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Research paper

Trending and advocating mobile food truck business: a Malaysian consumer perspective

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Abstract

Mobile food truck business has been around for years in the Western countries. However, in Malaysia, it is considered at introductory stage and there are more than 100 varieties of this new mobile food truck concept that is trending today and it is growing rapidly in popularity. Since this concept is relatively new in Malaysia, it is without problems and challenges including difficulty in getting operating license and permit from local authorities, finding strategic locations to park trucks as well as relatively unknown consumer perception towards such unorganized food sector. Hence this study aims to examine consumer perspective in terms of perception, attitude and acceptance towards mobile food truck that seems to be expanding with the aid of social media and as a good small business investment. It appears there is increasing willingness to pay (WTP) for food from mobile food trucks but there is dearth of studies in this area. Methodology utilised data collected through personal interviews with food truck owners and local authority. Subsequently a survey was administered to 200 food truck customers. Findings indicate significant results on perception, attitude and acceptance towards WTP for mobile food. Some recommendations in advocating this new business concept are discussed.

Keywords: *Food Truck; Perception; Attitude; Acceptance; Willingness to Pay.*

1. Introduction

Food distribution and processing industry consist of all processes of value-adding and transforming food into food products and is important in marketing of the food products to customers. Food distribution is multichannel that includes brick and mortar restaurants, outlets, vending machines, kiosks and others. An increasingly popular form of food distribution nowadays is mobile food trucks. A mobile food truck is a self-contained food service operation, located in a readily movable motorized wheeled or towed vehicle, used to store, prepare, display or serve food intended for individual portion service (Linnekin et al., 2011).

Mobile food trucks have been trending in recent years all over big cities globally aided by the social media platforms. It is trending as a new form of food distribution with the use of gourmet food trucks which could be located through various forms of social media through previous visit to the same location, or through a friend (Rishi, 2013). Its convenience street food yet it offers gourmet fast food typically with a short waiting time, equivalent to the fast food restaurant, but much faster than a brick and mortar restaurant. It is reported that the majority of gourmet food truck customers visited the trucks because the food tasted great and the price was reasonable.

There has been rapid emergence of the highly mobile food service industry all over the world. However, this is a new style concept for urban area especially in the cities or towns, for example in Malaysia with large concentration there are many of food trucks in Damansara, Petaling Jaya, Subang and Kuala Lumpur. According to the article "Food Trucks: A How-to Guide" by The Edge Malaysia (2015), to dwell into food truck business in Malaysia is relatively simple. Start-up cost is approximately RM135,000 with a monthly operating cost of RM10,000 and expected yielding of net profit of about RM10,000. Currently, there are over 100 food truck vendors which are wheeling around the Klang Valley alone.

In Malaysia, food truck businesses can be divided into two types which are organized and non-organized sector. The organized sector which has been thriving for a very long time is where the sellers need to apply a permit to get into the business and t legally sell the food in the street. The second is a non-organized sector where the sellers sell street food without getting a permit or in other words illegally which is also very common scene in Malaysia.

According to Ortiz (2013), the young entrepreneurs are responsible in bringing the popularity of mobile food trucks. This has created new trends and new opportunities for the young entrepreneurs who choose to be self-employed. In addition, it gives an advantage for new enterprising entrepreneurs because it is low cost to start a manageable small-scale business. Mobile food trucks have been praised for their innovative cuisine and modern business model riding on the emergence of social media and the Internet of Things (IoT).

2. Problem statement

Marshall (2015) stated that one of the challenges for mobile food truck owners is the street food red tape which includes obtaining seller's permit, health department certification, permits and license for the food truck itself and others from the various government

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authorities. Although in Malaysia, there are various requirements for food distribution such as health department, certificates, truck permits, and parking restrictions. Other challenges facing these business format are parking and locating food trucks as well as subject to vagaries of weather. However there is lack of documentation on studies related to food truck business operations in Malaysia. Hence this paper provides an insight into some of the challenges facing mobile food truck owners.

Gneerally, there is a dearth of studies into this relatively new mobile food trucking concept from the consumer perspective. Numerous studies have focused on WTP for organic food, fast food, and gourmet food. Similary past studies focused on factors driving patronage in a brick and mortar restaurant ambience setting. Hardly any study have dwelled into consumer willingness, perception, attitude and acceptance of mobile food truck setting. Hence this warrants investigation into this new concept of food distribution. Hence this paper aims to address the factors that influence WTP for food from these mobile food trucks in terms of percepton, attitude and acceptance.

Food truck business is also seen as encouraging the younger generation especially the Millenials to become entreprenuers. It was recorded that the street food phenomenon is taking the world by storm, and to date the portable and mobile food industry is serving 2.5 billion people daily in America (Malaysian digest.com). This paper presents some the major obstacles facing local Malaysian owners in their start-ups and operations. The outcome of this paper also aims to recommend several strategies to advocate the mobile food truck business concept into a more organized sector to develop entrepreneurship and provide employment.

3. Literature review

Willingness to pay is the maximum amount of money that a consumer is willing to sacrifice to get a good or service (Freeman, 2013). It means that, if consumers trust the good and the service well, and the food product carries added feature, the consumers are willing to pay some amount of money for this feature. Theory of Planned Behaviour (Ajzen, 1991) stresses in the link between beliefs and behaviour and it has been applied to the studies of the relation among beliefs, attitudes, behavioural intention and behaviour. Behavioural intention is based on attitude toward the behaviour, subjective norm and perceived behavioural control which to be an immediate antecedent of behaviour. The theory argues that an individual's intention to perform a behaviour is influenced by a combination of behavioural attitudes (i.e. a person's beliefs about the desirability of behaviours), subjective norms (i.e. a person's perceived relevance and importance of opinions of significant others) and behavioural control (i.e. a person's sense of control over behaviour) (Ajzen 1991).

Customer perception means the process, by which an individual receives, attends to, interprets and stores information to create meaningful picture of the world (Belch et al, 2005). It depends on the internal factors such as a person's beliefs, experiences, needs, moods, and expectations. It is also influenced by the characteristics of a stimulus such as size, colour, and intensity where the context in which it is seen or heard. Food choice process model is a grounded theory model portraying many factors and processes shaping a person's thoughts, feelings, and actions related to food and eating. There are three main components of food choice process model operate together as proposed by Sobal & Bisogni (2009) which are life course, influences, and personal food systems. The study on keeping up appearances in perception of street food safety in Ghana found that vendors were emphasize the appearances while vending and to ignore core food safety while preparing the food. It is also neglected the food safety such as good hand hygiene and cleanliness of kitchen facilities and lead to serious food-borne diseases (Rheinlander & et, 2008). The research regarding the food service hygiene factors from customers' perspective, hygiene is one of the top three considerations when customers select a dining place (Sambasivan & et al, 2011).

Customer attitude is an expression of feelings about the object whether customers like it or not and also describes the attitude of customer confidence in the various attributes and benefits of such objects (Ramdhani et al., 2012). A study by Cristina (2013) in Romania on customers' attitude towards food products advertising found that, there is a positive attitude towards the commercial for a brand determine positivity towards the respective brand and may result in the formulation of the purchase intent. The research regarding customers' attitude towards food consumption and purchase finds that women at the age of 30-39 and university graduates have a higher score of food consumption and purchasing attitude points than men (Ucar et al, 2012). For the customer knowledge and attitudes toward food traceability, it shows that customers are paying increasingly attention to food safety and quality but unfamiliar with the concept of traceability. Age, education, income and food safety concerns are the factors that mostly influence customer acceptance of traceability and its attributes (Hansstein, 2014).

Customer acceptance is defined as presence of demand for a good or service and willingness of customers to purchase the good or service (Hanks, 1990). Customer acceptance can be driven from a few factors. According to Bauer, Barnes, Reichardt and Neumann (2005), innovativeness is one of the customer-based acceptance drivers. Customers with a high degree of innovativeness characteristic are usually more open towards new experiences and tend "to make constructive use of information received" (Leavitt and Walton, 1975). Another factor considered by Bauer et al. (2005) would be an existing knowledge. The cognitive process of a customer is affected by the existing knowledge which relates to a customer's decision. Next factor to consider is the interest in product itself. The product is explained by every good and service that is offered for purchasing. Customer believes that every product is a merger of uses will promote their satisfaction (Lim & Dubinsky, 2004). Marketing tools used to analyse the food truck business are SWOT analysis, TOWS analysis and Porter's Five Forces.

4. Methodology

Methodology used entailed mixed method. Qualitative data collection entailed semi-structured interviews firstly with four food truck owners in the Klang Valley to gather feedback on issues faced and secondly personal interview with two local authorities at Shah Alam and Subang Jaya towards food truck matters such as licensing and permits. The quantitative approach utilized survey questionnaires to 200 food truck and would-be customers distributed during Food Truck Festivals held in KL and at two universities in Shah Alam and Petaling Jaya. The fieldwork took a duration of three weeks as it involved different locations of the events which were only held at specific times. Quota sampling was used to predetermine the proportion of respondents from different groups in three locations but samples were selected conveniently within the quota set. The final respondent response rate was 87%.

5. Results and discussion

5.1. Analysis of findings from food truck owners

Every district has its own policies on how to start a food truck business. The problem arises when the mobile food truck owner wants to get the license to start the business. In Malaysia, there is lack of clear specific regulations for mobile food truck businesses as they are still new in the industry. According to Shah Alam City Council (MBSA) and Subang Jaya City Council (MPSJ), it was found that there is no specific license for mobile food truck businesses as the owners can get the license under "Temporary Hawker" license. From the personal interview with food truck owners, it was found that food truck businesses fall under the category of 'Temporary Hawker' where the license must be renewed every 3 months for example at Shah Alam which can be cumbersome.

Another issue is choosing suitable locations to operate their business and parking issues. Even though food truck business is mobile, however, having the right location to settle down is a difficult task. Food truck owners cannot park anywhere and at some places they need to lease the spots. It is more convenient to find an open parking lot and set up the truck, especially if they want a spot in mostly highly traffic areas. However such spots may be restricted areas for street food vendoring and cause congestion.

The next challenge is about the weather. Most of the owners agreed that having mobile and outdoor vendoring characteristics, they have to face the issue of unexpected weather. The mobile food truck owners may have efficient system for cooking gourmet food ever known to the food truck industry, but if the weather is not favourable then the business is affected.

5.2. Analysis of findings from local authorities

Currently, both local authorities are still in progress of designing rules and regulations and specific category for food truck business. Authorities were also concerned with food trucks invading locations without permits. Food truck owners need to have a permit for each fixed location which they want to operate their business. In addition the food hygiene of the food served by the trucks as well the cleanliness of surrounding areas in which the food is served and operated is under the jurisdiction of the local authorities.

Analysis on Customer Perspective of Mobile Food Truck

This section presents findings from the survey of 174 customers as respondents who had service experiences with food trucks and had consumed the food purchased. Demographic profile of respondents in Table 1 indicated 72% were females and aged between 21-29 years old (60%). This is testimony of the Millenials who form the main target market for mobile food truck business. Most of them were singles (75%) and mainly students (58.6%) .

Table 1: Summary of Demographic Profile of Respondents (N=174)

Characteristics	Number of respondents (N)	Percentage (%)
Gender		
Male	49	28.2
Female	125	71.8
Age		
Below 20	39	22.4
21-29	105	60.3
30-39	20	11.5
40-49	4	2.3
Above 50	6	3.4
Marital Status		
Married	44	25.3
Single	130	74.7
Race		
Malay	148	85.1
Indian	9	5.2
Chinese	15	8.6
Others	2	1.1
Occupation		
Government servant	36	20.7
Private sector	27	15.5
Students	102	58.6
Self employed	9	5.2
Education level		
SPM	12	6.9
Diploma	58	33.3
Degree	76	43.7
Master's degree/PhD	28	16.1
Income level		
Below RM1000	104	59.8
RM1001-RM3000	47	27.0
RM3001-RM5000	15	8.6
Above RM5001	8	4.6

Results to determine the influence of customer perception, attitude and acceptance towatds WTP for food were analysed as shown in Table 2. In terms of customer perception, customer attitude and customer acceptance, it was found to be significant with willingness to pay and consumer acceptance at (β=0.41, t=5.55, p=0.01); attitude at (β=0.33, t=4.39, p=0.00) and perception at (β=0.16, t=2.74, p=0.00) respectively. R^2 indicated 66.5% of variation in WTP that can be explained by the three independent variables namely customer perception, customer attitude and customer acceptance. Adjusted R^2 indicated 66.9% of variation.

Table 2: Regression Analysis

Independent variables	Standardized Coefficients Beta (β)	Critical value (t)	(p)
Customer perception	0.16	2.76	0.01**
Customer attitude	0.33	4.39	0.00**
Customer acceptance	0.41	5.55	0.00**
F value	112.24		
R^2	0.665		
Adjusted R^2	0.659		

** P<0.05Dependant Variable: Willingness to Pay

6. Discussion and conclusion

In terms of perception, food appearance, hygiene, food safety and risk as well as pricing affected WTP for food from food trucks. Results were similar to another study by Harith et al. (2014) and further supported by Ajobo (2012). Food truck operators must adhere to the quality of food, cleanliness, consistency, manner and hospitality. Similarly Lee et al. (2012) also found cleanliness, safety and food hygiene affected WTP. Findings is corroborated by Choi et al. (2013) that perceived risks in terms of hygiene, environmental and health risks negatively affected consumer attitude toward street food. Authorities need to plan food truck management just like night market management as practiced in countries like Taiwan. The hygiene knowledge and practices of food vendors to ensure hygienic preparation of street foods is important to get vendors to obtain food-related certificates to increase knowledge of and techniques for food preparation as well as to improve the confidence of consumers towards street food (Sun et al., 2012).

For customer attitude, food variety is important for preferences of food truck similar to findings by Carvalho (2013). Further support on similar findings was found in Choi et al. (2013) where perceived benefits of street food in terms of convenience and value benefits positively affected attitude. Consumer attitude toward street food in terms of trustworthiness, liking and satisfactory food from vendors affected behaviorial intention to purchase.

For customer acceptance, product knowledge and innovativeness influenced WTP. Food truck operators should emphasize on food innovation which may require food branding and new product development strategies to sustain business and the use of social media networking. A strong marketing presence in terms of not only great recipe but establish a strong food truck brand increases public recognition. Strategies include setting up a food truck website and engaging in social media. They can capitalize on innovation in terms of using social media networking as a promotion channel. However using social media networking by simply posting via Twitter and Facebook to announce upcoming food truck stops is insufficient. They need engage with competitors and potential food truck customers via social conversation is vital for success (Myrick, 2017). Networking with other local agents to check on upcoming entertainment and other events nearby to get exposure to new customers in new strategic locations as well as teaming up with other local food trucks on food variety are ways to gain customer acceptance in food truck marketing (Food truck marketing, 2017).

Several strategies are recommended to advocate food truck business into an legal and organized sector. In terms of policy making, local authorities need to be proactive to draw up new guidelines and regulations for food truck operators. Currently there are no regulations for food truck operators throughout Malaysia which comes between laws for static and mobile hawkers. To date local

authorities in Selangor have drawn up 13 laws to facilitate them. Hence this is good initiative and other local auhtorities should follow suit. Other policies such as ease of operation permit and vehicle certification should be provided as well as approval to hold food truck festivals. Food truck carnivals remain as a major way to promote culture and even support tourism, hence collaboration with tourism authorities and local councils is vital. It was reported that food truck business could boost tourism in the food-tourism subsector, which is gaining popularity among local and foregin torusits in Malaysia (Food trucks to serve tourism, 2016, December 27). However it must be managed properly.

Mobile food truck business in Malaysia has great potential to develop into an organized and lucrative sector for entrepreneurship and even alternative employment during economic slowdown. It has low entry and exit barriers and generally customers are not price sensitive towards such food. It has become another innovative form of omnichannel food distribution that fits the lifestyle of Gen Y who form the major target group. Together with strong social media influence and emerging Internet of Things (IoT) in place, mobile food truck business is set to grow remarkably. Future studies should focus on how social media as an advocacy tool and association model can help futher develop and enhance mobile food truck business. Despite its burgeoning popularity in Malaysia in recent years, however food truck operators face the main formidable challenge being the lack of licensing framework governing mobile food trucks. Future studies should also be geared to formulating regulations in cities.

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