

Culinary Caravan: Unveiling Klang Valley's food truck frenzy and culture

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Abstract

Investigating the relationships between product quality, food premises and food handlers' cleanliness and customer hygiene satisfaction yielded a crucial implication. The 116 customers of food trucks in Klang Valley revealed the cleanliness attributes related to their hygiene satisfaction. The regression analysis shows that food product quality was the most significant predictor. This study's findings can contribute valuably to improving cleanliness practices among food truck food handlers, serving as a foundation for promoting cleanliness standards within the Malaysia Food Truck Association.

Keywords: Cleanliness attributes; food truck; Hygiene satisfaction; Malaysia

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1.0 Introduction

Food trucks are gaining popularity, and food availability on nearly significant roads with a pedestrian population attracts a crowd of customers. It has become a tourist's way of experiencing local food. Apart from the availability of delicious dishes cheap, and food variety, a clean and comfortable ambience may satisfy hungry customers and tourists. Market Analysis (2020) reported that the global food trucks market size was valued at USD 3.93 billion in 2020 and is expected to expand at a compound annual growth rate of 6.8% from 2021 to 2028 globally. This is due to the simple yet profitable type of business. Food trucks created a new norm, which allowed restaurants and chefs to go mobile and serve their food at any convenient place at any event and carnival. People tend to travel to any food truck valley for food. While the locals may find the food trucks interesting due to the varieties of food, taste and less expensive, the international tourists tend to visit to explore the real, local food and how local people eat. Nevertheless, the Malaysian food trucks have to comply with Food Hygiene code of Practice 1974 for their premises or appliances.

Although the food poisoning incident rate is lower than in many other countries (KKM, 2014), the number of food poisoning cases in 2019 has increased by 24% more than in 2018. WHO (2015) reported that diarrhoea has been a typical symptom of food poisoning, represents 3% of deaths worldwide, and is recognised as a fatal disease. Therefore, failure to implement good practices is the factor for this increment. The foodborne illness cases associated with food trucks are rarely discussed in the literature, and the possibility of foodborne disease related to food trucks is unrevealed. Therefore, This study investigates customers' hygiene satisfaction on food trucks to understand their opinion on food hygiene. Specifically, this study was initiated to investigate the relationship between cleanliness attributes and customers' hygiene experience, consisting of four objectives. The objectives are (1) to identify the association between food product cleanliness and customers' hygiene experience, (2) to determine the relationship between food handlers' cleanliness and customers' hygiene experience and (3) to determine if there is any significant relationship between food product quality and customers' hygiene satisfaction. The fourth objective is to investigate the most significant contributor to customers' hygiene satisfaction.

2.0 Literature Review

Theory of Planned Behaviour (TPB)

TPB was developed in 1975 by Fishbein and Azjen. According to TPB, people believe that they can perform the behaviour whenever they choose to do so. Gradually, the TPB was used more often to study behaviours where control was variable. To accomplish this, the TPB was complemented by a component called perceived behavioural control. Theoretically, this represents the extent to which people believe they can perform a behaviour since they have adequate capabilities and/or opportunities as well as environmental responsibility. High environmental responsibility is reported to be a further bridge between intention and behavior in deciding to dine in (Hua & Dong, 2022). The

usage of TPB in predicting the food handler and consumer behaviour is common in literature. The increase in foodborne outbreaks is reflected in the food handler behaviour. Some even suggest that food safety knowledge does not always translate into behavioural improvement (Wambui et al., 2017; Rezaei et al., 2018). Food handlers regardless of whichever food service type is, are responsible to perform food safety behaviours to reduce the food illness cases globally. Conversely, accomplishing the food safety training somehow did not promise the improvement intentions or on-the-job behaviours will follow.

2.1 Relationship between Food Premise Cleanliness and Satisfaction

Satisfaction refers to the emotion, response, and reaction of consumers to products or services. Customer satisfaction is an evaluation of the customers' experience upon receiving a product or service. When a product or service meets or exceeds a customer's expectations, the customer is satisfied, besides satisfied customers remain loyal. Customers grew unsatisfied with the product if it did not fulfil their expectations, whereas satisfied customers remained loyal to a product or service if the product met their expectations (Gunawan, 2022). Similarly confirmed that customer satisfaction is one of the elements that contribute to customer revisit intention (Polas et al., 2020). The food flavour, service, price, environment, and hygiene are just a few of the variables that have been found to affect customer satisfaction while visiting food establishments. According to a survey done by Fatimah et al. (2011) on Malaysian consumers, while choosing a restaurant, cleanliness was the most important factor, followed by food variety and the location of the establishment. This statement suggested that customers are extremely concerned about the possibility of contracting food-borne illnesses. Under the Food Act of 1983, all food establishments in Malaysia, including catering services, restaurants, stalls, canteens, and food trucks, must adhere to the regulations set forth in the Food Hygiene Regulations of 2009. Studies in the United States (US) found that personal hygiene of food handlers was a significant factor contributing to customer satisfaction and their intention to revisit despite some areas required improvements, such as table hygiene, food temperature, and handwashing lavatory (Liu and Lee, 2018). The Ministry of Health and local government must also conduct regular inspections of these facilities to ensure that they are kept clean and maintained. In conclusion, it was discovered that the cleanliness of the premises ensured customer satisfaction. "Studies in the United States (US) found that personal hygiene of food handlers was a significant factor contributing to customer satisfaction and their intention to revisit despite some areas required improvements, such as table hygiene, food temperature, and handwashing lavatory (Liu and Lee, 2018). Conversely, studies regarding the satisfaction of Malaysians were only focused on ambience, food, and service quality provided by the food premises" (Chahal and Kamil, 2017), hence the effect of food premise cleanliness to customer's hygiene satisfaction is really needed.

2.2 Relationship between Food Handler Cleanliness and Satisfaction

Food handlers play a crucial role in the food truck business because they do all work from the preparations to selling processes, but food handlers with poor hygiene practices at the

same time often associate with a potential to spread the food-borne diseases. Besides, their food handling techniques, the food storage and temperature concern, personal protective equipment (PPE) such as aprons, suitable shoes and utensils may cause cross contamination issues. The scholars also identified that inadequate hygiene training, poor infrastructure, and weak regulatory inspections can expose the food to unsafe resources. Based on recent customer online reviews in the United States of America, food practices on cleanliness were found statistically significant inverse with the satisfaction of customers (Hodges et al., 2022). Cleanliness was also found to be the influence of safety indicators for the international tourists' choice in small restaurants in Thailand (Mehri et al., 2022). These studies proved that cleanliness has been an important quality attribute on tourists' satisfaction. Hence, it implies the sustainable management of a food handler practices and therefore, this study would like to posit that food handler cleanliness contributes to customer's hygiene satisfaction.

2.3 Relationship between Product Quality and Satisfaction

Another factor that may affect hygiene satisfaction is food quality. Food quality had numerous aspects, they not only considered one variable, but included all food features which also contributed to customer's satisfaction (Gok, et al., 2019; Ruo et al. 2020). Moreover, in another study by Mooradian et al. (2014) claimed that there is an interrelation between product quality and price whereby consumers want to pay more for higher quality goods and services (better quality). The elements of product quality in food trucks also need to be considered, in fact the number of food truck operations has increased due to urbanization, which has an impact on the social, economic, and cultural benefits connected with food truck operations (Hanafi et al., 2021). IBIS World estimates that over the last five years, the global food truck industry has grown at an average annual pace of 9.3 percent (Bandaru and Venkateshwarlu, 2017). Due to its recent emergence in urban culture, food trucks have the potential to transform underutilized areas into interactive gastronomic experiences. The market for food trucks has grown to be a worldwide phenomenon, garnering popularity on an international level. The social, cultural, and economic possibilities accessible to both vendors and customers in the United States are impacted by food trucks (Corvo, 2014). Due to the expansion of culinary tourism in New Zealand, food trucks now hold a significant amount of importance (Idicula Thomas, 2016). Pop-up restaurants with well-known names enter the food truck industry in cities in North America, Australia, and Europe, for instance Mokhtar et al. (2017). Young entrepreneurs and chefs in developed nations are drawn to food truck businesses because of their low start-up costs.

3.0 Material & Methods

This study employed a quantitative research strategy by employing a correlational research design involving a cross-sectional study in which data were collected only once or during a particular time frame. The survey was conducted between May and June 30, 2022. There were screening questions included in the online survey to ensure that only eligible

respondents participated in this study. The respondent was chosen based on specific criteria, with only Food Truck consumers in the Klang Valley being recruited. In 2011, food trucks contributed 37% of the \$1.4 billion in road revenue in Malaysia (Jane 2013). It is estimated that five new food trucks open each month in the Klang Valley, contributing to the increasing market demand (Gobinath, 2020). Puchong, Shah Alam, and Klang (1st), Bangi, Kajang, and Serdang (2nd), Putrajaya (3rd), and Kuala Lumpur (4th) are therefore reasonable study locations for Food Truck Valley in the Klang Valley area. As consequence, the four zones of Food Truck Valley in the Klang Valley area, including Puchong, Shah Alam, and Klang (1st), Bangi, Kajang, and Serdang (2nd), Putrajaya (3rd), and Kuala Lumpur (4th), are a suitable research location to be chosen.

An online survey questionnaire was utilised in this study, adapted from Gopi and Samat (2020) and Nur Afif Nabilah et al. (2021), and divided into five distinct sections. These sections included demographic profile, food premise cleanliness, food handler's cleanliness, product quality, and customers' hygiene satisfaction (Nur Afif Nabilah et al., 2021). The survey was distributed to individuals who were 18 years of age or older and had prior experience purchasing food from food trucks.

4.0 Results & Discussion

4.1 Respondents' Demographic Profile

A total of 116 respondents from the Klang Valley area participated in this study with 79.3% were female. In terms of respondents by food truck's location, Puchong, Shah Alam, and Klang zone recorded the highest percentage response rate by 45.7%, followed by Kuala Lumpur (35.3%), and Putrajaya (6.9 %). Majority of respondents spent 1 to 5 times per month and beverages is the most frequent type of food purchased.

4.2 Descriptive Analysis

4.2.1. Food premises cleanliness

Table 1. Food premises cleanliness

Food Premises Cleanliness			
	M	SD	(%)
FPC01	3.22	0.67	89.7
FPC02	3.19	0.77	81.9
FPC03	3.29	0.62	91.3
FPC04	3.27	0.65	90.5

Food Premises Cleanliness			
	M	SD	(%)
FPC05	3.33	0.67	90.5
FPC06	3.16	0.78	80.2
FPC07	3.16	0.77	82.8

Table 1 shows the respondents rate for food truck cleanliness. Most respondents agreed (91.3%) that the food truck kitchen area is clean and food is kept away from flie, and the food truck has a good ventilation system (89.7%). This is important to keep the air surrounding from being polluted by smoke produced when preparing food and to make food handlers feel comfortable in the hot kitchen. Despite a good ventilation system, it found that respondents are not really happy with food truck’s waste management when 20% rated that the dustbin is not properly closed. Uncovered dustbin may attract and transmit bacteria, cause foods to be easily contaminated and affect the customers satisfaction (Lim et al., 2021).

4.2.2. Food Handler cleanliness

Most of the respondents agreed that food handlers applied proper hygiene practice during handling food whereby clean utensils, clean aprons (93.1%) and wore clean aprons with a covered head and shoes to prevent hair fall and accidents (80.2%) . This is one of the appropriate ways in avoiding cross contamination in food. However, some of the food handlers were not wearing gloves (70.7%) and they were wearing jewellery while serving or cooking food (60.3%). This means that there are still food handlers that did not really concern themselves with the importance of using gloves and the bad impact of wearing jewellery while preparing foods. However, food handlers reported using proper containers to serve food (94.9%) and the food served complimentary with a clean and right utensil (92.3%).

Table 2: Food Handler Cleanliness.

Food Handler Cleanliness			
	M	SD	A (%)
FHC01	3.35	0.63	93.1
FHC02	3.16	0.77	80.2
FHC03	2.81	0.86	60.3

Food Handler Cleanliness			
	M	SD	A (%)
FHC04	2.97	0.81	70.7
FHC05	3.29	0.60	92.3
FHC06	3.41	0.59	94.9

4.2.3. Food Quality

In terms of food product quality, overall food being served is tasty (92.2%), good quality (93.1%) and served at acceptable serving temperature (91.3%) of food using a proper and suitable container. In line with the above statement, it can be said that most of the respondents knew the improper holding of food at the right temperature could lead to foodborne illness (Bakar & Abdullah, 2020). Moreover, variability of food choices (86.3%) somehow shows an unaffordable price for approximately 12.6% of respondents as depicted in Table 3. All these elements (see Table. 3) were important in managing the food business and gaining a loyal customer.

Table 3: Food Quality

Food Quality			
	M	SD	A (%)
FPQua01	3.33	0.71	86.3
FPQua02	3.33	0.62	92.2
FPQua03	3.32	0.59	93.1
FPQua04	3.28	0.64	91.3
FPQua05	3.26	0.69	87.1
FPQua06	3.02	0.81	78.4

4.2.4. Consumer's Hygiene Satisfaction

Table 4 shows customer's hygiene satisfaction results. About 96.5% of the respondents agree that cleanliness and hygiene assurance by food vendors while providing service (96.5%). About 91.1% of the respondents were satisfied with the cleanliness of the food truck area while 92.1% of the respondents were satisfied with the overall food product

quality and hygiene. Furthermore, most of the respondents (94.8%) were satisfied with overall performance of the food truck and willing to re-patronage. According to Loh and Hassan (2022), perceived benefit, food safety, attitude, and subjective norm are the factors influencing food truck products' repurchase intention among food truck consumers. This means that the right food safety practice applied by food vendors may increase the repurchase intention among food truck consumers.

Table 4: Consumer's Hygiene Satisfaction

Consumer's Hygiene Satisfaction			
	M	SD	A (%)
CHS01	3.36	0.581	96.5
CHS02	3.28	0.643	91.1
CHS03	3.33	0.601	92.1
CHS04	3.37	0.583	94.8

4.3 The relationship between independent variables and dependent variable

To evaluate the relationship between variables, Pearson's correlation coefficient was computed. The obtained correlational results are shown in Table 5.

Table 5: The relationship between independent variables and dependent variable

	r- value	Relationship	Results
FPC- Satisfaction	0.751	Strong Positive Correlation	Accepted
FHC- Satisfaction	0.682	Strong Positive Correlation	Accepted
FPQua- Satisfaction	0.758	Strong Positive Correlation	Accepted

Note: FPC - Food premise cleanliness, FHC - food handlers' cleanliness, FPQ - food product quality

There is a strong positive correlation between food premise cleanliness and customer's hygiene satisfaction. Besides, a strong positive correlation was also observed between food handler cleanliness and customer's hygiene satisfaction ($r= 0.682$). Therefore, it can be said that the greater cleanliness practiced among food handlers would strongly correlate with the better satisfaction received by customers. Food product quality also shows correlation to hygiene satisfaction ($r= 0.758$).

4.4 Regression Analysis

The regression results presented in Table 6 indicate that the cleanliness of food outlets accounted for approximately 56.4% of the variance in customer hygiene satisfaction. The results indicated that the cleanliness of food establishments significantly predicted customers' satisfaction with hygiene ($\beta=0.751$, $p=0.000$).

Table 6: Regression Analysis

Relationship	R ²	Sig	t-value	Standardized coefficient (β)
FPC- Satisfaction	0.564	0.000	12.134	0.751
FHC- Satisfaction	0.465	0.000	9.962	0.682
FPQua- Satisfaction	0.575	0.000	12.427	.758

Note: FPC - Food premise cleanliness, FHC - food handler's cleanliness, FPQ - food product quality

On top of that, the variance in customer satisfaction related to hygiene can be predicted by the cleanliness of food handlers and the quality of food products by 46.5% and 57.5%, respectively. Thus it can be concluded that food quality has a major effect on customer satisfaction and hygiene.

5.0 Conclusion

The lifestyle of eating out, or more specifically, eating food sold by mobile food trucks in Klang Valley, displays current Malaysian dietary trends. This new dining culture may entice international tourists to try local cuisine and the modern eating style. As a consequence, the hygienic quality experience is critical as we establish a new identity. All variables evaluated have a substantial association, with food product quality being the best predictor. The cleanliness of food trucks attracts not only locals, but also tourists' purchasing decisions to spend their time and money. Yet due to the fact that this study was limited to Klang Valley, the findings cannot be generalised to the entire Malaysian population. To obtain more reliable data and outcomes, a large research setting area as well as other aspects that may contribute to hygiene satisfaction is recommended. However, the samples represent the eating habits of locals as well as the potential of being reached out by international tourists. TPB theorises that food handlers' behaviours may boost tourism through food truck culture. Nonetheless, this study is expected to assist food truck managers and operators in understanding the more significant and less significant aspects of quality and to allow them to investigate the factors that contribute to customers' hygiene satisfaction in order to build a good reputation and retain in the foodservice industry.

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Article Contribution to Related Field of Study

The data provided in this study can provide insight into the development of effective strategies to improve consumers' hygiene experiences of culinary caravan beside addresses that gap through a field study that examines factors that contributed to the growth and popularity of culinary caravan among consumers. Furthermore the results obtained may be use as hygiene quick checklist for culinary caravan owners. This will allow for an effective quality risk assessment of hygiene practices and conditions and potentially provide consumers with safe food.

Authors Declaration

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