation of Perceived Risk and Trust in Food Delivery Service in Bangkok during COVID-19. *Journal of Business Administration*. 2022;175(3):71-93.
3. Ratasuk A, Gajesanand S. Does Food Safety Build Customer Trust? The Mediating Role of Perceived Risk in Food Delivery Service in Bangkok during the COVID-19 Pandemic. *Asia Social Issues*. 2023;16(2):e253719-e253719.
4. Occhiogrosso G. Trends Affecting The Restaurant Industry In 2022. *Small Business* blog. 11/03/2023, 2022. https://www.forbes.com/sites/garyocchiogrosso/2022/03/16/trends-affecting-the-restaurant-industry-in-2022/?sh=7a8b915e51e2
5. KasikornResearchCenter. Turnover of restaurant business to grow in 2022-2023 amid the challenges of operating costs and profitability maintenance. KasikornResearchCenter; 2022. https://www.kasikornresearch.com/en/analysis/k-econ/business/Pages/restaurant-z3352.aspx
6. KasikornResearchCenter. Full service restaurant business in 2022, back to life thanks to relaxation of lockdown measures. KasikornResearchCenter; 2021. https://www.kasikornresearch.com/en/analysis/k-social-media/Pages/Restaurant-FB-24-11-21.aspx
7. Maglumtong M, Fukushima S. Inclusive Development for Street Food Vendors in Modernizing Bangkok, Thailand An Evaluation of the Street Food Program of the Government Savings Bank. *Urban and Regional Planning Review*. 2022;9:42-62.
8. Statista. Restaurant and food service industry in Thailand - statistics & facts. 11/01/2023. Accessed 26/04/2023. https://www.statista.com/topics/6734/restaurant-and-food-service-industry-in-thailand/
9. Statista. Market value of the street food stalls in Thailand from 2020 to 2021 with a forecast for 2022. 14/12/2022. Accessed 24/04/2023. https://www.statista.com/statistics/1133616/thailand-street-food-market-value/#:~:text=The%20market%20value%20of%20street,cheap%20food%20items%20and%20convenience.
10. Ratasuk A, Charoensukmongkol P. The role of team trust and team conflict on innovative performance of multicultural teams in the restaurant. *Thammasat Review*. 2019;22(2):1-18.
11. Ratasuk A, Charoensukmongkol P. Does cultural intelligence promote cross-cultural teams' knowledge sharing and innovation in the restaurant business? *Asia-Pacific Journal of Business Administration*. 2020;12(2):183-203.
12. Winarno FG, Allain A. Street foods in developing countries: lessons from Asia. *Food, nutrition and agriculture*. 1991;1(1):11-18.
13. Letuka Po, Nkhebenyane J, Thekisoe O. Street food handlers' food safety knowledge, attitudes and self-reported practices and consumers' perceptions about street food vending in Maseru, Lesotho. *British Food Journal*. 2021;123(13):302-316.
14. Soon JM. Rapid Food Hygiene Inspection Tool (RFHiT) to assess hygiene conformance index (CI) of street food vendors. *LWT*. 2019;113:108304.
15. Esposito F, Boccuzzi M, Riad A, et al. Airborne contamination during a full-mouth disinfection session: Pilot study before COVID-19 pandemic. 2021;
16. Okojie PW, Isah EC. Food hygiene knowledge and practices of street food vendors in Benin City, Nigeria. *International Journal of Consumer Studies*. 2019;43(6):528-535.
17. Frempong CS, Charles-Unadike VO, Anaman-Torgbor JA, Tarkang EE. Correlates of intention to practice good food hygiene among street food-vendors in Kadjebi District, Ghana. *International Journal of Health Promotion and Education*. 2022:1-13.
18. Cook KS, Cheshire C, Rice ER, Nakagawa S. Social exchange theory. *Handbook of social psychology*. 2013:61-88.
19. Shiau W-L, Luo MM. Factors affecting online group buying intention and satisfaction: A social exchange theory perspective. *Computers in Human Behavior*. 2012;28(6):2431-2444.
20. Xu S, Wang Y-C, Ma E. A workplace-driven model on the formation of OCB-C: perspectives of social exchange theory and agency theory. *International Journal of Contemporary Hospitality Management*. 2022;34(7):2684-2703.
21. Romani-Dias M, Carneiro J. Internationalization in higher education: faculty tradeoffs under the social exchange theory. *International Journal of Educational Management*. 2020;34(3):461-476.
22. Ratasuk A. The impact of the no-plastic-bag campaign on customer repurchase intentions and its mechanism in the modern trade business in Bangkok. *Asia Social Issues*. 2022;15(2):251631-251631.
23. Ratasuk A, Gajesanand S. Factors influencing brand image and customer repurchase intention: The case of coffee chain shops located in gas service stations in Bangkok. *University of the Thai*

*Chamber of Commerce Journal Humanities and Social Sciences*. 2020;40(3):171-188.
24. Kotler P. *Kotler on marketing*. Simon and Schuster; 2012.
25. Karimi S, Papamichail KN, Holland CP. The effect of prior knowledge and decision-making style on the online purchase decision-making process: A typology of consumer shopping behaviour. *Decision Support Systems*. 2015;77:137-147.
26. Kaufmann L, Gaeckler J. On the relationship between purchasing integration and purchasing decision-making speed. *International Journal of Physical Distribution & Logistics Management*. 2015;
27. Ratasuk A. Identifying online opinion leaders and their contributions in customer decision-making process: A case of the car industry in Thailand. *APHEIT International Journal*. 2019;8(1):37-60.
28. Song H, Ruan WJ, Jeon YJJ. An integrated approach to the purchase decision making process of food-delivery apps: Focusing on the TAM and AIDA models. *International Journal of Hospitality Management*. 2021;95:102943.
29. Lin X, Featherman M, Brooks SL, Hajli N. Exploring gender differences in online consumer purchase decision making: An online product presentation perspective. *Information Systems Frontiers*. 2019;21:1187-1201.
30. Chen A, Lu Y, Wang B. Customers' purchase decision-making process in social commerce: A social learning perspective. *International Journal of Information Management*. 2017;37(6):627-638.
31. Han H, Ryu K. The theory of repurchase decision-making (TRD): Identifying the critical factors in the post-purchase decision-making process. *International Journal of Hospitality Management*. 2012;31(3):786-797.
32. Morrison DG. Purchase intentions and purchase behavior. *Journal of marketing*. 1979;43(2):65-74.
33. Morwitz VG, Steckel JH, Gupta A. When do purchase intentions predict sales? *International Journal of Forecasting*. 2007;23(3):347-364.
34. Mateen Khan M. Celebrity endorsement and purchase intention: The role of perceived quality and brand loyalty. *Khan, MM, Memon, Z, & Kumar, S,(2019) Celebrity Endorsement and Purchase Intention: The Role of Perceived Quality and Brand Loyalty Market Forces*. 2019;14(2):99-120.
35. Chetioui Y, Benlafqih H, Lebdaoui H. How fashion influencers contribute to consumers' purchase intention. *Journal of Fashion Marketing and Management: An International Journal*. 2020;24(3):361-380.
36. Panda TK, Kumar A, Jakhar S, et al. Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. *Journal of Cleaner production*. 2020;243:118575.
37. Peña-García N, Gil-Saura I, Rodríguez-Orejuela A, Siqueira-Junior JR. Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*. 2020;6(6):e04284.
38. Dash G, Kiefer K, Paul J. Marketing-to-Millennials: Marketing 4.0, customer satisfaction and purchase intention. *Journal of business research*. 2021;122:608-620.
39. Dwidienawati D, Tjahjana D, Abdinagoro SB, Gandasari D. Customer review or influencer endorsement: which one influences purchase intention more? *Heliyon*. 2020;6(11):e05543.
40. Leninkumar V. The relationship between customer satisfaction and customer trust on customer loyalty. *International Journal of Academic Research in Business and Social Sciences*. 2017;7(4):450-465.
41. Ye S, Ying T, Zhou L, Wang T. Enhancing customer trust in peer-to-peer accommodation: A "soft" strategy via social presence. *International Journal of Hospitality Management*. 2019;79:1-10.
42. Jalilvand MR, Vosta LN, Mahyari HK, Pool JK. Social responsibility influence on customer trust in hotels: mediating effects of reputation and word-of-mouth. *Tourism Review*. 2017;
43. Firman A, Ilyas GB, Reza HK, Lestari SD, Putra AHPK. The mediating role of customer trust on the relationships of celebrity endorsement and e-WOM to Instagram Purchase intention. *Jurnal Minds: Manajemen Ide dan Inspirasi*. 2021;8(1):107-126.
44. Li M-W, Teng H-Y, Chen C-Y. Unlocking the customer engagement-brand loyalty relationship in tourism social media: The roles of brand attachment and customer trust. *Journal of Hospitality and Tourism Management*. 2020;44:184-192.
45. Kartika T, Firdaus A, Najib M. Contrasting the drivers of customer loyalty; financing and depositor customer, single and dual customer, in Indonesian Islamic bank. *Journal of Islamic Marketing*. 2020;11(4):933-959.
46. Iglesias O, Markovic S, Bagherzadeh M, Singh JJ. Co-creation: A key link between corporate social responsibility, customer trust, and customer loyalty. *Journal of Business Ethics*. 2020;163(1):151-166.
47. Dehghanpouri H, Soltani Z, Rostamzadeh R. The impact of trust, privacy and quality of service on the success of E-CRM: the mediating role of customer satisfaction. *Journal of business & industrial marketing*. 2020;35(11):1831-1847.
48. Halizah SN, Retnowati E, Darmawan D, Khayru RK, Issalillah F. Determinants of Customer Trust: A Study on Safety, Ease-of-use, and Perceived usefulness of Herbal Products of Kuku Bima Ener-G. *Journal of Trends Economics and Accounting Research*. 2022;2(4):86-92.

49. Islam T, Islam R, Pitafi AH, et al. The impact of corporate social responsibility on customer loyalty: The mediating role of corporate reputation, customer satisfaction, and trust. *Sustainable Production and Consumption*. 2021;25:123-135.
50. Ariffin SK, Mohan T, Goh Y-N. Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*. 2018;12(3):309-327.
51. Dowling GR. Perceived risk: the concept and its measurement. *Psychology & Marketing*. 1986;3(3):193-210.
52. Mitchell VW. Consumer perceived risk: conceptualisations and models. *European Journal of marketing*. 1999;33(1/2):163-195.
53. Dowling GR, Staelin R. A model of perceived risk and intended risk-handling activity. *Journal of consumer research*. 1994;21(1):119-134.
54. Hussain S, Ahmed W, Jafar RMS, Rabnawaz A, Jianzhou Y. eWOM source credibility, perceived risk and food product customer's information adoption. *Computers in Human Behavior*. 2017;66:96-102.
55. Casidy R, Wymer W. A risk worth taking: Perceived risk as moderator of satisfaction, loyalty, and willingness-to-pay premium price. *Journal of Retailing and Consumer Services*. 2016;32:189-197.
56. Qalati SA, Vela EG, Li W, Dakhan SA, Hong Thuy TT, Merani SH. Effects of perceived service quality, website quality, and reputation on purchase intention: The mediating and moderating roles of trust and perceived risk in online shopping. *Cogent Business & Management*. 2021;8(1):1869363.
57. Ventre I, Kolbe D. The impact of perceived usefulness of online reviews, trust and perceived risk on online purchase intention in emerging markets: A Mexican perspective. *Journal of International Consumer Marketing*. 2020;32(4):287-299.
58. Park J, Amendah E, Lee Y, Hyun H. M-payment service: Interplay of perceived risk, benefit, and trust in service adoption. *Human Factors and Ergonomics in Manufacturing & Service Industries*. 2019;29(1):31-43.
59. Bonnin G. The roles of perceived risk, attractiveness of the online store and familiarity with AR in the influence of AR on patronage intention. *Journal of Retailing and Consumer Services*. 2020;52:101938.
60. Loh Z, Hassan SH. Consumers' attitudes, perceived risks and perceived benefits towards repurchase intention of food truck products. *British Food Journal*. 2022;124(4):1314-1332.
61. Yıldırım M, Geçer E, Akgül Ö. The impacts of vulnerability, perceived risk, and fear on preventive behaviours against COVID-19. *Psychology, health & medicine*. 2021;26(1):35-43.
62. Pattanapomgthorn J, Sutduean J, Keohavong B. Impact of genetically modified food knowledge, environmental, and food safety concerns on purchase intention of genetically modified food in mediating role of perceived risk: An empirical study in Thailand. *World Food Policy*. 2020;6(1):23-41.
63. Baral S, Moon DH, Shin YC, Pahari S, Acharya SR. Perception of food hygiene and nutritive value of the food. *The Korean Journal of Food & Health Convergence*. 2020;6(4):1-6.
64. Yu J, Seo J, Hyun SS. Perceived hygiene attributes in the hotel industry: customer retention amid the COVID-19 crisis. *International Journal of Hospitality Management*. 2021;93:102768.
65. Egan M, Raats M, Grubb S, et al. A review of food safety and food hygiene training studies in the commercial sector. *Food control*. 2007;18(10):1180-1190.
66. Rennie DM. Evaluation of food hygiene education. *British Food Journal*. 1994;
67. Abidin UFUZ. *The mediating role of perceived risk in the relationship between restaurant food hygiene quality and consumer purchase intention*. Universiti Putra Malaysia; 2007.
68. Ababio PF, Lovatt P. A review on food safety and food hygiene studies in Ghana. *Food Control*. 2015;47:92-97.
69. Kamboj S, Gupta N, Bandral JD, Gandotra G, Anjum N. Food safety and hygiene: a review. *International Journal of Chemical Studies*. 2020;8(2):358-368.
70. Djekic I, Smigic N, Kalogianni EP, Rocha A, Zamioudi L, Pacheco R. Food hygiene practices in different food establishments. *Food Control*. 2014;39:34-40.
71. Yasami M, Wongwattanakit C, Promphitak KT. International Tourists' protection Intentions to Use Food Hygiene Cues in The Choice of Destination Local Restaurants. *Geo Journal of Tourism and Geosites*. 2020;29(2):583-596.
72. Bloomfield SF, Ackerley LM. Developing resilience against the threat of infectious diseases and anti-microbial resistance: putting targeted hygiene into practice in home and everyday lives. *Public Health in Practice*. 2023:100362.
73. Choi HC, MacLaurin T, Cho J-E, Hahm S-P. Food hygiene standard satisfaction of Singaporean diners. *Journal of Foodservice Business Research*. 2010;13(3):156-177.
74. Läikkö-Roto T, Nevas M. Restaurant business operators' knowledge of food hygiene and their attitudes toward official food control affect the hygiene in their restaurants. *Food Control*. 2014;43:65-73.

75. Cui L, Jiang H, Deng H, Zhang T. The influence of the diffusion of food safety information through social media on consumers' purchase intentions: An empirical study in China. *Data Technologies and Applications*. 2019;53(2):230-248.
76. Hsu SY, Chang C-C, Lin TT. Triple bottom line model and food safety in organic food and conventional food in affecting perceived value and purchase intentions. *British food journal*. 2019;121(2):333-346.
77. Shafieizadeh K, Alotaibi S, Tao C-W. Information processing of food safety messages: what really matters for restaurant customers? *International Journal of Contemporary Hospitality Management*. 2023;
78. Gasem MH, Dolmans W, Keuter M, Djokomoeljanto R. Poor food hygiene and housing as risk factors for typhoid fever in Semarang, Indonesia. *Tropical Medicine & International Health*. 2001;6(6):484-490.
79. Finger JA, Lima EM, Coelho KS, et al. Adherence to food hygiene and personal protection recommendations for prevention of COVID-19. *Trends in food science & technology*. 2021;112:847-852.
80. Lilliefors HW. On the Kolmogorov-Smirnov test for normality with mean and variance unknown. *Journal of the American statistical Association*. 1967;62(318):399-402.
81. Iliyasu R, Etikan I. Comparison of quota sampling and stratified random sampling. *Biom Biostat Int J Rev*. 2021;10:24-27.
82. Kadilar C, Cingi H. Ratio estimators in stratified random sampling. *Biometrical journal*. 2003;45(2):218-225.
83. Ghali-Zinoubi Z, Toukabri M. The antecedents of the consumer purchase intention: Sensitivity to price and involvement in organic product: Moderating role of product regional identity. *Trends in Food Science & Technology*. 2019;90:175-179.
84. Curvelo ICG, Watanabe EAdM, Alfinito S. Purchase intention of organic food under the influence of attributes, consumer trust and perceived value. *Revista de Gestão*. 2019;26(3):198-211.
85. Joo D, Xu W, Lee J, Lee C-K, Woosnam KM. Residents' perceived risk, emotional solidarity, and support for tourism amidst the COVID-19 pandemic. *Journal of Destination Marketing & Management*. 2021;19:100553.
86. Hair Jr JF, Howard MC, Nitzl C. Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*. 2020;109:101-110.
87. Hair Jr JF, Matthews LM, Matthews RL, Sarstedt M. PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*. 2017;1(2):107-123.
88. Preacher KJ, Leonardelli GJ. Calculation for the Sobel test. *Retrieved January*. 2001;20:2009.
89. Hayes AF, Preacher KJ. Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*. 2014;67(3):451-470.
90. Hair JF, Risher JJ, Sarstedt M, Ringle CM. When to use and how to report the results of PLS-SEM. *European business review*. 2019;31(1):2-24.
91. Hair J, Hollingsworth CL, Randolph AB, Chong AYL. An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems*. 2017;
92. Manley SC, Hair JF, Williams RI, McDowell WC. Essential new PLS-SEM analysis methods for your entrepreneurship analytical toolbox. *International Entrepreneurship and Management Journal*. 2021;17:1805-1825.
93. Kock N, Lynn G. Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. 2012;
94. Senaviratna N, Cooray T. Diagnosing multicollinearity of logistic regression model. *Asian Journal of Probability and Statistics*. 2019:1-9.
95. Kock N. WarpPLS User Manual: Version 6.0. Laredo, TX: ScriptWarp Systems; 2017.
96. Hsiao A, Ma E, Manfreda A, Baker M, Xu J. A social exchange perspective on boosting customer loyalty through culturally competent servers. *Journal of Hospitality Marketing & Management*. 2023;32(4):555-577.