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# FOOD DELIVERY SERVICE APPLICATION DURING PANDEMIC COVID-19

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# ABSTRACT

Online food deliveries are third-party tools that facilitate for online purchase and delivery, present an alternate way of ordering that looks to be gaining traction. This study will examine consumer acceptance behaviour towards food delivery application (FDA) during pandemic COVID-19 and the factor that lead them to accept or reject of using FDA. This study also will identify food delivery service applications that usually consumer use. This study will focus on Northern Malaysia, Kulim area which is covering rural and urban area. In order to achieve this study, researcher has use qualitative method which is data was collected by semi structured interview. The result shows that, there are four factors that is contribute to acceptance and rejection towards online food delivery application which is time, quality, safety, and price. Furthermore, there are four respondents that accept and one respondent reject of using FDA. The most favourite application that consumer use is Food Panda. The FDA helps many consumers during this pandemic season. Therefore, a variety of applications and service improvements are needed to provide customer satisfaction.

**Keywords:** Consumer behaviour, food delivery, food delivery application, service innovation, pandemic Covid-19.

# **INTRODUCTION**

The food industry as a whole is made up of various different sorts of businesses that produce a wide variety of foods. Food production, preparation, preservation, manufacturing, distribution, selling, and banquets are all covered (Sadiku, Musa, & Ashaolu, 2019). Until today, the food industry is still innovating, especially in terms of technology because there is always new technology and the food industry is not left behind in applying these innovations in ensuring the food industry is always in line with world progress. Furthermore, the demands and desires of clients change throughout time. Customers' demands and desires tend to alter more frequently, both in terms of design, quality, and delivery procedure (Wedowati, Singgih, & Gunarta, 2018). Food prepared outside the home is usually served warm and ready meals, and it has become a substantial source of nutritional intake (Popkin, Adair, & Ng, 2012). Changes in human needs and technological advances have now changed food preparation, namely the existence of online food delivery where food can be ordered and delivered to customers in a warm and ready to eat. Online food deliveries (OFD) are third-party tools that facilitate for online purchase and delivery, present an alternate way of ordering that looks to be gaining traction (Maimaiti, Zhao, Jia, Ru, & Zhu, 2018).

Online food delivery (OFD) is a burgeoning new trend in Malaysia's food and beverage industry (Hooi, Leong, & Yee, 2021). Online food ordering is the new eating out, and it is not just for takeaways and restaurants. In Malaysia, there are several food delivery companies, many of which provide food delivery apps (Hooi, Leong, & Yee, 2021). One of the companies participating is FoodPanda, the first online food delivery company to start vigorously in Malaysia (in 2012) (Pang, 2017). Ubereat, GrabFood, Tapau, Dahmakan, Delivereat, ShopeeFood, and Airasia food are among the others operating in the industry and also aggressive in serving food delivery service to consumer (Hooi, Leong, & Yee, 2021). Online food delivery is increasingly used since the world was attacked by the Covid -19 epidemic. The recent worldwide pandemic crisis of the coronavirus epidemic has impacted most companies. The nature of traditional business has changed dramatically as a result of the COVID-19 epidemic, which has impacted all areas of the economy. Many restaurants have turned their attention to delivery and takeout, which have become the primary drivers of income and sales growth. Due to the necessity of staying at home or the desire to remain at home, food delivery services are the chosen means of obtaining food (Marcellus, 2020).

However, there are several issues that have been identified in implementing the use of OFD. In the very new and rising internet retailing market, business owners have had problems maintaining service quality, and despite several attempts to identify critical success characteristics for retaining high service providers, no breakthrough achievement has been achieved (Ramus, 2005). Due to logistical challenges, many popular online grocery or meal delivery services have been unable to reach out to their clients (Lawrence, Ring, & Douglas, 2001). According to earlier study, the primary issues that these internet firms face include late deliveries, fewer engagement with clients, delayed response, an overabundance of orders, and so on (Scarborough & Lindquist, 2002).

Although the online delivery service business is becoming extremely important, with new competitors joining the group on a daily basis, the issue of customer acceptance of online food delivery should be investigated further. From the previous study, there is a lack of related to the factors of consumer to use and not use FDA during pandemic COVID-19. In this study, it will examine consumer acceptance behaviour towards FDA during pandemic COVID-19 and the factor that lead them to use and not use the food delivery application.

### LITERATURE REVIEW

#### Food Delivery Service

Food delivery is a huge business in not only in Asian countries but around the world. Although the food industry is worth hundreds of billions, delivery is just a small part of it (Khandasivam, 2017). This opened up a lot of possibilities for higher growth. By 2022, the food delivery company's annual revenues are estimated to reach USD 956,000,000, putting it among the quickest categories in the food industry (Chai & Yat, 2019). As people's lives get hectic day after day, they have little time to go out to eat or make a homemade meal, necessitating the use of online food ordering. According to Chen (2019), innovative delivery techniques are being used by organizations seeking to offer profitable services and goods as a new point of difference and to provide better value to consumers (Chen, 2019). A client's whole experience with a service business, such as service quality, leads to customer satisfaction (Sureshchandar, Rajendran, & Anantharaman, 2002). Food delivery services are provided by two types of businesses. The first type is retailers themselves (restaurant-to-consumer) which mean Pizza Hut, McDonald's, Domino's Pizza, Kentucky Fried Chicken (KFC), and this retailer concept is mainly use by other fast-food establishments (Yeo, Goh, & Rezaei, 2017). The second system consists of a number of platform-to-consumer who give delivery services to a number of different food outlets (Yeo, Goh, & Rezaei, 2017) and it involving Ubereats, Grabfood, Food Panda, GrubHub and more. Both methods have their pros and cons but customers are more likely to use platform-to-customer service because there are many menus to choose from various restaurants and can be ordered at once.

## **Global Growth of Online Food Delivery**

The rise of online food delivery is a worldwide trend, with at believed to have a significant system for food delivery in several countries (Statista, 2020). China has the largest percentage of the online food delivery business, followed by the United States, with India and Brazil showing substantial growth displaying strong (> 9% compound annual growth rate (CAGR) development. Youngsters all around the world are rapidly having to accept and appreciating online food delivery, and China is at the forefront of this movement. According to a 2019 survey of 1000 Nanjing university students, at minimum 71.45% of them could have used online food delivery for at least 24 months, and 85.1% had used it more often than that (Yin & Hu, 2019). Chinese undergrad student (stay in campus) prefer online food delivery because it takes less time (50.35% of 141 students in Hubei, China), and it beneficial (44.35% of 124 students in Jiangxi, China), and can provide options that are either healthy and nutritious or simply different from school cafeteria foods (39.52% of 124 students) (36.17% of 141 students) (Li & Zhang, 2018).

### **Online Food Delivery Service during COVID-19 Pandemic**

The coronavirus has rebuilt the economic environment, requiring significant adaptations from customers, as well as the development of new behaviours during lockdowns and quarantines (Nizar & Abidin, 2021). Concerns about the epidemic have increased customer demand for better hygienic, cleaner, and safer products (Nizar & Abidin, 2021). Consumers are migrating online to obtain their products and services as this transformation continues (Bernama, 2020). Due to the large number of people they meet on a daily basis, food deliverers may be among those most at risk of exposure to virus (Nizar & Abidin, 2021). In Malaysia, the Ministry of Transport has classified food delivery services as hailing and issued guidelines to prevent the spread of COVID-19 during the Controlled Movement Order, which is set to begin in April 2020 (Nizar & Abidin, 2021).As a result, by giving the appropriate tools to food delivery riders, they can reduce the risk of infection (Nizar & Abidin, 2021). This will help not only the riders, but the entire community in terms of limiting the virus's spread. Personal cleanliness and attention to rules and preventative measures go a long way in paving the way for a more optimistic future (Nizar & Abidin, 2021).

# Challenges Food Delivery Service during Pandemic COVID-19

Due to safety laws prohibiting direct contact and the practice of social distancing to reduce the danger of transmission, the COVID-19 pandemic had a negative impact on the catering business. The pandemic, on the other hand, altered many consumers' dining patterns, increasing the need for online food delivery services. During the COVID-19 pandemic phase in China, the number of clients utilizing food delivery application service increased by 71% between February and March 2020 (Muangmee, Kot, Meekaewkunchorn, Kassakorn, & Khalid, 2021). Many FDA respondents saw the services as a method to minimize the number of excursions outside and the danger of COVID-19 illness transmission (Kuzmenko, 2020). Because of government lockdowns, businesses have been forced to close or consumers may not want to attend restaurants owing to health concerns, sit-down traffic at restaurants has decreased by 83 percent globally compared to the previous year (Ivanova, 2020). The COVID-19 epidemic has had far-reaching and severe effects on all sectors, including the food industry (Richards & Rickard, 2020). The restaurant industry is being impacted across the world as a result of COVID-19's catastrophic consequences (Meyer, 2020).

## Food Delivery Application

Due to economic development, the need for quick and fast delivery meals is growing, as is the frequency of dining out (Kim, 2011). The convenience and high usage rate of smartphones due to the emergence of several types of apps as well as delivery apps also affect. People really like to use convenient order and delivery platform as it make their daily schedule more efficient and that is the big motives of they like to use online platforms (Goebel, Moeller, & Pibernik, 2012). Consumers may now get food through a variety of methods, including visiting to a real shop or ordering through a website (Hooi, Leong, & Yee, 2021). Just Eat (including subsidiaries) and Uber Eats were accessible in 13 countries in 2020, Deliveroo was available in 12 countries, and Grubhub was available in numerous locations across the United States (Keeble, et al., 2020).

The most popular app among millennial is the food delivery service. They often use smartphone and because of busy doing their work (urban area), this is one alternatives they use to cut down time spending on buying food. The application will help the consumers to find the right restaurant around them or any dish they want to order, place their orders and make payment easily as long as the users have good internet connection (Biswas, 2019). In Korea, dependability, responsiveness, promptness, and food quality were more essential in promoting FDA consumer satisfaction than cost effectiveness, promptness, responsiveness, and food quality, but in China, cost effectiveness, promptness, responsiveness, and food quality were more essential (Lee, Sung, & Jeon, 2019). Obviously, the consumer behaviour research on the FDA and OFD is still in its infancy, and poorly demonstrated in the literature (Correa, et al., 2019). More study is needed to better understand the obstacles to and enhancers of success for FDAs, which are quickly become a regular aspect of life.

## **RESEARCH METHODOLOGY**

In this study, researcher will conduct qualitative method which is using in-depth interviews method in order to achieve objectives of study. In-depth interviews are unstructured, personal conversations with the goal of eliciting respondents' emotions, sentiments, and opinions about a certain study topic. The researcher had to use this method since the situation when conducting the study was in the Movement Control Order (MCO) period where the researcher found it difficult to make a face to face meeting. Therefore, the interviews were conducted online. Before the interview was conducted, the researcher prepared the interview protocol as a guide to facilitate researcher and respondents during the interview session.

The selection of respondents for this study consists of users of food delivery service applications who are in the age range between 20 until 40 years old. Age range selection was made because based on past studies, they are the group that mostly uses the application to order food. Each respondent was interviewed privately to avoid bias in data collection. Personal interviews offer the benefit of involving personal and direct interaction between interviewers and respondents, as well as eliminating non-response rates; nevertheless, interviewers must have learned the required skills to conduct a successful interview.

### DATA ANALYSIS

The respondents of this study were five users of food delivery application in Kulim, Kedah. Table 4.1 illustrates the background of the respondents which included gender, age, and status whether there are student or worker. Based on the table, respondents consisted of one male and four females aged between 20 to 26 years. Two respondents are still studying while three others have been working. For residential area, two respondents were from rural areas while three respondents were from urban areas.

Table 1

The profile of respondent

Respondent	Gender	Age	Status	Area
1	Female	23	University Student	Rural
2	Male	20	College Student	Urban
3	Female	25	Work	Urban
4	Female	23	Work	Rural
5	Female	26	Work	Urban

### Acceptance or Rejection of Using Online Food Delivery

In general, all the respondents gave good feedback on online food delivery. They said that the online food delivery service in the Kulim area is easy to use. They also stated that the number of food delivery riders is increasing compared to the previous year. One of the respondent said that the number of food delivery riders increased due to the factor of restaurant involvement towards more online sales compare than before. All respondents had used food delivery before and during the covid-19 pandemic season. It can be described that the users of the Kulim area have started using food delivery since this industry started operating in the Kulim area. Four of the respondents have used the restaurant-to-customer delivery service where the restaurant has provided its own delivery service to customers. Even so, restaurants that already have riders also use the services of middle companies to sell their products. This is a customer who has never or is not skilled to use the direct restaurant application or they have a coupon when using the services of a middle company.

Respondent	Result	Online Food Delivery Use Period (year)
1	Accept	4
2	Accept	5
3	Accept	4
4	Accept	5
5	Reject	Less than 1

Table 2
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Acceptance and rejection of online food delivery user

Respondent 1 accepted the use of online food delivery because for her, online food delivery helped a lot to facilitate her affairs as a student to get food. While studying online at home, she doesn't have much time to prepare her own meals. Apart from respondent 1, respondent 2 also accepted the use of online food delivery. Respondent 2 is a man who is still student and has been using online food delivery for five years which is since 2018 and still uses it today. He prefers to use online food delivery if there are coupons or discounts from the online food delivery application or obtained from a direct restaurant when buying by walk in. Respondent 3 also belongs to the group that accepts the use of online food delivery. She more often uses online food delivery when at work starting from 2019. Her job which involves a long period of time from morning to night causes her to need an adequate supply of food. So to make it easier for her from to go out to a far away and crowded place, she made food orders through the online food delivery application. For respondent 4 who also received the use of online food delivery since 2018. She is an employee in the same place as respondent 3 but her used at home and at work is same. In addition, its use during the COVID-19 pandemic is the same as before the outbreak of the COVID-19 virus. She consistently uses online food delivery because she still buys food on a walk in basis and will sometimes use online food delivery. Lastly, respondent 5 also used online food delivery but she refused to use the service. This is because she uses online food delivery between 2019 and 2020, that is before and during the COVID-19 season and she found that there is a difference in terms of price. The increase in the price of the delivery charge and the need for a long time to redeem the coupon caused her to stop using the service.

## Influencing Factors for Online Food Delivery

An online food delivery user stated that they like to use food delivery because it has many benefits such as saving time. Respondent 1 stated that as a student, she has limited time to go out and dine in at the restaurant because of their busy schedule. Respondent 2 also supported that the time-saving factor is the main factor he likes to use online food delivery. He is also a student who is always busy with assignments. Next, respondents 3 and 4 also stated that they often use food delivery because security is more guaranteed and they always use promotions coupon that offered from the application. Both respondents are employees at one of the Kulim shopping malls and they mostly use online food delivery during working time.

The respondent who rejected the use of online food delivery was only one and that was respondent 5. In the beginning, she was happy to use online food delivery until she experienced several problems such as quality and quantity problems that were not well-taken care of by the restaurant. She once received food she ordered in insufficient quantity and the taste of the food was less palatable. Due to the problem, she had to stop ordering using food delivery applications as it would be unsatisfactory to pay the price of expensive low quality food. Although there are many benefits from using this food

delivery application, she refuses to use online food delivery anymore unless if have an emergency that may lead her cannot get food by herself.

### Frequency of Use Online Food Delivery

The results of the interviews conducted with the five respondents there are three situations to evaluate the level of frequency of use of online food delivery. The three situations are before pandemic Covid-19, during pandemic Covid-19, and lastly for both situations.

### Table 3

Frequency of Responden	t Using Food	Delivery Based	on Given Situation.

Situation	Respondent	Frequent
Before Pandemic COVID-19	3	High
During Pandemic COVID-19	1,2, & 5	High
Before and During Pandemic COVID-19	4	Low

Table 3 describes the frequency of consumers of online food delivery before and during the Covid-19 pandemic. Overall showed a majority of respondents used online food delivery during the Covid-19 pandemic season than before Covid-19. This situation happens because there were more online food delivery riders around the Kulim area than before. The increase in the number of riders and stalls using online food delivery services caused many to have more options to use online food delivery than before. The new norm that caused the majority of the community to stay at home during the COVID-19 pandemic caused their turn to choose to use online food delivery services.

### Food Delivery Applications That Are Often Used

In Kulim there are various types of online food delivery that operate but the food delivery application that consumer use most often is Food Panda and followed by Grab Food and restaurant-customer delivery such as Pizza Hut, MC Donald, and Domino's Pizza. All five respondents stated that they use Food Panda more often and also have respondent that only use the Food Panda application while using online food delivery. This is because Food Panda is the first company to start an online food delivery service of platform-to-customer in Kulim and the number of riders increasing from time to time has caused many users to use the application. Online food delivery received positive feedback from users even though only one application that respondents often use. Food Panda gives a very good performance compared to other applications. Therefore, it gives awareness to other online food delivery companies to actively give good service to all users.

#### **DISCUSSION AND CONCLUSION**

Based on the analysis, it shows that four out of five users of online food delivery (OFD) application accept and still use the service and most of them have used the OFD application for four to five years. This result shows that online food delivery in the Kulim area is well accepted. The second objective also have been answered which it shows four factors that influence them to make decisions, namely time, safety, price and quality factors. The last objective is related to identify online food delivery service applications that are often used. Based on the results of the interviews obtained, the five respondents gave the same answer that only one food delivery application that they used is Food Panda. For the future study, it can focus on demographic factors such as additions to marital status, family size, total income, and also the commitment they need to bear to know the factors that make

them able to use online food delivery application. Furthermore, in terms of methodological, future research can be done using a mix method where qualitative and quantitative methods are combined in one study. The data collected will be more accurate because there is percentage support from the quantitative method to the factors studied. As conclusion, customer acceptance of online food delivery depends on the management of the dealer, online food delivery platform, and also the delivery person. Companies that provide online food delivery services must always maintain the performance of their business and services so that customers do not hesitate to use their services.

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