

ONLINE TECHNOLOGY OF FOOD DELIVERY SERVICES APPS, OFDS ON PURCHASE INTENTION

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Abstract

Nowadays, technology in food delivery online services apps is excessively used among customers in Malaysia. Moreover, it has become more and more popular worldwide. Customers are getting comfortable using app services to order their meals via their smartphones. There are more than ten online food distribution service providers currently operating in Malaysia. What separates them, though, is the speed of services, the food prices, the delivery rates, the selections deals, the user interface (UI) of the apps, user-friendliness etc. Therefore, this research is carried out to examine the key factors affecting the intention of customers to use online food delivery services among customers in Malaysia. A valid response rate of 280 was obtained using an online survey instrument. The factor impacting the purchasing intention of using online technology of food delivery services apps is the primary focus of this research on the collection of information using a probability sample method. The research investigates the most significant factors that influence the customer purchase intention on using Online Food Delivery (OFD) services apps. There are 4 independent variables which we are focusing on; time factor, price factor, convenience motivation factor and food illustration factor. The analysis and results show that the convenience shopping motivation factor is the key driver where exogenous variables influence customers' purchase intention directly. Customers would anticipate the apps they wish to use to have a beneficial impact on them in terms of convenience and new added value that they may gain when choosing the chosen online food delivery services for themselves since any new technology made is to improve the life of all humankind. If the chosen applications could provide all of the desired experiences, users would use them more regularly, resulting in consistent repeat purchases, especially for those who use online food delivery services frequently. As a result, it is critical for operators and app developers to truly understand the customers and develop and update their apps to make them as

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convenient as possible so that customers remain loyal to them.

Keywords: Online food delivery; Convenience; Time factor; Price factor; Food illustration

Abstrak

Kini, teknologi aplikasi perkhidmatan penghantaran makanan dalam talian digunakan secara berlebihan dalam kalangan pelanggan di Malaysia. Lebih-lebih lagi, ia telah menjadi sangat popular di seluruh dunia. Pelanggan semakin selesa menggunakan perkhidmatan aplikasi untuk memesan makanan mereka melalui telefon pintar. Terdapat lebih daripada sepuluh penyedia perkhidmatan pengedaran makanan dalam talian yang kini beroperasi di Malaysia. Walau bagaimanapun, apa yang membezakannya ialah kelajuan perkhidmatan, harga makanan, kadar penghantaran, tawaran pilihan, antara muka pengguna (UI) aplikasi, kemesraan pengguna dan lain-lain. Oleh itu, penyelidikan ini dijalankan untuk mengkaji faktor utama menjejaskan niat pelanggan untuk menggunakan perkhidmatan penghantaran makanan dalam talian dalam kalangan pelanggan di Malaysia. Kadar tindak balas yang sah sebanyak 280 telah diperolehi menggunakan instrumen tinjauan dalam talian. Faktor yang mempengaruhi niat membeli menggunakan teknologi dalam talian aplikasi perkhidmatan penghantaran makanan adalah fokus utama penyelidikan ini terhadap pengumpulan maklumat menggunakan kaedah sampel kebarangkalian. Penyelidikan yang menyiasat faktor paling penting yang mempengaruhi niat membeli pelanggan menggunakan aplikasi perkhidmatan Penghantaran Makanan Dalam Talian (OFD). Terdapat 4 pembolehubah bebas yang difokuskan; faktor masa, faktor harga, faktor motivasi kemudahan dan faktor ilustrasi makanan. Analisis dan keputusan menunjukkan bahawa faktor motivasi membeli-belah kemudahan adalah pemacu utama di mana pembolehubah eksogen yang mempengaruhi niat membeli pelanggan secara langsung. Pelanggan akan menjangkakan aplikasi yang mereka ingin gunakan akan memberi impak yang baik kepada mereka dari segi kemudahan dan nilai tambah baharu yang mungkin mereka peroleh apabila memilih perkhidmatan penghantaran makanan dalam talian untuk diri mereka sendiri, kerana sebarang teknologi baharu yang dibuat adalah untuk meningkatkan kehidupan seluruh umat manusia. Jika aplikasi yang dipilih dapat memberikan semua pengalaman yang diinginkan, pengguna akan menggunakannya dengan lebih kerap, menghasilkan pembelian berulang yang konsisten, terutamanya bagi mereka yang kerap menggunakan perkhidmatan penghantaran makanan dalam talian. Akibatnya, adalah penting bagi pengendali dan pembangun aplikasi untuk benar-benar memahami pelanggan dan membangunkan serta mengemas kini 'apps' mereka untuk menjadikannya semudah mungkin supaya pelanggan kekal setia kepada mereka.

Kata kunci: Penghantaran makanan dalam talian, Kemudahan, Faktor masa, Faktor harga, Ilustrasi makanan.

Introduction

The use of online services for food delivery becoming popular. Transaction activities around us have changed from time to time, without us noticing it (Lau et al., 2019). Talking about eating out, for example, understanding or not, people often use online food delivery (OFD) services more than ever before. The market size for 2017 stands at USD 66.3 million for Malaysia as a whole and has increased dramatically since then. As of 2020, the size of the market is expected to reach USD 192 million by the end of this year. This a sign that the demand for food delivery is enormous and it keeps increasing day by day. However, what are the determining factors that make customers choose to purchase foods online? What makes the industries grow rapidly? Do Malaysians accept the additional costs incurred when they ordered food online and having it delivered to their doorsteps saves their money on travelling, petrol, parking etc. (Lisnawati et al., 2020) or is it the attractive foods displayed on the websites and applications does have an impact on consumers purchase intention the ordering foods online. In Malaysia, most restaurants still depend on 3rd party apps for delivering their food and products. This is due to the limitation of resources and expertise in the food company. Some due to logistics issues and the cost of starting up the system and the whole team of delivery business from back-ends, software, runners etc. are very expensive. Some established companies like Mcdonald's, KFC, and Pizza hut, there also use the services provided by these 3rd party platforms due to the limited runners they have and the logistics issues.

Literature review and hypotheses development

One of the most dominant and important factors in using OFD services is TF. In today's fast-paced life, many can't afford to go out for dinner or wait for dinner to be served in a restaurant (Euromonitor, 2015). So, instead, they make the food come to them. This is about taking as little time as possible to get a job completed, and it is a time-saving tool for them. Thanks to its convenience, ease and accuracy of orders, OFD services also tend to be beneficial to customers (Verma et al. 2009). Some of these food deliveries are catered for the household market, meaning they are distributed to households, at about 70 per cent of the order. That figure suggests that the food distribution target market relies primarily on household assets. The time saved by online shopping is a value earned by consumers. Online shopping is seen by a customer as useful as it can save time, reduce energy, and deliver extended store hours and efficient checkouts (Chiu et al., 2014). H1: Time factor (TF) has a positive relationship with purchase intention of using Online Food Delivery services among customers in Malaysia.

Consumers are searching for price cuts through price discounts, and they are curious about how much money they can save from these discounts (Darke et al. (1995). Lower rates stimulate an organization's profits, and higher discounts boost the market

value of the individual commodity (Madan and Suri, 2001). In addition to recognizing the consideration of monetary savings, the price-saving approach can also be viewed from the viewpoint of not incurring any extra costs for buying a product or using a service (Escobar-Rodríguez and Carvajal-Trujillo, 2014). Online users have the opportunity to compare prices by visiting multiple pages or OFD services applications, so it would be viewed as the most valuable website by the business that can deliver a lower price. Comparing conventional retail and online shopping, the relative benefit of online shopping is that it can offer both lower prices and save time, making online shopping much more convenient, as has been empirically proved (Akroush and Al-Debei, 2015). H2: Price Factor (PF) has a positive relationship with the purchase intention of using Online Food Delivery services.

This study adopts part of the Technology Acceptance Model (TAM) by Davis (1989), Dinev, and Hu (2007) to examine the acceptance of new technology. TAM indicates that when a consumer discovers a new technology, there will be many factors influencing how they embrace and use the technology. This has been used to describe factors influencing the adoption of other technologies or systems in both the customer and organizational sense (Rezaei et al., 2016c). Examples of these contexts include business graphics systems, online fashion shopping (Kim and Forsythe, 2008), mobile Internet (Venkatesh et al., 2012), smartphone use (Chun et al., 2012), social networking (Pinho and Soares, 2011), mobile police (Lindsay et al., 2011), teleworking (Pérez et al., 2004), and social media, specifically instant messaging services (Zhao et al., 2016). These studies have shown that the factors perceived to be useful and perceived to be user-friendly have been able to explain how easy or difficult it is for users to accept the use of the different technologies.

H3: Convenience Motivation Factor (CMF) has a positive relationship with the purchase intention of using Online Food Delivery services.

Salleh Mohd Radzi, et al. (2015) refers to food presentation as an appealing appearance and decoration of the product as measurable indicators for the interpretation of quality by the customers. Aforesaid, presentations are important for indicating the customer's first perceptions of the product. In addition, the ideal combination of food presentation helps the diners to completely appreciate the dining experience. Spence (2010) also accepted that it was discovered that the interpretation of consumers is typically influenced by what they see through their eyes in terms of providing a better dining experience. H4: Food Illustration Factor (FIF) has a positive relationship with purchase intention of using Online Food Delivery services among customers in Malaysia.

Conceptual framework

The theoretical framework depicts the interaction of the independent variables (IV) and the dependent variables (DV). The independent variables (IV) in the model are the product time factor, price factor, convenience motivation factor, and food illustration aspect. The purchasing intention of using Online Technology Food Delivery services in Malaysia is the dependent variable (DV). The hypothesis was formulated in the form to measure the relationship between the independent variable (IV) and dependent variables (DV). The following hypothesis is based on scientific problems and research objectives:

Hypothesis 1: Time factor (TF) has a positive relationship with purchase intention of using Online Technology Food Delivery services among users and customers in Malaysia.

Hypothesis 2: Price Factor (PF) has a positive relationship with purchase intention of using Online Technology Food Delivery services among users and customers in Malaysia.

Hypothesis 3: Convenience Motivation Factor (CMF) has a positive relationship with purchase the intention of using Online Technology Food Delivery services among users and customers in Malaysia.

Hypothesis 4: Food Illustration Factor (FIF) has a positive relationship with the purchase intention of using Technology Food Delivery services among users and customers in Malaysia.

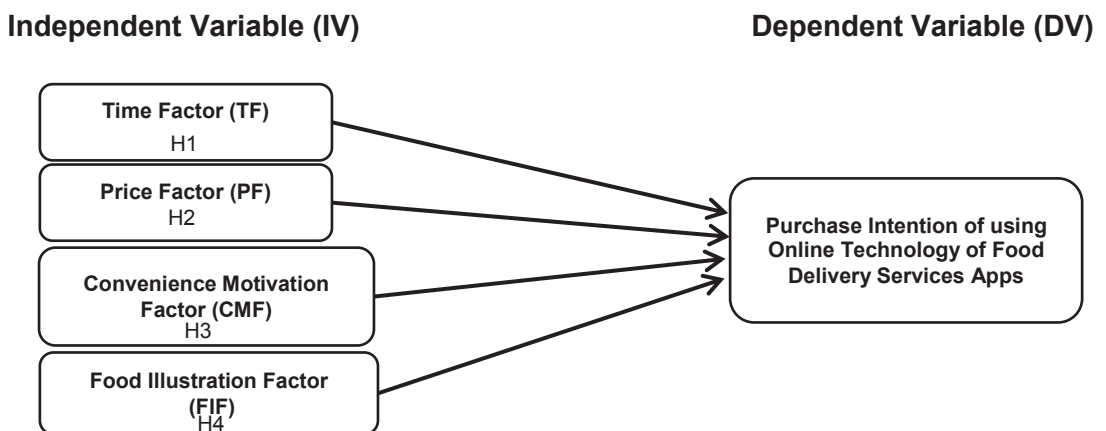


Figure 1: Conceptual Framework

Methodology

The analysis design approach, descriptive quantitative method, will be structured to generate the program for this data analysis. The transformation data will be analyzed to produce an output on the volatility factor of the online technology food delivery services applications' independent variable that influences customer purchase intentions. A questionnaire will be circulated to evaluate the decision-making process for this report, and the analysis's results will be established as significant data responders between two variables. The purpose of this descriptive study is to learn about users' and customers' purchasing intentions for using Online Technology of Food Delivery services apps in Malaysia. (n) The population unit of this frequency research. According to Krejcie Morgan, among Malaysian users and consumers, the population will be separated by the number of female and male structural by sampling technique in non-probability technique using the simple random technique.

The survey will be administered in English. Short, uncomplicated questions are preferable to longer ones. Section A demographic profile of respondents question 1 to 7, Section B respondents' experience using online food delivery services question 8 to 12, Section C Purchase Intention for Online Food Delivery Services question 13 to 17, Section D Time Factor question 18 to 22, Section E Price Factor question 23 to 26, Section F Convenience Motivation Factor question 27 to 30, and Section G Food Illustration Factor question 31 to 34 comprise the questionnaire. From Section C to Section G, respondents are asked to indicate their level of agreement on a scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. Questionnaires were distributed to Malaysian users and consumers using social networks such as WhatsApp, Twitter, the YouTube comment area, and telegrams to better understand their purchasing intentions.

Result and Discussion

The Reliability Test demonstrated that the entire variable (time factor, price factor, convenience incentive factor, food illustration element, and purchase intention to utilise online technology of food delivery services applications) is solid. According to Cronbach's Alpha result, the created objects are a good match for presenting the variables, and additional study can be done with confidence. This indicates that all of the variables offered by several things were in appropriate order and placement, as the data analysis demonstrates that these items are closely related and inside the same variable, yet it is secure enough to be categorised as redundant secure. According to this study, the most crucial incentive element for most customers when selecting the ideal online technology meal delivery services for them is convenience. They appreciate apps and services that are simple to use and navigate. The ordering procedure should be straightforward and simple. They will prefer a user-friendly app. They also want apps that can learn their preferences, so that every time they open

the app to buy meals, the software platform knows what to provide to that specific consumer. Customers would be able to make purchases more quickly and easily as a result of this. Existing customers are crucial to any business because they have purchased and used the company's services in the past. Thus, the transaction should be as convenient as possible.

Respondent's Profile

Respondents are consumers of online technology meal delivery service apps in Malaysia, according to the results of data analysis. Females make up the majority of responses to the questionnaire, which was distributed via online outlets. The percentage is 53.6% for women and 40.7% for men. More than 80% of the 167 respondents were between the ages of 20 and 39. 47.3% were between the ages of 30 and 39. 41.9% of them were between the ages of 20 and 29. The remaining respondents aged 40 to 59 years old made up less than 10% of the total respondents. In Malaysia, a large percentage of degree and diploma holders responded to the questions. Undergraduates/degree holders account for 47.9% of responders, while matriculation/STPM/Diploma/Certificate holders account for 35.3%. PMR/SPM and Postgraduates/Masters/PhD holders account for 8.4% of the total. Moreover half of those polled work in the private sector. 18% work for the government, while 15% are full-time students. The table showed nearly even percentages of monthly gross revenue ranging from RM1000 and below to RM6000 and beyond. 22.2% of their gross monthly revenue is between RM 2000 and RM 3000. We received 280 responses, with 167 of them residing in Klang Valley. The remainder comes from other Malaysian states such as Pulau Pinang, Johor, Melaka, Sabah, and Sarawak.

Pearson Correlation Analysis

Correlation is a statistical measure describing the degree of association between two variables or more. In this study, we used correlation to define the degree of association between factors affecting the intention to purchase using online technology food service delivery applications in Malaysia. Using the Pearson Correlation Coefficient, the results of the correlation and the relation between the dependent variable and independent variables can be interpreted. The score could range between -1.00 and +1.00. Table 1 shows the interpretative value.

Table 1: Value of Interpretation

Value	Interpretation
Less than .20	Very weak relationship
.20 - .40	Weak relationship
.40 - .60	Moderate relationship

Table 1(continues)

Value	Interpretation
.60 - .80	Strong relationship
.80 – 1.00	Very strong relationship

Table 2: Summary of Pearson Correlation of Purchase Intention of Using Online Technology Food Delivery Services Apps.

	Purchase Intention	Time Factor	Price Factor	Convenience Motivation Factor	Food Illustration Factor
Purchase Intention	1	.692**	.558	.700	.350
Time Factor	.692**	1	.533	.754	.324
Price Factor	.558**	.533	1	.493	.383
Convenience Motivation Factor	.700**	.754	.493	1	.389
Food Illustration Factor	.350**	.324	.383	.389	1

** . Correlation is significant at the 0.01 level (1-tailed).

According to the Pearson Association Analysis, two of the independent variables (the time factor and the convenience motivation component) show a substantial positive correlation with the dependent variable (purchase intention in using online technology food delivery services apps) – a strong relationship. The variable with the highest score of 0.700 is the convenience motivation factor. The independent variable pricing factor has a 0.558 connection with the dependent variable which indicates a moderate relationship. Food illustration picture factor 0.350 is the smallest variable that indicates weak relationships.

Conclusion

From the study, we could gain a lot of information that could help online food delivery service apps to improve their system and customers’ experiences. Dependable smartphone usage has increased significantly over the years. Everyday duties and routines are mainly made using smartphones. Thus, the player in the industries needs to know precisely what customers do loves. The study shows customers frequently ordered food for 2-4 people for each transaction thus more food meals should be offered particularly for 2-4 pax so customers can make the decision easily. The average spending is below RM40 thus the price range on focused items should within the range. The study also indicates that most customers choose to buy fast foods using online food delivery services over other types of cuisine. It clearly shows that the current trend in online food delivery is fast food and the particular industry

makes take up the major market shares. It is probably the marketing efforts made by them or maybe by other reasons thus those particular fast-food industries could enhance their foods and services to take advantage of the situation. However, for other restaurants or cuisines, they might need to do more aggressive marketing or promotion so they could capture the customers to encourage them to choose to buy their meals over other competitors. In this research, the convenience motivation factor plays the most important role for most customers when they are choosing the best online food delivery services for them. They love app services that are easy to use and navigate. The ordering process should be simple and straightforward. Existing customers are essentially important to any establishment as they have experience in buying and using the services provided by the company. Thus, the process should be simple and have fewer hustles. Apart from that, customer loves services provider that could send the food ordered as quickly as possible. They don't like to wait for too long for the food. Preferably the foods ordered should reach their food steps in less than 30 minutes. It would be much better if customers get to choose the time frame when the food should arrive at the location by placing the order in advance. This would improve the customers' experience significantly as the customers could plan their time and schedule more effectively and just focus on their other tasks but still can have their meals on the time, as they want it to. Price factor plays a quite significant impact on customers' purchase intention towards using online food delivery services apps. They will ensure the money spent gives value to them. Value often be the main criterion over other factors. Thus, the app service provider and the restaurant should be more creative in determining the food price and the delivery charges by still managing to obtain their target revenues. Although there are saying that good foods plating is more tempting to the eyes. But this particular online food delivery service, might not be the main factor that customers are looking for or at least for now. Customers tend to weigh other factors over the food illustration shown on the app's menu. After we were done with the research, we strongly believed that the convenient motivation factor and time factor play the most crucial factors for most customers whenever they want to use online technology food delivery service apps. Any new technology developed is intended to better the lives of all people. Users would use the chosen applications more frequently if they could give all of the necessary experiences, resulting in consistent repeat purchases, especially for those who utilise online meal delivery services frequently. As a result, it is vital for operators and app developers to properly understand their customers and design and maintain their apps to make them as convenient as possible to retain customer loyalty. By adhering to these principles, as well as continuing new and trendy marketing efforts, the company will be able to maintain a significant market share within Malaysia in today's ever-demanding and extremely competitive industry in the online meal delivery services sector. It is vital for industry players to always update themselves and be completely aware of the changes in consumer demands and wants and being a step ahead of other competitors will undoubtedly become a competitive advantage for a company that always understands its customers better.

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