

Factors Affecting Customer's Behavioral Intention to Use Online Food Delivery Services (OFDS)

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ABSTRACT

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This study is conducted to investigate the factors determining the behavioral intention of using online food delivery services (OFDS) after the COVID-19 pandemic in Malaysia (perceived ease of use, price value, performance expectancy, and food safety risk perception). This study aims to determine the future intent to use online food delivery services after the COVID-19 pandemic in Malaysia. A total of 450 people involved during the online survey via the Google Form platform. Descriptive analysis and Pearson correlation analysis are used in this study. For the research findings, this study concludes that the perceived ease of use, price value, performance expectancy, and food safety risk perception have a significant relationship towards behavioral intention to use OFDS. All the result findings are being shown in this report.

Contribution/Originality: The paper's primary contribution is finding that the customers will continue to order their food and beverages from OFDS because they value the convenience of online buying during the COVID-19 pandemic. The customers will continue to choose OFDS which will then contribute to the long-term trend of OFDS in future.

1. Introduction

The advantages of online food delivery services (OFDS) were noticeable during the global 2020 COVID-19 outbreak. The online food delivery service has enabled consumer

to have prepared meals and allowed food providers to keep operating (Li et al., 2020). The online food delivery services are the main platform in this digital modern era. Since this platform is frequently used in the market, many people tend to rely on this platform to buy food and beverages. As a result, hotels, restaurants, and food delivery services can immediately begin their operations. The operations of this industry help a lot in terms of the economy and sustainability of this platform. Restaurants and related businesses, mostly fast-food restaurants, are willing to provide meals. Customers, on the other hand, are wary of placing purchases during the COVID-19 pandemic, despite the fact that several OFDS have required their delivery partners to wear personal protective equipment and encouraged customers to pay online to assure contactless delivery (Bhatia et al., 2021). The purpose of this research is to identify the factors determining the behavioral intention of using online food delivery services after the COVID-19 pandemic in Malaysia. This research also determines the future intent to use online food delivery services after the COVID-19 pandemic in Malaysia.

Almost all industries experienced loss in business activity, and it has been recorded as the largest drop in the numbers of active business owners (Fairlie, 2020). Small restaurants and businesses are impacted by the COVID-19 pandemic, both during and after the outbreak. Because of the COVID-19 pandemic, small restaurants and businesses have temporarily closed until a permanent shutdown is unavoidable. Various preventive measures have been implemented in various nations during the COVID-19 pandemic. Wearing masks, keeping social distance, and self-isolation are some of the methods used to avoid direct interaction between individuals. These precautions were taken to limit the spread of the COVID-19 pandemic to the greatest extent feasible. Because of this, most restaurants have turned to online food delivery services (OFDS) to maintain social distancing and limit contact points (Norris, 2021).

Many consumers' dietary habits were altered because of the COVID-19 pandemic, resulting in a greater need for OFDS. Therefore, OFDS may be viewed as a critical need in the restaurant and foodservice industries in the current circumstances. We can see how the Internet and mobile technology, OFDS have altered the experiences of OFDS in the food and beverages industry, as well as third-party logistics Chai and Yat (2019). The availability of cell phones in Malaysia has facilitated the expansion of OFDS. Foodpanda, followed by DeliveryEat, and Grabfood was Malaysia's first OFDS. During the COVID-19 pandemic, people increasingly prefer to spend their leisure time at home. Mostly, people nowadays work from home and do not have much time to cook. They are unable to accomplish work responsibilities due to a shortage of time. As a result, they prefer to order from OFDS. According to Alalwan (2020), users can access and order their food from a varied selection of restaurants anytime and anywhere convenient to them. Thus, this study aims to investigate the important factors (perceived ease of use, social influence, price value, performance expectancy, and food safety risk perception) that affect the customers' behavioral intention to use OFDS in Malaysia after the COVID-19 pandemic.

2. Literature Review

The online food delivery service (OFDS) is an emerging new wave in Malaysia's food and beverage business. Online food delivery is the new eating out, replacing take-out and dining out. There are various food delivery services in Malaysia, with many of them offering online food delivery services. The food delivery market size is targeted to increase to an annual revenue of USD956 million by 2022 and make it one of the fastest

growing sectors in the market (Daleen, 2018). FoodPanda, the first delivery firm to launch aggressively in Malaysia, is one of the companies. Other players in the market include GrabFood, Uber Eats, Honestbee, FoodTime, Dahmakan, and Shogun2U. The majority of these food delivery services are focused in urban areas like Kuala Lumpur, Klang Valley, Penang, and Johor Bahru. According to the report, the app-based food-delivery boom has made ordering meals in 2020 immeasurably easier, owing to the maturity of high internet penetration and mobile phone usage. The evolution of OFDS, according to Chai and Yat (2019), can be related to the changing character of urban clients. The evolution of OFDS may be ascribed to the changing character of metropolitan customers. These customers employ food delivery services for a number of reasons, but the most prevalent appears to be the desire for quick and easy meals during or after a long day at work. The various food delivery services that are readily available relieve customers of the burden of thinking about and planning meals, regardless of whether the customer is preparing the meal himself, going to a restaurant and dining in, or going to a restaurant and buying food to bring back to the office or home.

2.1. Behavioral Intention for Online Food Delivery Services (OFDS)

Customers are increasingly interested in learning more about the online food delivery services and attempting to use it, owing to the growing popularity of OFDS. This is referred to as behavioral intention. According to Yeo et al. (2017), a person's attitude can be highly predictive of their desire to perform. According to the study, an individual's activity is determined by the criterion of behavior that he or she holds, and a favorable attitude will lead to the behavior of adopting the product or technology. Besides, behavioral intention is connected to customer experience. The better the experience, the more clients will be willing to use OFDS.

Customers who want to avoid social touch with others, for example, may have a high desire to adopt the online system if they are satisfied with the OFDS, especially if they have had a terrible encounter with frontline employees or sales professionals. People nowadays have realized that using OFDS is both straightforward and time-consuming. As a consequence, adopting technology is more profitable for internet users. In other words, the simplicity with which technology can be implemented will make it customers' preferred payment choice.

2.2. Perceived Ease of Use (PEOU)

The degree to which respondents feel they can utilize a certain technology with minimal effort may be viewed as PEOU. PEOU is a respondents' capacity to experiment with novel technology and quickly evaluate its merits. Indeed, there are several reasons to use OFDS, whether it's just purchasing goods online to avoid the social contact that comes with visiting the supermarket or corner store, or having your favorite cuisine brought up right at your door. Customers are hesitant to purchase online if the PEOU is delayed by impediments such as lengthy download times of Internet merchant websites and badly designed websites (Ramayah & Ignatius, 2005). As a result, it is critical that the design of OFDS websites be clear and understood in order to improve the customer experience and make placing an order simple.

2.3. Price Value

The desire for food convenience has risen after the COVID-19 pandemic, owing to both needs. For example, shelter-in-place orders and the fact that so many businesses are jumping on the food delivery services bandwagon. Restaurants either use third-party food delivery services or create their own online ordering system to provide this service to customers. In a purchase agreement, price refers to the monetary worth that a person must pay in return for a service or a product (Nagle & Holden, 1995). Occasionally, various websites or applications may offer various discounts, such as price cuts on the meal that customers purchased (Yeo et al., 2017). By subscribing to OFDS, university students may take advantage of extra promotion discounts and save even more money on meals. Of course, not every restaurant has the same online ordering mechanism. While some businesses utilize third-party applications for both takeout and delivery (because of large volume and expenses), others employ an in-house or direct online ordering system (potentially lower volume but low or no fees). You are missing out on a growing revenue stream that shows no signs of slowing down if you do not do both. The first step is to research your alternatives and choose what would work best for your company. Delivery may help you reach new customers beyond the regulars, locals, and other customers from the nearby areas, which is especially crucial when restaurants are running at reduced capacity or people are still hesitant to eat out. Furthermore, it is especially vital in metropolitan areas where potential customers may not have access to a car. Third-party programs, which also function as marketing platforms, can assist to expand this reach such as FoodPanda, Grabfood and many more.

2.4. Performance Expectancy

A consumer is willing to repurchase when the perceived performance meets the initial expectations (Ramos, 2021). Customers' typical purchasing experiences have changed in a mobile shopping environment. It is a common technique for modern customers to look for and pay for goods and services via mobile platforms (Hung et al., 2012). Experts have indicated that the quantity of mobile data is expanding significantly every month. Despite the significant penetration of mobile commerce transactions, there would be a need to identify the phenomena by which customers participate in mobile commerce activities. Previous studies have focused on technology variables and how these elements impact customers' behavioral intentions, with few studies focusing on personal traits. In addition, Malaysians are moving to more digitalize and all the platforms especially for the OFDS are using the specific apps in the smartphone. Due to this reason, people expect that this technology will help them to use it for the purpose of decreasing the chances of social interaction.

2.5. Food Safety Risk Perception

Customers who eat out frequently lack the tools and abilities necessary to assess genuine food safety. Instead, customers assess a restaurant's cleanliness and food safety based on a variety of factors, such as restaurant hygiene and personnel' safety procedures, such as wearing clean uniforms and hygienic gloves when handling food (Liu & Lee, 2018). FSRP is critical in the decision-making process of customers purchasing food (Frewer et al., 2007). Customers with a higher FSRP, for example, are more likely to buy and pay a premium for safer products or services. Depending on the selling site, customers may have a varying FSRP. Food served through OFDS can be contaminated due to the addition of delivery operations to the typical restaurant business model, posing a difficulty for

OFDS to maintain food safety and hygiene. Additional considerations with OFDS include temperature control, packaging, and the use of proper food containers during the delivery process (Maimaiti et al., 2018).

3. Methodology

This study focused on the factors determining the behavioral intention of using OFDS after COVID-19 in Malaysia. Thus, the unit analysis of this study was focused on people who had installed and used OFDS in Malaysia. The data was collected through the online survey to evaluate the behavioral intention towards OFDS among Malaysians after the COVID-19 pandemic. Thus, the link of the Google Form was disseminated through social media platforms such as Instagram, Twitter, Facebook, and Telegram in order to reach wider participants. Due to the COVID-19 pandemic situation, this survey was performed online to make it easier for the researcher to gather the information and to keep social distancing.

4. Result

4.1. Descriptive Analysis

Table 1 provides the results which describes the level of mean for five variables which are perceived ease of use, price value, performance expectancy, and food safety risk perception (independent variable) towards (dependent variable) which is behavioral intention to use.

Table 1: Descriptive Analysis

Item	Mean	Std Dev
Perceived ease of use		
I find it easy and simple to order foods/beverages from online food delivery service.	4.40	0.76
I find that online food delivery service has informative button to help me.	4.23	0.78
I can complete a transaction quickly.	4.48	0.69
Price value		
Delivery fee is low and most of the times it is free.	2.96	1.24
Foods/Beverages on online food delivery service are reasonably priced.	3.27	1.10
I can get discount coupons and other promotion benefits using online food delivery service.	3.83	0.98
Performance Expectancy		
I find online food delivery service is useful in my daily life.	4.12	0.84
Using online food delivery service is very useful for ordering foods/beverages wherever I am.	4.21	0.83
Using online food delivery service allows me to order food/beverages more efficiently.	4.08	0.87
Using online food delivery service would enhance the effectiveness of my foods/beverages ordering.	4.02	2.49
Food Safety Risk Perception		

It is likely for online food delivery service customers to get food poisoning because of the way food is delivered through an online food delivery service.	3.22	1.15
Contamination of food by being delivered by an online food delivery service is a serious food safety problem.	3.62	1.11
Food delivered by an online food delivery service is likely to have germs that could make customers sick.	3.29	2.22

Behavioral Intention of Using Online Food Delivery Services

I intend to use an online food delivery service instead of making a conventional phone.	4.16	0.84
I will recommend to others to use online food delivery service.	4.20	0.80
Online food delivery service would be among of my favourite technologies.	4.18	2.07
I will continuously use the online food delivery service in the future.	4.14	0.88
I intend to use online food delivery service continuingly after COVID-19.	4.10	0.89

4.1.1. Perceived ease of use.

Based on the analysis, we can conclude that respondents were strongly satisfied with the statement of “I can complete a transaction quickly”. This can be proven when the highest mean value is compared to others (4.48). For question “I find that online food delivery service has an informative button to help me” got the lowest means value which is 4.23.

4.1.2. Price value

Means and SD for price value are presented in [Table 1](#). Based on the result, we can conclude that respondents were strongly satisfied with the statement “I can get discount coupons and other promotion benefits using online food delivery service”. This can be proven when the highest mean value is compared to others (3.83). For question “Delivery fee is low and most of the times it is free” got the lowest means value (2.96).

4.1.3. Performance expectancy

Means and SD for performance expectancy are presented in [Table 1](#). Based on the result, we can conclude that respondents were strongly satisfied with the statement “Using online food delivery service is very useful for ordering foods/beverages wherever I am”. This can be proven when the highest mean value is compared to others (4.21). For question “Using online food delivery service would enhance the effectiveness of my foods/beverages ordering” got the lowest means value (4.02).

4.1.4. Food safety risk perception

Means and SD for food safety risk perception are presented in the [Table 1](#). Based on the result, we can conclude that respondents were strongly satisfied with the statement “Contamination of food by being delivered by an online food delivery service is a serious food safety problem”. This can be proven when the highest mean value is compared to others (3.62). For question “It is likely for online food delivery service customers to get food poisoning because of the way food is delivered through an online food delivery service” got the lowest means value (3.22).

4.1.5. Behavioral intention

Means and SD for the behavioral intention of using online food delivery services are presented in [Table 1](#). Based on the result, we can conclude that respondents were strongly satisfied with the statement of “I will recommend to others to use online food delivery service”. This can be proven when the highest mean value is compared to others (4.20). For question “I intend to use online food delivery service continuingly after COVID-19” got the lowest means value (4.10).

4.2. Pearson Correlation Coefficient Analysis

Pearson's correlation coefficient is used to judge the overall correlation degree of data. The five factors affecting customer's behavioral intention to use online food delivery services (OFDS) in Malaysia which is perceived ease of use (PEOU), price value, performance expectancy and food safety risk perception were all tested to find the significant.

Based on [Table 2](#), it shows that there is a significant positive relationship between perceived ease of use and behavioral intention to use OFDS ($r = 0.501$, $p = 0.00$).

Table 2: Correlation between perceived ease of use and behavioral intention to use OFDS

	Behavioral Intention	Perceived Ease of Use
<i>Behavioral Intention</i>		
Pearson Correlation	1	0.501
Sig. (2-tailed)		0.000
N	450	450
<i>Perceived Ease of Use</i>		
Pearson Correlation	0.501	1
Sig. (2-tailed)	0.000	
N	450	450

Based on [Table 3](#), it shows that there is a significant moderate positive relationship between price value and behavioral intention to use OFDS ($r = 0.378$, $p = 0.00$).

Table 3: Correlation between price value and behavioral intention to use OFDS

	Behavioral Intention	Price Value
<i>Behavioral Intention</i>		
Pearson Correlation	1	0.378
Sig. (2-tailed)		0.000
N	450	450
<i>Price Value</i>		
Pearson Correlation	0.378	1
Sig. (2-tailed)	0.000	
N	450	450

Based on Table 4, it shows that there is a significant moderate positive relationship between performance expectancy and behavioral intention to use OFDS ($r = 0.445$, $p = 0.00$).

Table 4: Correlation between performance expectancy and behavioral intention to use OFDS

	Behavioral Intention	Performance Expectancy
<i>Behavioral Intention</i>		
Pearson Correlation	1	0.445
Sig. (2-tailed)		0.000
N	450	450
<i>Performance Expectancy</i>		
Pearson Correlation	0.445	1
Sig. (2-tailed)	0.000	
N	450	450

Based on Table 5, it shows that there is a significant positive relationship between food safety risk perception and behavioral intention to use OFDS ($r = 0.500$, $p = 0.00$).

Table 5: Correlation between food safety risk perception and behavioral intention to use OFDS

	Behavioral Intention	Food Safety Risk Perception
<i>Behavioral Intention</i>		
Pearson Correlation	1	0.500
Sig. (2-tailed)		0.000
N	450	450
<i>Food Safety Risk Perception</i>		
Pearson Correlation	0.500	1
Sig. (2-tailed)	0.000	
N	450	450

5. Discussion

The analysis implied that the behavioral intention of using OFDS after the COVID-19 pandemic is influenced by perceived ease of use, price value, performance expectancy, and food safety risk perception. The factors determining the behavioral intention of using online food delivery services after the COVID-19 pandemic in Malaysia which are perceived ease of use, social influence, price value, performance expectancy, and food safety risk perception. In addition, this study aims to determine the future intent to use online food delivery services after the COVID-19 pandemic in Malaysia. From this study, the research findings obviously showed the positive results of respondents' behavioral intention to use OFDS after the COVID-19 pandemic.

6. Conclusion

In conclusion, customers will continue to order their food and beverages from OFDS because they value the convenience of online buying during the COVID-19 pandemic. Aside from that, the customers continue to choose OFDS which is actually a long-term trend that is likely to persist during the post-COVID-19 pandemic in the future. To take advantage of this, the industry players must seize the great opportunity to connect with customers through engaging social media advertisements and adaptable marketing strategies. Finally, the current research was able to give a comprehensive result to prove that behavioral intention to use OFDS was reasonably popular in Malaysia after the COVID-19 pandemic.

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Conflict of Interests

The authors declare no conflict of interest in this study.

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