

HOTEL RESTAURANT FOOD DELIVERY APP: CUSTOMER INTENTION

Rashid Salleh¹, Norhamizan Hamir², Nur Ain Nabila Azmi³, Ashraf Siddik Khan Abdul
Rahim Siddique⁴

Faculty of Hotel & Tourism Management,

*Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau
Pinang, Malaysia*

¹*rashid.salleh@uitm.edu.my*; ²*norhamizan317@uitm.edu.my*;
³*nabilaazmi_9893@yahoo.com*; ⁴*ashraf.siddik@uitm.edu.my*

ABSTRACT

The industry revolution has revolved the food delivery system which from restaurant-customer to customer-apps-restaurant. The fourth industrial revolution also offering opportunities for business to create a novel service offering. A company such as Food Panda, Deliver Eat, Grab Food and others has make millions of ringgit per years by providing a food delivery service (Rosli, 2018). She also added that this new business model has shown service technology will become one of important business for future market demand. Unfortunately, this profitable business model did not fascinate hotel restaurant. None of the above apps provided a food delivery from hotel restaurant in Penang. Furthermore, the hotel itself did not have any created and offer online food delivery for their hotel restaurant. Exploring this unusual phenomena, the study will investigate either there is any demand for hotel restaurant food delivery or not. In order to conduct the study, theory of acceptance model (TAM) will be use as a foundation of this search. The study objective has revealed that all restaurant customers in Malaysia will be the sample in this study. To decode the data collected, Statistical Package for the Social Sciences (SPSS) software will be use. The result of the study may provide a little help for the industry and added a significance data, which can be utilize by other researchers. Besides that, this study may add a new body of knowledge where there is still no study specifically focus on hotel restaurant segment.

Keywords: *Food delivery apps, TAM, perceived usefulness, perceived ease of use, attitude toward use, behavioural intention to use.*

INTRODUCTION

Food and beverages industry has evolve so many time to accommodate the demand of their customer. With the internet of thing (IOT), the industry makes a shift one again. The trends of food delivery has evolve and it divided into two categories, which are restaurant to customer and platform to customer. Base on the report (Statista Digital Market Outlook, 2018) this business model would grow from US\$ 92,393 million on 2018 to US\$145,282 million on 2023 worldwide. The trends already invade Malaysia food industry for example fast-food restaurant, ethnic restaurant and Malay restaurant. One of food and beverages industry that still not

following the trends is hotel restaurant. A quick search in Google Currently there is no online food delivery service (Food Panda, Deliver Eat & Grab Food) being offer to the customer by the hotel even though the data from (CK Wong & Adrian Oh, 2018; Lidiana Rosli, 2018; Lien, 2017; Shi, The, & Times, 2018; Statista Digital Market Outlook, 2018) show the important of this technology.

A search that been done in the available app (Food Panda, Grab food, Deliver Eat) and in Google play store, confirming that hotel restaurant did not provided this service. These phenomena puzzling the researcher and it a signal for researcher to conduct a study on this phenomena. The reason why the study needed because it will help the hotel management to decide on adopting this technology or not. Nevertheless, it is very hard to find any research on online food delivery apps that focus to the hotel restaurant. This research will provide several objectives in conjunction with the phenomena;

- 1) To investigate is there any customer intention to use hotel food delivery apps.
- 2) To determine out the attitude of customer toward intention to use food delivery apps.
- 3) To identify the relationship between hotel foods delivery apps ease of use toward attitude.
- 4) To study the relationship between usefulness of hotel food delivery apps toward attitude.

By conducting the study, it could help the hotel restaurant management or app developer to decide to provide the online food service or not. Additionally, the result from the study also can be use by marketer to develop a new marketing strategy that may help on increasing their organization sale. Form the point of academic perspective, this study can be a foundation for other researchers that would like to investigate others technology in hotel restaurant. The direct contribution of this study toward academic will be adding a new horizon in latest hotel technology literature.

Online food delivery apps are the latest trend in technology for food industry. The study of technology closely related with one theory; technology acceptance model (TAM) by Davis (1989). Many study already been conducted using this model (Alagoz & Hekimoglu, 2012; Fong & Wong, 2015; Lee, Lee, & Jeon, 2017; Okumus & Bilgihan, 2014; Purnawirawan, De Pelsmacker, & Dens, 2012; Shi, The, & Times, 2018) which focus on technology and customer behavioural intention. The above study adopts this model due to the function of this model for technology literature. The function of this model that study the human behaviour (intention) usually can give a robust result that use for decision-making. Thus, this study will employ TAM as a foundation of this research as it can answer the above objective and it related with technology.

TAM model was born to forecast the acceptance of a new technology toward the target consumers. Two main elements (perceived ease of use and perceived usefulness) that TAM model use will help to describe directly the attitude of the consumer and consumer behavioural intention indirectly. Davis (1989) describe the two element as the degree which consumer use easily with no or less effort (perceived ease of use) and degree which the technology use may help their work/life (perceived usefulness).

OVERVIEW OF ONLINE FOOD DELIVERY

The development of online food delivery was closely related to the woman workforce in a country. The traditional home cook affected due the swelling number of women who are going to work. For Malaysian, the labour force increased from 15.28 million in second quarter 2018 to 15.60 million for second quarter 2019 which show an increase of 1.3 percent (Department of Statistic Malaysia, 2018, 2019a). For the Malaysian women's participation rate in the labour force is also increasing, from 5.95 million in second quarter in 2018 to 6.11 million in second quarter in 2019. As a result, the demand for food delivery services increase among women and households due to the limited time for home cooking. This point being supported by Department of Statistic Malaysia (2019b) which show an increase of 2.5% of F&B sale in first quarter 2019.

According to Yusof, Yusof, & Yusof (2016) food delivery services can be characterized as business platforms that provide order services, payment and monitoring of the process but are not responsible for the preparation and order delivery operations. Salunkhe, Udgir, & Petkar, (2018) highlighted quite a few process in online food delivery which are;

1. The customer register on the food-ordering website.
2. Customer select the restaurant from nearby area.
3. Customer then views the food items.
4. Finally, customer decides to place the order.
5. Customer places the order and makes online payment.
6. The order directly sent to food ordering and delivery portal.
7. Simultaneously order is also received to the restaurant.
8. Order will be prepared in stipulated time that promise to customer earlier while placing the order.
9. Food delivery boy will pick up the order from restaurant and will deliver at customer's doorstep.

The above process involved three major parties, which are app developer, restaurants and the customer itself. The benefit of the technology stated by Vincent Cheow Sern Yeo, Goh, and Rezaei (2017) was the technology offer unlimited choice of products and services to consumer base on the product customization, interactive communication and quick delivery. The benefit supported by a world global data pending of \$20 billion which equivalent to more than \$150,000 every minute between July and September in 2018 (Kemp, 2018). Besides that, Statista's global consumer survey shows that food and drink online purchase category brought almost 28% compare to other online purchase category. Go back to Malaysia market, approximately 28.4% out of 43.9 million mobile phone users has made online purchases for food and items via apps (Malaysian Communications and Multimedia Commission, 2017). The huge number of user show that this online app purchasing technology has develop in Malaysia and bring a positive impact to business. This technology also expected to grow in the future. There are several food delivery operator that already establish in Malaysia which are Foodpanda, DeliverEat, Uber Eats, Honestbee, Running Man Deliver, FoodTime, Dahmakan,

Mammam, and Shohun2u (CK Wong and Adrian Oh, 2018). They added that Food Panda become the first online delivery service company that started in Malaysia. The writer also conclude that the food delivery industry to grow around USD965 million in 2022 which expected to be the most growing sector in the market (CK Wong and Adrian Oh, 2018).

TECHNOLOGY ACCEPTANCE MODEL DEVELOPEMENT

The studies of individual behaviour have started in 1940. The study was divide into two category, which were psychological and social study (Momani & Jamous, 2017). Technology of acceptance model (TAM) was place under psychological category, which it evolves from extensions of other model as figure 1 below.

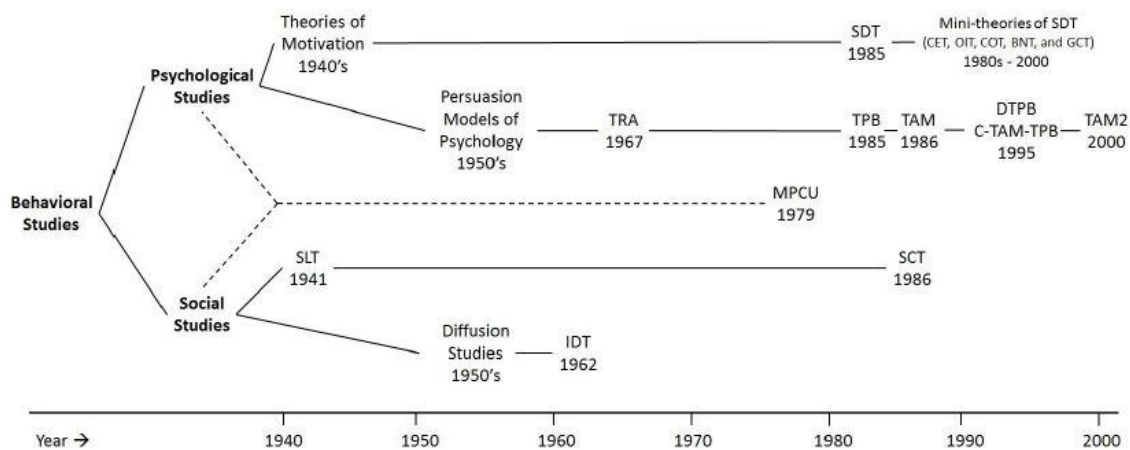


Figure 1: Chronological graph for the evolution of technology acceptance theories (Momani & Jamous, 2017).

Theory of Reasoned Action (TRA) become the earliest theory that study a technology acceptance. It developed by Ajzen and Fishbein in 1967, which study individual behaviour towards attitude. M Fishbein and Ajzen, (1975) added that TRA was designed to describe human behaviour based on either one-dimensional or multi-dimensional element. However, this theory not being developed to study specific technology or behaviour. The aim of this theory was to predict, explain, and influence human behaviour. The construct of this theory will be subjective norm and attitude toward behaviour.

After TRA, theory of planned behaviour (TPB) has been develop which it was an extension of TRA. Ajzen (1985) has enhance the model by add new input; perceived behavioural control. The new input hypothesized as an additional determinant for intention and behaviour. The new developed model (TPB) open the horizon on understanding the individual acceptance for technology.

In 1986, a model that directly target technology study has been develop which is Technology of Acceptance Model (TAM). The model which developed by (Davis, 1986) and is also the extension of TRA. To synchronize the model with technology elements Davis (1986) has replaced the behaviour attribute in TRA to perceived usefulness and perceived ease of use to study the acceptance of new technology as shown in Figure 2 below. TAM being develop into three stage, adoption, validation and extension. For the first stage, the model being adopt and tested for the stabilities of it construct. It being use in many study of information systems application. After that, TAM show an accurate measurement while testing the individual acceptance behaviour toward several kind of technologies. This result validate TAM as a good

model for technology acceptance. Lastly, in extension stage, other researcher starts to use it and expand TAM constructs to fulfil certain requirement for their study.

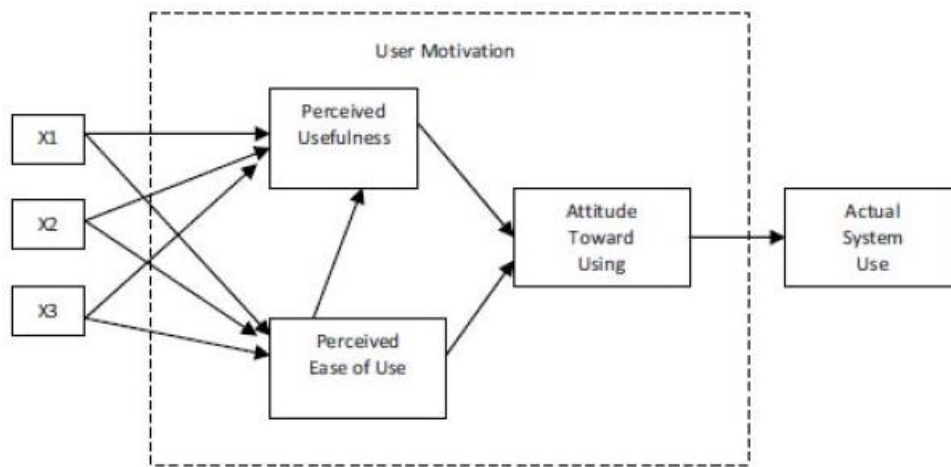


Figure 2: Original Technology Acceptance Model (Davis, 1986)

TAM AND ONLINE FOOD DELIVERY APP

The trend of food delivery has been sparking a lot of interest from academician to study and analyse the phenomena. As noted by Paul, John and Pierre, (2003) most of study for technology using TAM model which developed by (Davis, 1986) as their working framework. Accordance to Yang (2005), TAM has become one of the top model in studying the effect of perception toward technology that supported it use for E-payment system that being use in most of mobile application.

Besides that, TAM is getting up their popularity from the researcher that involve in analysing new technology (Lee, Kozar & Larsen, 2013). They added that TAM might help the researcher to provide a prediction and helping the industry to analyse either the new technology accepted or not by their customer. There will be several study, which discuss this subject as being summarize in the table 1 below.

Table 1: Summary of research on food delivery system

Author	Title	Content Summary	Discussion
Alagoz, Serhat Murat Hekimoglu, Haluk (2012)	A Study on Tam: Analysis of Customer Attitudes in Online Food Ordering System	<ul style="list-style-type: none"> • TAM model • Sample – University student • Questioner – 5 Likert scale • SPSS – multiple regression analysis 	All construct/hypothesis supported. All customer accepts to use ordering online system.
Okumus, Bendegul Bilgihan, Anil (2014)	Proposing a model to test smartphone users' intention to use smart applications when ordering food in restaurants	<ul style="list-style-type: none"> • TAM model • Review and synthesis of previous literature 	Based on an extensive review, this paper develops a conceptual model that includes the precursors of actual usage of smartphone apps that may assist in building healthy eating habits.

Patel, Mayurkumar (2015)	Online Food Order System for Restaurants	Computer program – JAVA script	Development of online food ordering website.
Lee, Eun-Yong Lee, Soo-Bum Jeon, Yu Jung Jennifer (2017)	Factors Influencing the Behavioral Intention To Use Food Delivery Apps	<ul style="list-style-type: none"> • TAM model • Sample – Korean online food customer • Questioner – 5 Likert scale • AMOS – confirmatory factor analysis 	All construct/hypothesis supported. Future result was asking to test different setting
Fancello, Gianfranco Paddeu, Daniela Fadda, Paolo (2017)	Investigating last food mile deliveries: A case study approach to identify needs of food delivery demand	<ul style="list-style-type: none"> • Sample – Business organization in city centre • Interview and questioner • Multiple correspondent analysis 	Not all business will use food delivery because some of them need to take care the quality of food eg. Fine dining restaurant.
Kapoor, Anuj Pal Vij, Madhu (2018)	Technology at the dinner table: Ordering food online through mobile apps	<ul style="list-style-type: none"> • Construct from several researcher • Sample – college student • Mix method • SEM and AMOS - confirmatory factor analysis 	All construct has significance effect to customer engagement on buying food using mobile apps
Salunkhe, Sandeep Udgir, Swapnil Petkar, Sadanand (2018)	Technology Acceptance Model in Context with Online Food Ordering and Delivery Services: An Extended Conceptual Framework	<ul style="list-style-type: none"> • TAM model • Review and synthesis of previous literature 	The paper has developed one conceptual model for online food ordering

METHODOLOGY

The researcher plan to conduct a cross sectional study, which will employ quantitative approach which suitable for answering the objective of this research. A non-probability sampling will be use to collect the data from all sample in the population. The customer who experienced in using the food delivery service will be the unit of analysis, as this study would like to investigate the intention to use the food delivery apps. Questioner that will be distribute using online platform will have a screening question to avoid unwanted data.

A self-administered questioner will be developed from the previous literature. There will be four section in the questioner started with demographic question and followed by the entire construct under TAM model. Closed ended question with five-Likert scale will be use in the TAM model and closed ended multiple-choice question use for the demographic section. A pilot study will become the first step to check the clarity, reliability and proper usage of word before the real survey will be deploy.

The data analysis will be conduct using a Statistical Package for Social Sciences (SPSS). This is most common data analysing software that been use for quantitative study. For pilot test, the researcher plan to analyse using validity and reliability tool in SPSS to make sure that all construct a good enough to be use. Then, the demographic profiles will be analysed by using descriptive tool in SPSS. The rest of question will be analyse using Pearson correlation and multiple regression to answer the objectives of this study as well as to test the hypothesis stated in this study.

CONCLUSION

The booming of technology will have a positive and negative impact to the industry and the food delivery give a positive impact to the industry. The increase in food sale for the restaurant are the reason why all food establishment should adapt it. As stated earlier in this paper hotel restaurant still did not follow the trend. One of the reason will be the lack of study to show the intention of customer to order hotel restaurant food. Thus, this paper will help the hotel management by providing a data for them to analyse and decide to apply the technology. The study will be investigating several objective that use TAM model as the foundation of this study. The most important objective is to investigate the intention of customer to use the hotel delivery apps. Then it follows with study on the attitude of customer toward intention to use, ease of use toward attitude and lastly usefulness toward attitude.

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REFERENCES

- Alagoz, S. M., & Hekimoglu, H. (2012). A Study on Tam: Analysis of Customer Attitudes in Online Food Ordering System. *Procedia - Social and Behavioral Sciences*, Vol. 62, pp. 1138–1143. <https://doi.org/10.1016/j.sbspro.2012.09.195>
- CK Wong and Adrian Oh. (2018). The food delivery battle has just begun in Malaysia. Retrieved from ecInsider website: <https://www.ecinsider.my/2018/02/food-delivery-companies-malaysia.html>
- Davis, F. D. (1986). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Quarterly*, 13(3), 319–340.
- Department of Statistic Malaysia. (2018). Pocket Status Quater 2 2018. Retrieved September 30, 2019, from https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=aEcwUGtOQ1pUaVIUVDZnTnB1Z2dSQT09
- Department of Statistic Malaysia. (2019a). Pocket Status Quarter 2 2019. Retrieved September 30, 2019, from https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=SkdMOEQyY2RwRDBhdlB4aHZKZStPdz09
- Department of Statistic Malaysia. (2019b). Stats_Alert_2019_Q1-2019. Retrieved September 30, 2019, from https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=QytXNWIRS2Q1a0RMZm1jeU80Sy9mdz09
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. In *Philosophy Rhetoric*. <https://doi.org/10.1002/cncr.26402>
- Fong, K. K.-K., & Wong, S. K. S. (2015). Factors Influencing the Behavior Intention of Mobile Commerce Service Users: An Exploratory Study in Hong Kong. *International Journal of*

- Business and Management*, 10(7), 39–47. <https://doi.org/10.5539/ijbm.v10n7p39>
- Kemp, S. (2018). *THE STATE OF THE INTERNET IN Q4 2018*. Retrieved from <https://wearesocial.com/blog/2018/10/the-state-of-the-internet-in-q4-2018>
- Lee, E.-Y., Lee, S.-B., & Jeon, Y. J. J. (2017). Factors Influencing the Behavioral Intention To Use Food Delivery Apps. *Social Behavior & Personality: An International Journal*. <https://doi.org/10.2224/sbp.6185>
- Lidiana Rosli. (2018). Foodpanda-records-100pct-growth-2017 @ www.nst.com.my. *New Straits Times*. Retrieved from <https://www.nst.com.my/business/2018/06/381431/foodpanda-records-100pct-growth-2017>
- Lien, T. (2017). Restaurants fatten up with food delivery apps @ www.thestar.com.my. *Thestar Online*. Retrieved from <https://www.thestar.com.my/tech/tech-news/2017/04/08/restaurants-fatten-up-with-food-delivery-apps/>
- Malaysian Communications and Multimedia Commission. (2017). *Hand Phone Users 2017*.
- Momani, A. M., & Jamous, M. M. (2017). The Evolution of Technology Acceptance Theories. *International Journal of Contemporary Computer Research (IJCCR)*, 1(1), 51–58. <https://doi.org/10.1002/anie.201003816>
- Okumus, B., & Bilgihan, A. (2014). Proposing a model to test smartphone users' intention to use smart applications when ordering food in restaurants. *Journal of Hospitality and Tourism Technology*, 5(1), 31–49. <https://doi.org/10.1108/JHTT-01-2013-0003>
- Purnawirawan, N., De Pelsmacker, P., & Dens, N. (2012). Balance and Sequence in Online Reviews: How Perceived Usefulness Affects Attitudes and Intentions. *Journal of Interactive Marketing*. <https://doi.org/10.1016/j.intmar.2012.04.002>
- Rosli, L. (2018, June). foodpanda records 100pct growth in 2017. *New Straits Times*, pp. 1–6.
- Salunkhe, S., Udgir, S., & Petkar, S. (2018). Technology Acceptance Model in Context with Online Food Ordering and Delivery Services: An Extended Conceptual Framework. *Journal of Management (JOM)*, 5(5), 73–79. <https://doi.org/10.13140/RG.2.2.31138.27849>
- Shi, N., The, W., & Times, B. (2018a). *Bittersweet taste of food delivery apps*. 1–3.
- Shi, N., The, W., & Times, B. (2018b). *Bittersweet taste of food delivery apps*. 1–3.
- Statista Digital Market Outlook. (2018). • eServices Report 2019 - Online Food Delivery | Statista. Retrieved June 30, 2019, from November website: <https://www.statista.com/study/40457/food-delivery/>
- Vincent Cheow Sern Yeo, Goh, S.-K., & Rezaei, S. (2017). Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services.pdf. *Journal of Retailing and Consumer Services*, 150–162.
- Yusof, Z. S. M., Yusof, F. M., & Yusof, Y. M. (2016). Determinants towards Food Delivery

Service through E-Commerce in Pasir Gudang Area. *Journal of Modern Education Review*, 6(9), 622–631. [https://doi.org/10.15341/jmer\(2155-7993\)/09.06.2016/006](https://doi.org/10.15341/jmer(2155-7993)/09.06.2016/006)