THE RELATIONSHIP BETWEEN CONSUMERS’ PRICE-SAVING ORIENTATION AND TIME-SAVING ORIENTATION TOWARDS FOOD DELIVERY INTERMEDIARIES (FDI) SERVICES: AN EXPLORATORY STUDY

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Abstract

This study presents hypothesis testing to examine two factors, time and price, influencing behavioural intention to use online food delivery intermediaries (FDI) service. Convenience sampling was used for a survey and 106 questionnaires were collected to test the research model using multiple linear regression analysis approach. Multiple regression analysis was employed to explore the relationship between time, price and behavioural intention. The results revealed that time factor has a significant impact (p < .0001) while price factor has no significant impact on the dependent variable (p = .170). The findings implies that online consumer’s perceives that time-saving is an important factor while price-saving is not considered in using online food delivery intermediaries service. Finally, practical recommendation and limitation are discussed.

Keywords: purchasing online, food delivery intermediaries, behavioural intention,
Introduction

E-commerce has evolved the market nowadays through the Internet. Both businessman and consumers are able to access global market virtually anywhere they want with the access of the Internet. In Malaysia, the high Internet penetration makes the online business become viable and popular (Chong, Chan & Ooi, 2012). In United States for example, the revenue in the food delivery segments is expected to reach the amount of US358 millions in year 2018 (Statista, 2018). This has created business opportunity for the online business such as food delivery services. It serves as a new online platform where consumer can order meals at the comfort of their own locations and at the leisure of their own time.

In today’s fast paced life, people would like to make sure their time has been fully utilized. Spending time on restaurant is considered luxury activities that they are trying to avoid as it wasted a lot of precious time (Sobal & Falk, 1996). Food delivery intermediary service or FDI is able to eliminate all this meaningless time taken by delivering the meal from particular restaurant to consumer place. Consumer’s time-saving may be the driven for utilizing this service so that they can spend their time in other important activities. However, higher cost resulted from this service may prevent consumer for using FDI service (Stank, Crum & Arango, 1999).

Consumers have different needs and expectations when using online FDI. In terms of technology adoption, there have been numerous studies that have found a positive relationship between attitude and behavioural intention to use the online service (for examples, see Chang, Yan & Tseng, 2012; Ingham, Cadieux & Berrada, 2015; Zhou, Cao, Tang & Zhou, 2017). Cheow, Goh and Rezaei (2017) stated that consumers’ intention to use online service is because of convenience, usefulness, cost and time savings, and hedonic motivations.

There are two types of food delivery services provider in Malaysia. The first type is the retailers themselves. They own and manage their fast food chains networks. This includes Nando’s Online Delivery (delivery.nandos.com.my), Domino’s Pizza (www.dominos.com.my), Pizza Hut (www.pizzahut.com.my),
McDonalds (www.mcdonalds.com.my) and KFC (www.kfc.com.my). The second type is serving as restaurant intermediaries. This type of food delivery service provides delivery services for a large range of restaurants. Examples for this type are foodpanda (www.foodpanda.my), dahmakan (www.dahmakan.com.my), Mammam (www.mammam.com.my) and Cooked (www.cookedapp.com.my). The second type is common in urban areas.

In an urban area such as Kuala Lumpur, time has been a very luxury element that cannot be wasted to do any unnecessary and meaningless things. It is undeniable that consumer living expenses are getting higher and people are trying to save their money as much as possible (Gijsbrechts, Campo & Vroegrijk, 2018). Extra costs will be incurred if meals to be delivered which cause the price higher compared with the normal price consumed in traditional restaurants. Therefore, with the emergence of FDI, meal can be ordered and delivered to consumer without having to walk out from consumer own place or office. Time-saving has been the most important factor that attracts consumer to use FDI service (Fancello, Paddeu & Fadda, 2017; Nair, Grzybowska, Fu & Dixit, 2017).

There are pros and cons for utilizing FDI services from the scope of time and cost orientations. Previous studies have not provided much information about these two orientations from the perspective of urban scenario in Malaysia. The increased importance of online FDI services in urban area such as Kuala Lumpur makes it essential to study how time and price factors affect consumer behaviour. FDI services act as a platform in operating online purchasing where consumers make an order through intermediaries’ website. There is a strong tendency of time and price factors that affect consumer to use this online service. Therefore, the objective of this study is to explore consumers’ time-saving and price-saving orientations towards behavioural intention to use FDI services. It investigates whether these two orientations have an influence on consumer behaviour when using the online food delivery service. A research question is developed for this study: is there any significant impact from time-saving and price-saving factors towards consumers’ decision to use FDI services?
The attribution theory (Fiske & Taylor, 1991; Savolainen, 2013; Höni, Meissner & Wulf, 2017) provides the basic theory in order to explore time and price factors on consumer behaviour of using online FDI in this study. This theory deals with how a perceiver uses information to response for events. In this study, consumers use the information about price and time for determining the use of online FDI.

**Literature Review**

Before computers and mobile devices were introduced to the world, people used to order and enjoy foods at their preferred restaurant until the technology of the Internet introduces the online business including an online food ordering system. According to Corcoran (2000), a company called the World Wide Waiter (now known as Waiter.com) is considered to be the first online food ordering service available beginning in 1995.

With the advancement of the Internet, a lot of fast food operators apply a system known as Online Ordering System in order to assist their business processes (Xiang & Zhou, 2007). It is a system that assists a restaurant from taking online order from consumers. The consumers are able to order their favourite food via the Internet by either using browser or Smartphone application. For example, in Malaysia, McDonald's has its own smartphone application called “McDelivery™ Malaysia (mcdelivery.com.my) to handle online food orders. Consumer are embracing online ordering because its ease, speed, and precision (Blake, Neuendorf & Valdiserri, 2005). The online ordering mechanism becomes efficient when restaurant operators cooperate their business with the Internet (Okumus & Bilgihan, 2014).

One reason that motivates consumers to purchase food via Internet is because of convenience (Jiang, Yang & Jun, 2013). Previous study has shown that consumers who are keen to use online food ordering are grouped into “home-based shopping orientation” and “technical orientation” (Farag, Schwanen, Dijst & Faber, 2007); and the convenience factor suits these two online food ordering groups. Previous study has shown a relationship between convenience
and online shopping. Convenience characteristics have shown significant relationship on price in driving consumer intention to shop online (Chiang & Dholakia, 2003).

Online consumers perceive is an important element that affecting their intentions to perform online shopping context (Park & Kim, 2003). Consumers who are using food delivery application or website have the ability to compare prices from different websites and choose the best deal for them. This is because the Internet makes consumers able to perform price comparison. Thus, it provides useful information for online buyers to buy products at a lower cost (Moshrefjavadi et al., 2012) and high quality of service (Doherty & Ellis-Chadwick, 2010).

From the perspective of time-saving orientation, consumers always have an intention to “buy time” when turning to online shopping (Jensen, 2012; Alreck & Settle, 2002). In another study, Wu (2003) has stated that changing consumer lifestyles and lack of time make consumers experience more difficult to shop at physical locations such as stores and shopping malls. Wu also has stressed that as long as time-saving incurs in online shopping, consumers will continue to use the service.

Other studies have focused on the relationship between consumer satisfaction and efficiency of online delivery (see Chan, Barnes & Fukukawa, 2016; Liu, He, Gao & Xie, 2008). The findings from these studies cover on the issues such as first, delayed delivery brought negative effect to consumer satisfaction; second, the time of delivery was the high concern for consumers in online delivery business; and third, in the FDI business, on-time delivery was an independent variable towards quality of service.

From the above discussion of the literature review, it posits two hypotheses:

- **H1**: Consumers’ price-saving orientation has significant impact on behavioural intention towards FDI services.
• H2: Consumers’ time-saving orientation has significant impact on behavioural intention towards FDI services.

This paper focuses on how the consumer price-saving and consumer time-saving orientations affect the consumer behavioural intention towards FDI services. By examining the relationship between price-saving and time-saving orientations on behavioural intention, this study should contribute knowledge of the relationship that exists between them. Therefore the research framework is shown in Figure 1.

![Figure 1: The Research Framework](image)

**Research Methodology**

This study was carried out through a survey approach. A self-administered questionnaire was employed for gathering data. The questionnaire used 5-point Likert-based rating scales. It was distributed to all respective respondents in October 2017. The questionnaire comprised of two parts. Part 1 was about the respondents’ profile and background while Part 2 was the independent variables for price-saving and time-saving orientation. Part 2 also comprised of the consumer behavioural intention towards FDI services as a dependent variable.
The survey required respondents to give their rankings on the independent and dependent factors from strongly agree to strongly disagree.

Convenience sampling was used in the survey. It is cost-effective and data can be collected in a short time. In the survey, a total of 150 participants were selected from a Cheras area, Kuala Lumpur, Malaysia to participate in the study. There were 106 respondents replying to the invitation. The response rate is 70.7 percent. In term of data analysis, the Statistical Package for Social Science (SPSS) version 20.0 was used to perform the hypothesis testing and demographic analysis using the multiple regression analysis. Multiple regression analysis is used to study the relationship between various independent variables and one dependent variable. (Sekaran & Bougie, 2016). In addition, validity of the questionnaire was established through a pilot study involving 10 post-graduate students in a private university. The feedbacks were used to verify the content of the questionnaire.

Results

Majority of the 106 respondents is aged less than 27 years old (63, 59.4%) followed by those ranging from 31 to 33 years old (21, 19.8%) and those from 28 to 30 years old (13, 12.3%). Age group 34 and above are the least among the respondents (9, 8.5%). There are 81 (76.4%) female and 25 (23.6%) male respondents. Respondents were identified as employee (97, 91.5%) and self-employed (9, 8.5%). Majority of the respondents were earning a moderate level of income (102, 96%) while the rest earned high level of income (4, 3.8%). In the reliability test, the Cronbach Alpha scores reached the acceptable range of .70 which indicates high reliability of the questionnaire. Finally, the histogram indicates an approximate bell-curve distribution. The skewness (.032 to .236) and kurtosis (-.240 to .105) values falls within the range of +1 and -1. Thus, normality assumption is met for the multiple regression analysis.

Multiple regression analysis was used to test the proposed hypothesis. The R-Square measures the percentage of the variation in the dependent variable (DV) explained by the variations in the independent variables (IVs). From table 1, R-Square value indicates that the two independent variables explained 37% of the
variation in consumer behavioral intention towards FDI services. Furthermore, the
adjusted R square shows that the independent variables explained 35.8% of the
variability of the dependent variable. Other variables which had not been taken in
this study influenced 0.52775.

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Table 2 summarizes the results of the regression equation.

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<th>Table 2: Multiple Regression Coefficients</th>
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<td>Consumers' Price Saving Orientation</td>
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<td>Consumers' Time Saving Orientation</td>
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The regression model is given by:

Consumer Behavioral Intention towards FDI services = .707 + .161 (Consumers’ Price Saving Orientation) + .623 (Consumers’ Time Saving Orientation)

Standard coefficients give the indication that independent variables had a significant effect on the dependent variable in a multiple regression analysis. Consumers’ time-saving orientation shows the highest value of standardized coefficient which is .509 compared to consumers’ price-saving orientation. The value of the consumers’ price-
saving orientation is only .141. The t values in Table 2 indicated the variable’s statistical significance. The t value for the consumers’ time-saving orientation is greater than 2. As for the consumers’ price-saving orientation, the t value is 1.382 (lower than 2) indicating a non-significance.

The significant level used in this study was 5% (p< .05). In this study, Consumers’ time-saving orientation had a significant value less than 5%. This showed a significant effect of this independent variable on the consumer behavioral intention towards FDI services (p value < .001). As for the other independent variable in this study, the alpha value was more than 5% (p = .170).

Based on the above multiple regression analysis result, H1 was rejected while H2 was accepted.

Discussion

The objective of this study was to examine the effect of two consumers’ orientations: price-saving and time-saving on consumer behavioral intention towards FDI services. The result showed that only time-saving orientation had a significant effect on the dependent variable. Price-saving orientation was either unrelated or did not have strong influence on consumer behavioural intention towards FDI Services. The p value was .170.

In this study, price-saving orientation did not show a significant relationship on consumer behavioral intention towards FDI services. The findings showed a contrast result compared to previous studies as mentioned earlier in the literature review. A study from Park and Kim (2003) had shown that the element of price played an important role in influencing purchasing online behaviour. In addition to that, price factor was the main consideration by respondents in online purchasing (Moshrefjavadi et al., 2012; Dohetry & Ellis-Chadwick, 2010).

One reason why the price factor was not significance in this study compared with the previous studies was due to the unit of analysis selected. The unit of analysis was an individual who were purchasing retail products (see Moshrefjavadi et al., 2012; Park
& Kim, 2003). It was not specific to online food delivery services. In their studies, the unit of analysis did not focus solely the online food delivery services but more on retail products. In this case, consumers always expect prices to be lower in an online environment than in a traditional sales channel (Karlsson, Kuttainen, Pitt & Spyropoulou, 2005). Meanwhile, Dohetry and Ellis-Chadwick (2010) used secondary data for their study. The paper adopted an extensive and critical review of the literature, with regard to the adoption, uptake and impact of internet retailing, as published in the academic literature over the past 20 years. The unit of analysis was not specific to those who were working and were varied.

The unit of analysis in this study was specific. They are those items who were working and for them, the delivery factor was their primary concern. Previous studies have shown that time is an important factor which was affecting behavioural intentions in a service delivery (see Jensen, 2012; Dholakia & Zhao, 2010; Liu et. al, 2008; Wu, 2003; Alreck & Settle, 2002). Delay in delivery contributes to consumer dissatisfaction. Meaning, time of delivery is the primary concern for the online delivery business. The findings have indicated that after-delivery satisfaction has a much stronger influence on both overall consumer satisfaction and intention to return than at-checkout satisfaction (Jiang & Rosenbloom, 2005). Furthermore, the expectation from those who are ordered food from the online services providers expects to get it at the right time (Yeo, Goh & Rezaei, 2017). From another perspective, results have shown that a consumer's perception towards online will improve if the service is able to provide convenience to users (Jiang, Yang & Jun, 2013).

Similar with previous studies, time orientation is an important factor affecting respondent's perceptions. The variable showed a significant impact on the consumer behavioural intention towards FDI Services (p < .0001). This finding is supported by previous studies pertaining to the time of delivery in online service (see Yeo et al., 2017; Jiang et al., 2013). In this research, it is confirmed that consumer's attitude towards FDI services improves when it has the element of time saving and convenience. When users are able to save time, they are more likely to use FDI services. Consumers focus more on trip time cost and waiting
time cost when engaging with the online delivery services (Miyatake, Nemoto, Nakaharai & Hayashi, 2016).

Consumer’ time-saving orientation is a factor that for consumers has a high impact on the online purchase. Time for the working people is an important factor to attract them to use the service of online food delivery. According to Rahman, Khan and Iqbal (2018) time is an important stimulus to attract consumers to online purchasing, while a study by Sunil (2015) on the seller trend and practices on buying online, speed of delivery plays an important factor for online purchasing satisfaction. Ghazali, Mutum and Mahbob (2006) found that in online shopping, efficient delivery and communication overshadow some other consumer satisfaction variables.

Studies on the time-saving and price-saving orientations could expand our understanding of behavioural intention towards FDI services. Understanding that the significant impact only from the time-saving orientation, FDI providers could concern more on delivery time to the consumers. These consumers the priority is to get food on-time and they are willing to pay extra charges for the on-time delivery. Improvements in delivery for time factor can have a huge influence on online sale.

When users are able to save time in online food delivery, they are more likely to use it. Therefore, H1 is rejected and H2 is accepted.

**Research Limitations and Future Recommendations**

There are some limitations to this study. The first involves the respondents’ limitations. A specific geographical location was chosen as the basis of this study which was Cheras, Kuala Lumpur. There are many other different commercial geographical areas available in the online food market using FDI services. Future studies should examine and extend the scope of this study to other geographical area to increase the confidence level of the results. Secondly, there are limitations in the sampling approach. This study applies non-probability sampling which it is unable to represent the target population of working people who are
using online food delivery services. The use of convenience sampling method incurs sampling bias and it generates less generalizability in results.

While this means that they are an appropriate group to use when discussing online food delivery, it is important to sample different types of subjects (e.g., nature of jobs, students and location). The author thus suggests that future scholars should compare and analyze different subject groups to enrich the time-saving and price-saving orientations of behavioural intention towards FDI services.

Future research could further distinguish behavioral intention to better evaluate the differences and similarities of the influences of the different antecedents (e.g., satisfaction) along these two dimensions. Finally, there is a limitation related to gender. Most participants of this study are young females (female = 76.4%; less than 27 years old = 59.4%). It is therefore suggested that future research could explore the moderating effect of gender or age with respect to behavioural intention towards FDI services.

**Conclusion**

This study intends to test the hypothesis on the relationship between the consumers’ time-saving and consumers’ price-saving orientations on the consumer behavioral intention towards FDI services in Chreas area, Kuala Lumpur, Malaysia. The findings in this study showed that the availability of FDI services provide convenience of having meals without leaving a workplace. Consumers tend to utilize the FDI services which can allow them to put an order in the shortest time without having to go through a traditional process. The consumer’s time-saving orientation comes out to be the significant factor compares to the consumer’s price-saving orientation. FDI services are the consumers’ choice in this study as case they are looking for immediate food delivery. From the finding, it is obvious that FDI service providers are to emphasis on the time factor that the customers are looking for in ordering foods on line. The study also prescribes potential practical implications for the FDI service providers to design effective and efficient delivery strategy to make their services more popular.
References


