

Faculty of Economics and Business

The Influence of Technology Acceptance Factors and Usage of Online Food Delivery Applications (OFDA) in Sarawak

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Doctor of Philosophy
2024

The Influence of Technology Acceptance Factors and Usage of Online Food Delivery Applications (OFDA) in Sarawak

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A thesis submitted
In fulfilment of the requirements for the degree of Doctor of Philosophy
(Marketing)

Faculty of Economics and Business
UNIVERSITI MALAYSIA SARAWAK
2024

DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.



……

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ACKNOWLEDGEMENT

"In the name of Allah, the Most Gracious, the Most Merciful"

Throughout this journey, I have received a great deal of support and assistance. First and foremost, thank you Allah, for the blessing, wisdom, health and strength granted to me throughout my PhD degree journey. Next, my highest appreciation goes to the dissertation supervisor, AP. Dr. Norizan Binti Jaafar as the main supervisor and Dr. Janifer Lunyai as the co-supervisor. Once again, a garland of gratitude is dedicated to AP. Dr. Norizan Binti Jaafar as the main supervisor for the guidance, kindness, cooperation, and flexibility she has given and shown throughout my study journey.

The greatest appreciation goes to my husband, daughters, mother, siblings, in-law, family members and friends for their love, understanding, endless support and prayers for my strength during my study. Thank you very much for always standing by my side during all the hardships, besides providing me with peace and love during this study journey. Last but not least, my greatest appreciation goes to everyone who was involved directly and indirectly in realising in this journey. May Allah bless all of you until you reach Paradise. I am grateful to Allah swt.

ABSTRACT

In Malaysia, the increasing popularity of the smartphone has contributed to the expansion of Online Food Delivery Applications (OFDA). The vast majority of Malaysian customers are increasingly turning to their mobile devices to complete their online purchase transactions. Despite the significance of OFDA in Malaysia and the shifting consumer behaviour towards these services, however the nature of this market is poorly understood especially in the context of Sarawak. Therefore, this study intended to determine the influence of technology acceptance factors that influencing the behavioural intention to use and usage of OFDA in the Sarawak context. The data was collected by distributing an online questionnaire using convenient sampling technique that yielded a total of 400 responses for data analysis. It was found that the technology acceptance factors such as effort expectancy, facilitating condition, hedonic motivation, trust and risk have significant direct effects on behavioural intention to use. In addition, behavioural intention to use had a significant direct effect on usage. Apart from analysing the direct effects among the constructs, the mediating effects and moderating effects were also analysed. Behavioural intention to use acted as a partial mediator of the relationships between performance expectancy, social influence, price value, hedonic motivation, habit and usage. Besides, behavioural intention to use fully mediated the relationships between other technology acceptance factors (effort expectancy, facilitating condition, trust and risk) and usage. In addition, age, gender, and experience acted as partial moderator in the relationship between behavioural intention to use and usage. Finally, this study has outlined the directions that future researchers may take to further investigate the relationships in the aforesaid context. As well as a steppingstone and a guideline that can be used as a future research agenda, also enable to highlight the important factors for promoting

OFDA to satisfy the customers' needs, besides encouraging and enhancing the level of customer engagement among users in aforesaid context.

Keywords: Technology Acceptance Factors, Behavioral Intention to Use, Usage, Online Food Delivery Applications (OFDA)

Pengaruh Faktor Penerimaan Teknologi dan Penggunaan Aplikasi Penghantaran Makanan dalam Talian (OFDA) di Sarawak

ABSTRAK

Di Malaysia, peningkatan populariti telefon pintar telah menyumbang kepada pengembangan Aplikasi Penghantaran Makanan Dalam Talian (OFDA). Sebilangan besar pengguna di Malaysia semakin beralih kepada peranti mudah alih mereka untuk menyelesaikan transaksi pembelian dalam talian. Walaupun kepentingan Aplikasi Penghantaran Makanan Dalam Talian (OFDA) dan tingkah laku pengguna yang berubah terhadap perkhidmatan ini, namun industri ini kurang mendapat perhatian terutamanya dalam konteks Sarawak. Oleh itu, kajian ini bertujuan untuk menentukan pengaruh faktor penerimaan teknologi yang mempengaruhi niat tingkah laku untuk menggunakan dan penggunaan Aplikasi Penghantaran Makanan Dalam Talian (OFDA) dalam konteks Sarawak. Dalam penyelidikan ini, data telah dikumpul dengan mengedarkan soal selidik dalam talian menggunakan teknik persampelan mudah serta telah memperolehi sejumlah 400 maklumbalas untuk analisis data. Faktor penerimaan teknologi seperti jangkaan usaha, keadaan memudahkan, motivasi hedonik, kepercayaan dan risiko mempunyai kesan langsung yang ketara ke atas niat tingkah laku untuk menggunakan. Di samping itu, niat tingkah laku untuk menggunakan mempunyai kesan langsung yang ketara ke atas penggunaan. Selain daripada menganalisis kesan langsung antara konstruk, kesan pengantara dan kesan penyederhana juga dianalisis. Niat tingkah laku untuk menggunakan bertindak sebagai pengantara separa hubungan antara jangkaan prestasi, pengaruh sosial, nilai harga, motivasi hedonik, tabiat dan penggunaan. Selain itu, niat tingkah laku untuk menggunakan sebagai pengantara sepenuhnya hubungan di antara faktor penerimaan teknologi lain (jangkaan usaha, keadaan memudahkan, kepercayaan dan risiko) dan

penggunaan. Selain itu, umur, jantina dan pengalaman bertindak sebagai penyederhana separa dalam hubungan antara niat tingkah laku untuk menggunakan dan penggunaan. Akhir sekali, kajian ini telah menggariskan hala tuju yang boleh diambil oleh penyelidik masa depan untuk mengkaji lebih lanjut lagi hubungan dalam konteks yang dinyatakan. Selain daripada itu, hasil kajian tersebut juga boleh dijadikan garis panduan yang dapat digunakan dalam agenda penyelidikan masa depan, serta boleh digunakan untuk membantu industri mempromosikan Aplikasi Penghantaran Makanan Dalam Talian (OFDA) bagi memenuhi keperluan pengguna, serta meningkatkan lagi tahap penglibatan di kalangan pengguna dalam konteks yang dinyatakan.

Kata kunci: *Faktor Penerimaan Teknologi, Niat Tingkah Laku untuk Menggunakan, Tingkah Laku Penggunaan, Penghantaran Makanan Dalam Talian (OFDA)*

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LIST OF ABBREVIATIONS

BI	Behavioral Intention to Use
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
EE	Effort Expectancy
FC	Facilitating Condition
HA	Habit
HM	Hedonic Motivation
MCMC	Malaysian Communications & Multimedia Commission
OFDA	Online Food Delivery Applications
PE	Performance Expectancy
PR	Risk
PT	Trust
PV	Price Value
SEM	Structural Equation Modelling
SF	Social Influence
UB	Usage
UTAUT	Unified Theory of Acceptance and Use of Technology
UTAUT 2	Unified Theory of Acceptance and Use of Technology 2

CHAPTER 1

INTRODUCTION

1.1 Preamble

This study aimed to determine the relationships between technology acceptance factors for the behavioural intention to use and usage of online food delivery applications (OFDA). In addition, behavioural intention to use as a mediator in the relationship between technology acceptance factors and usage of OFDA was investigated. Besides, to determine the relationship of demographic variables (age, gender, and experience) as a moderating between behavioural intention to use and usage of OFDA. This chapter are covered the study's background, problem statement, research objectives, research questions, definition of key terms, significance of the study, and the scope of the study.

1.2 Background of the Study

As more people have access to the internet and the rapid penetration of smartphones has led to the growth of OFDA which let customers order food online and have it delivered (Cho, Bonn, & Li, 2019a; Zhao & Bacao, 2020). Cho et al. (2019) argues that OFDA is an innovative way that allows consumers to purchase a wide range of food selection via platform(s). OFDA platforms collect orders from consumer and pass on the information to restaurants and delivery personnel (Troise et al., 2021). This opens up new opportunity for restaurants to reach new market while increasing their revenues and consumers the convenience of having food delivered to their home. In addition, because of the increase in economics activity created by technology companies that fulfil consumer demand via the immediate delivery of goods and services, OFDA have become very popular and rapidly increasing market, and the size of the global market reached around US$100 billion in 2019

and the revenue is expected to increase to US$164.5 billion by the year 2024 (Muangmee, Kot, Meekaewkunchorn, Kassakorn, & Khalid, 2021). Further, the global online food-delivery sector is anticipated to grow to US$223.7 billion by 2027, with a 11.44% of compound annual growth rate (CAGR) (Statista, 2022).

Before the COVID-19 pandemic, majority of urban consumers are warming up to the concept of OFDA. This trend had a major shift with multiple regions reporting a surge in OFDA services, such as an increase 65% for Asia Pacific region, 21% for North America, 23% for Europe and 150% for Latin America region (Statista, n.d.). The new behaviour imposed will most likely remain as long-term behaviours, altering consumer's behaviours permanently. In 2020 and 2021, due to strict lockdown order, OFDA had cemented itself as the most significant trend around the world representing a significant shift from frequenting restaurant to ordering food online (Durai, n.d.). During the COVID-19 lockdown, consumers bought almost everything online, and food delivery has became indispensable (Yi & Chiu, 2023). People have proceeded from ordering takeaways in person to stores to takeaways by phone and ordering food online and with mobile devices (Shroff, Shah, & Gajjar, 2022). Thus, the world's food consumption behaviors are changing dramatically. Until 2021, food delivery has become a global market worth more than USD 150billion, tripling since 2017 (Ahuja Al., n.d.). Nonetheless, starting in late 2019, because of the COVID-19 pandemic, the whole environment of online food delivery platforms has undergone significant changes. Thus, online food delivery platforms have sensed an opportunity, providing discounts and perks to entice customers to order online instead (Magramo & Lo, 2022).

1.2.1 Online Food Delivery Application in Malaysia Context

In Malaysia, the increasing popularity of the smartphone has contributed to the expansion of OFDA. The vast majority of Malaysian customers are increasingly turning to their mobile devices to complete their online purchase transactions. According to the Malaysian Communications & Multimedia Commission, around 28.4 million Malaysians used their mobile smartphones to access the internet, with 64 percent of them using restaurants' online food delivery applications to purchase food products (MCMC, 2020). Its show that the trend is on the rise, in line with the accelerated evolution of internet applications and technology that are making a positive impact on the country's business sector. For example, usage of OFDA have gradually influenced the food and beverage industry, mainly because of the growing potential of delivery service that can facilitate employee productivity, delivery order accuracy, and the creation of customer database (Yeo, Tan, Teo, & Tan, 2021).

The increase in the number of food and beverage industry players has also contributed to the usage of OFDA in Malaysia (Chai, Ng, & Yat, 2019). According to Statista (2021), there were 6.9 million OFDA users in Malaysia in 2020; OFDA revenue is projected to reach USD 221 million at a growth rate of 45.9% year-over-year. Online food delivery in the country is available from a wide variety of establishments, including restaurants and food delivery companies (Pitchay, Ganesan, Zulkifli, & Khaliq, 2021; Nayan & Hassan, 2020). Foodpanda was the first application of food delivery service in Malaysia since 2012 followed by DeliverEat, Honestbee, Dahmakan and so forth. All these applications are being aggressive in providing food delivery service for consumers and Foodpanda in Malaysia, reported that approximately 75 per cent of Malaysians were in favour of using the Foodpanda

food delivery app (Hassan, 2018), where as more than 10 million times had been downloaded the Foodpanda Malaysia application from the Google Play Store, (Rosli, 2018).

Moreover, the exponential growth of online food delivery (OFD) application starts up in Malaysia within these few years and it is deemed as the liaison of restaurant which gives delivery services for a vast array of restaurants. The use of OFDA is popular for a number of reasons, including the convenience it provides, particularly during hectic days, traffic jams, full-time schedules, and active lifestyles (Pitchay et al., 2021; Prabowo & Nugroho, 2019). The greatest concentration of food delivery services may be found in major urban areas such as Kuala Lumpur, the Klang Valley, and Johor Bahru (Nayan & Hassan, 2020). It is because delivery app users have maintained a similar demographic, most of these areas face the most traffic, just going out to the restaurant for a meal could take a fair bit of time, so food delivery services provide an efficient and practical alternative. This means that the driving force of the OFDA services industry may be due to technology adoption and consumer lifestyle changes, which support the growth of the market. With the help of the Internet and mobile technology, OFDA services can be easily accessed through mobile devices or computers, which greatly encourage consumers to use OFDA services in their daily food consumption. The consumers enjoy these applications and their delivery services because it brings greatest convenience in their daily lives. According to Yellow Bees (n.d.), there are 12 top food delivery marketplaces in Malaysia. Figure 1.1 provides a comparison of these online food delivery platforms.



Brand	Type	App Installs	Web Order	Coverage	Distance	Own Logistics	Demographics	Service Fees
GrabFood	Super app	100,000,000	Yes	Major cities nationwide	10km	Yes	All	Up to 30%
Foodpanda	Food & grocery delivery	50,000,000	Yes	Major cities nationwide	Depends on restaurants	Yes	All	25-35%
ShopeeFood	Super app	10,000,000	Yes	Klang Valley	N/A	Yes	All	20%
airasia food	Super app	10,000,000	Yes	Klang Valley, Penang, Ipoh	60km	Yes	All	15%
EASI (Hungry)	Food & grocery delivery	500,000	No	Selected cities	N/A	Yes	Chinese	N/A
Bungkusit	Food & parcel delivery	500,000	No	KV, PG, Terengganu, Ipoh, Johor	N/A	Yes	Malay	20%
DeliverEat	Food delivery	100,000	Yes	Penang, Klang Valley	7km	Yes	All	30%
LOLOL	Food & grocery delivery	100,000	Yes	Klang Valley, Melaka, Johor	40km	Yes	Chinese	3%
GemSpot	Table booking & food delivery	100,000	No	Klang Valley	40km	Partner	All	20%
Beep Delivery	Food delivery	50,000	Yes	Klang Valley, Penang, Johor	20km	Hybrid	All	Up to 20%
Tapau	Food delivery	50,000	Yes	Northern Region etc.	N/A	Yes	Malay	N/A
OdaMakan	Food delivery	50,000	Yes	Kelantan & other selected cities	10km	Yes	Malay	20%

Note: Data updated in Sep 2021

YELLOW BEES

Figure 1.1: Comparison of Food Delivery Platforms in Malaysia in 2021, Yellow Bees (n.d.)

The COVID-19 pandemic has changed the way the food service sector operates and triggered new trends to meet the demand for more socially isolated food consumption. As OFDA grow in popularity in Malaysia, so does the emergence of food delivery services. Amidst the COVID-19 restrictions, it has become increasingly common for Malaysians to opt for food delivery services (Rosman, Yapp, & Kataraian, 2022). The pandemic also contributed to the growth of food delivery apps through increased demand for delivery, closure of dine-in restaurants, convenience, and safety concerns, and food delivery apps have only continued to become more popular since then, with the highly competitive Malaysian food delivery market projected to grow by 14.28% in the coming years (Poon & Tung, Hui En, 2022; Surya, Sukresna, & Mardiyono, 2021; Tan, Lim, & Yeo, 2021). Some of the major players include GrabFood, foodpanda, DeliverEat, and Bungkusit. These apps have been expanding their services in Malaysia, partnering with more local restaurants, and offering a range of promotions and discounts to attract more customers. This emerging trend has prompted many restaurants to explore using OFDA to enhance their customer service.

However, when the government allowed restaurants to reopen, mobile food delivery apps declined slightly as Malaysians rushed to dine at restaurants. It was claimed that the intention to use OFDAs reduced by 17 per cent when the MCO was lifted (Statista, 2021). Thus, it should be investigated whether the growth trend continues. Although it has made it easier for customers to buy food, understanding the factors that drive the intention to use OFDAs needs further research (Rosman et al., 2022).

Despite the significance of OFDA in Malaysia and the shifting consumer behaviour towards these services, only a few studies have investigated consumers' behavioural intentions to use OFDA in Sarawak. Most of those studies were done in major urban areas such as Kuala Lumpur, the Klang Valley, and Johor Bahru (Pitchay et al., 2021; Chai et al., 2019; Ramli, Ghani, Nawawi, & Majid, 2021). Although the OFDA industry seems very promising, the nature of this market is poorly understood (Agus, & Aceh, 2020;Yeo, Goh, & Rezaei, 2017), especially in the context of Sarawak. Therefore, there is a need to conduct a study in the Sarawak context to examine the factors associated with using OFDA. Given the explosive growth of food delivery apps, it is critical to examine this phenomenon holistically, particularly with the Sarawak context in mind and with particular attention to the factors that drive customers using OFDA even after the pandemic. With this in mind, this study pursued to examine the factors influencing users' intention to use food delivery applications.

1.3 Problem Statement

Contextual Gap

Despite the significance of OFDA in Malaysia and the shifting consumer behaviour towards these services, only a few studies have investigated consumers' behavioural

intentions to use OFDA in Sarawak. Most of those studies were done in major urban areas such as Kuala Lumpur, the Klang Valley, and Johor Bahru (Pitchay et al., 2021; Chai et al., 2019; Ramli, Ghani, Nawawi, & Majid, 2021). Although the OFDA industry seems very promising, the nature of this market is poorly understood (Agus, & Aceh, 2020;Yeo, Goh, & Rezaei, 2017), especially in the context of Sarawak. Therefore, the Sarawak government is serious about improving the e-commerce delivery system in the state (Lim, 2021). Thus, the development of the digital economy through Sarawak Digital Economy Corporation (SDEC) has taken a further step ahead to ensure that the state keeps up with the technological advancements. The Sarawak Digital Economy Strategy is formulated to help the state achieve a high-income status through digital transformation. However, one of the issues faced by the state is that the public is yet to accept the digital world (Jugah, Yi, Yusuf, Alfred, & Sawai, 2022). Different income groups have different levels of acceptance towards the implementation of the Sarawak Digital Economy Strategy. Low-income groups have yet to fully utilise the available digital economy compared to high income groups. It was reported that the household monthly income's poverty range was from RM980 to RM2208, and Sarawak had a very high number of families living in poverty (Stephen, 2020). Moreover, due to underdeveloped infrastructures, Sarawak has continued to face challenges with a lack of a supportive ecosystem such as the availability of local technology, skilled talent, efficient supply chain, attractive incentives, and lower production costs (Poovenraj, 2020). In addition, online fraud crime cases have been on an increasing trend, with the number of cases rising by 92.16 per cent from 1,462 cases in 2020 to 2,816 cases in 2021, as reported by Jabatan Siasatan Jenayah Komersil (JSJK) Sarawak. It is equivalent to an increase in losses to RM7.1 million, in which a loss of RM3 million is attributable to 667 cases involving fraudulent purchases on the internet (e-commerce) platform (Utusan Borneo Online,2022).

Therefore, this study intended to determine the impact of technology acceptance factors that influencing the behavioural intention to use and usage of OFDA in the Sarawak context.

Conceptual Gap

Based on the discussion on the contextual gap section, this study sought to examine the relationship between users' of behavioral intention to use and their usage of OFDA in the Sarawak context. This is because relatively few studies have investigated the usage of OFDA in the aforesaid context. It is important to study the factors affecting the intention to use this technology in the food segment (Alalwan, 2020a; Tandon, Kaur, Bhatt, Mäntymäki, & Dhir, 2021). Therefore, the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model was adopted as a theoretical base that comprehensively captured the components of technology acceptance factors (Tamilmani, Rana, Wamba, & Dwivedi, 2021). Some studies have empirically proven the existence of significant relationships between technology acceptance factors and consumers' behavioural intention to use OFDA (see Gârdan et al., 2021; Alalwan, 2020a; Jasim, Kasim, & Mahmoud, 2022; Muangmee, Kot, Meekaewkunchorn, Kassakorn, & Khalid, 2021; Puriwat & Tripopsakul, 2021;Ramos, 2022; Zanetta et al., 2021; Zhao & Bacao, 2020).

Moreover, users are also sceptical about using online food delivery services due to several risks and trust issues that are associated with online food delivery platforms (Cai & Leung, 2020; Hwang & Choe, 2019). However, the research done thus far on online food delivery has not looked at how consumers' reactions to online food delivery platforms are affected by the trade-off between the advantages and disadvantages of using these platforms (Hwang & Kim, 2019; Jebarajakirthy et al., 2021; Shankar et al., 2022). Therefore, this study using UTAUT 2 model and included two additional variables, namely trust and risk, in order to determine the influences of OFDA usage. Furthermore, some studies have empirically

proven that trust and risk have a significant relationship with consumers' behavioural intention to use OFDA (Muangmee, Kot, Meekaewkunchorn, Kassakorn, & Khalid, 2021; Puriwat & Tripopsakul, 2021; Ramos, 2022; Zanetta et al., 2021).

Substantial research has been done on consumers' usage of OFDA, from the previous studies of Ifedayo, Ziden, and Ismail,(2021) expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. It is important to note here that, to the best of researcher's knowledge, lack of studies have examined the mediating effect of behavioral intention to use behaviour adopting UTAUT 2 framework in online food delivery applications context. Therefore, the conceptual framework provides a new structure to enhance one's understanding of the mediating effect of behavioural intention to use on the relationships between the technology acceptance factors namely performance expectancy, effort expectancy, social influence, facilitating condition, price value, habit, hedonic motivation, trust, risk and OFDA usage. Further, previous research has suggested that demographic factors influence how people use new technologies (Tandon, Dhir, Kaur, Kushwah, & Salo, 2020a, 2020b; Tandon, Jabeen, Talwar, Sakashita, & Dhir, 2021; Tandon, Kaur, et al., 2021). Age and gender have been suggested as important factors to consider (Talwar, Dhir, Kaur, & Mäntymäki, 2020; Talwar, Dhir, Kaur, Zafar, & Alrasheedy, 2019).

Moreover, the most important moderating effects that the literature has deemed relevant to the adoption of new technology were incorporated (Liébana-Cabanillas, Singh, Kalinic, & Carvajal-Trujillo, 2021). The demographic variables play an important part in

influencing people's behaviors, however analyses regarding the moderating effect of demographic variables are somewhat limited (Talukder, Aroos-Sheriffdeen, Khan, Quazi, & Abdullah, 2023). Paul & Spiru, (2021) argue that demographic factors do not influence the adoption and usage of new technology. Nevertheless, there is overwhelming empirical evidence in recent studies showing that demographic factors has an influence on technology adoption (AlHadid et al., 2022; Kasilingam & Krishna, 2021; Talukder et al., 2023). Therefore, originally the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model as moderators between behavioural intention to use and technology usage in the context of online food delivery applications. Thus age, gender and experience has included as a moderators to test the relationships between these variables in the Sarawak context.

1.4 Research Objectives

The main objectives of this study are to determine the relationships between technology acceptance factors and behavioural intention to use, as well as to determine the relationship between behavioural intention to use and usage of OFDA. Further, the study sought to determine mediating effect of behavioural intention to use between technology acceptance factors, trust, risk, and OFDA usage. Lastly, this study intended to determine the moderating effect of age, gender, and an experience between behavioural intention to use and OFDA usage. Accordingly, this study was designed to accomplish the following specific objectives:

1. To determine the relationships between technology acceptance factors and behavioural intention to use (BI) online food delivery applications.
2. To determine the relationship between behavioural intention to use (BI) and usage of (UB) online food delivery applications.
3. To determine the mediating effect of behavioural intention to use (BI) in the relationships between technology acceptance factors and usage (UB) of online food delivery applications.
4. To determine the moderating effect of age, gender, and an experience in the relationship between behavioural intention to use (BI) and usage (UB) of online food delivery applications.

1.5 Research Questions

1. Do technology acceptance factors have a significant relationship with behavioural intention (BI) to use online food delivery?
2. Does behavioural intention to use (BI) have a significant relationship with usage (UB) of online food delivery applications?
3. Does behavioural intention to use (BI) mediate the effects of relationship between technology acceptance factors and usage (UB) of online food delivery applications?
4. Do age, gender, and an experience moderate the effects of relationship between behavioural intention to use (BI) and usage (UB) of online food delivery applications?

1.6 Definitions of Term

This study uses several significant terms, all of which need to be understood with regard to their definitions, meaning, and overall concept. The frequently used terms are as follows:

Performance Expectancy

Performance expectancy is the anticipation of a user, in which a person feels that by utilising a system, they would be able to improve their task or professional performance. This may be thought of as an individual's belief that they will be able to get better results as a result of using the system. Therefore, people are more willing to use new technology if they believe it will increase their performance at work. This is because people tend to be more optimistic about their own abilities (Venkatesh, Morris, Davis, & Davis, 2003; Venkatesh, Thong, & Xu, 2012). According to Ramos (2022), on the intention towards food delivery apps could be predicted by the elements of performance expectancy, believed that users perceived as an increased benefit, such as saving the time and effort needed to prepare meals. Therefore in this study, performance expectancy can be defined as the degree to which a users in Sarawak believes that using OFDA contributes to better performance.

Effort Expectancy

A system's ease of use can be defined as having a specific effort expected in relation to the degree of simplicity associated to the operation of the system. This can also be thought of as having a given level of simplicity. Customers may have the impression that there are some challenges associated with the utilisation of the technology when they first begin various tasks (Venkatesh et al., 2003). Therefore, the structure of an online food delivery application and its capacity to effectively execute the online food orders placed by customers are the most critical factors in determining whether or not a consumer would make a purchase from that particular online food delivery application (Gunden, Morosan, & DeFranco, 2020a, 2020b; Saad, 2021). Therefore, a user's intention to utilise the OFDA could be influenced by their view of how easy and uncomplicated it is to use those services

on their mobile device. Therefore in this study, effort expectancy can be defined as the degree to which a users in Sarawak thinks an OFDA is user-friendly.

Social Influence

Social influence refers to the extent to which an individual considers the perspectives of other people to be essential in modifying their behaviour towards using a new system (Venkatesh et al., 2003). Individual's decision to use particular technology may also be influenced by the views of other people such as family members, friends, and co-workers, and this phenomenon is a reflection of social influence. Jasim et al. (2022) indicated that effect of social influence on the customers' behavioural intention have an important relationship on the consumers' intentions. According to what was discussed, user's ability to motivate themselves may improve if they are surrounded by a certain degree of support from individuals in their personal and professional lives, such as family members, friends, and coworkers. Therefore in this study, indicates how strongly a users in Sarawak feels that they should use OFDA based on the opinions of the people who matter to them, such as their family, friends, and coworkers.

Facilitating Condition

The extent of use and the level of customer satisfaction with the technology applications are largely determined by the amount of readily available technical infrastructure and human support (Venkatesh et al., 2003). Zanetta et al. (2021) revealed the influence of facilitating conditions on continuance intention was significantly stronger in the context of OFDA in Brazil due to sufficient information technology infrastructure provided for technology support. This situation will encourage consumers to use the technology. Therefore, when establishing the facilitating conditions, elements like the availability of money and time, as well as knowledge and resources for using OFDA, could have an impact

on one's decision to continue using it. Therefore in this study, the extent to which a users in Sarawak is willinglly to accept that the relevant stakeholder that would provide technical assistance, such as internet connection and knowledge, for the OFDA usage.

Price Value

Price value defined as the cognitive exchange between the perceived benefits of an application and the monetary cost of using it (Venkatesh, Thong, & Xu, 2016). When users believe that the value they receive from using an OFDA is greater than the cost of using it, the price value has a positive influence on their intention to use the OFDA to purchase food and beverages. As previous research has suggested that the use of applications for online food delivery does not incur any kind of financial cost, as there is no additional fee that must be paid for the installation of a free OFDA (Alalwan, 2020b; Shaw & Sergueeva, 2019). However, customers can obtain significant monetary savings through loyalty programmes or discounts, availability of comparative prices, and simplicity of choosing (Koiri et al., 2019; Tomacruz & Flor, 2018; Jain, Verma, & Jaggi, 2020; Saad, 2021). Therefore in this study, can be defined as the level to which users in Sarawak feel that use of OFDA will result in cost reductions.

Hedonic Motivation

Hedonic motivation can be stated as playfulness, enjoyment, fun, and pleasure resulting from using new products, services, and applications (Venkatesh et al., 2012). For instance, applications such as mobile food ordering apps (MFOAs) are regarded as being cutting-edge and innovative, which may give customers a sense of satisfaction and pleasure when utilising the innovative new software (Okumus, Ali, Bilgihan, & Ozturk, 2018b; Yeo, Goh, & Rezaei, 2017b). Therefore, hedonic motivation might had a positive effect on how users saw the convenience and usefulness of OFDA. For example, how customers felt about

how much fun they were having affected their desire to use mobile online food delivery apps (Yeo et al., 2021). Therefore in this study, can be defined as the extent to which an users in Sarawak feels fun or feels motivated about using OFDA.

Habit

Limayem, Hirt, and Cheung (2007) defined habit as an individual's propensity to act without a conscious thought as a result of the individual's accumulated learning experience. People are becoming more dependent on their smartphones and have developed a pattern of behaviour regarding the use of the mobile applications that are associated with them. The formation of habitual behaviour as a result of learning experience, could have an impact on users' attitudes and beliefs, which, in turn, predict their continued intention to behave in the same manner as they did in the past. In addition, the effect of habit on intention is might dependent on awareness with OFDA. This means that intention develops as an individual becomes more aware of OFDA (Zanetta et al., 2021a). Therefore in this study, it is the extent of repeated previous experiences which are linked to the level of interactions and which develop familiarity in using OFDA.

Trust

In the context of online commerce, trust was defined as the subjective probability that customers expect a web merchant to carry out a specific transaction in accordance with their confident expectations (Pavlou, 2002). It would appear that the suitability of technology in terms of its fit, perceived trust, and operational period should be examined in order to improve the overall success of online food delivery apps. This is particularly important in light of the fact that these applications are becoming increasingly popular (Muangmee et al., 2021; Wen, Pookulangara, & Josiam, 2022). Therefore in this study, it is the extent of previous repeated experiences which are linked to trust when using OFDA.

Risk

A person's risk perception can be defined as their comprehension and judgement of the potential unfavourable consequences that could be the result of technology usage (Dowling & Staelin, 1994). Hwang and Choe (2019) establish that perceived risk had a positive influence on the intention to use and the willingness to pay more in the context of drone delivery service. The most important contribution of the study is pertaining to the suggestion to foodservice companies providing this apps services on how to reduce the perceived risk of their services. Hwang and Choe (2019) establish that perceived risk had a positive influence on the intention to use and the willingness to pay more in the context of drone delivery service. Therefore in this study, how well a users in Sarawak knows and thinks about the positive things that might happen if they use OFDA.

Behavioral Intention to Use and Usage

Behavioural intention evaluates a user’s likelihood to perform a future action (Venkatesh et al., 2003, 2016). It can also be referred to as a person’s propensity to use technology or to maintain current level of technology use in the perspective of diferent factors or determinants that may impact technology use (Tang, Gong, & Liu, 2022). Other study uses customers’ stated intentions to predict their usage patterns (Alassafi, 2022). In other word, acceptance begins when a person first encounters a new technology. This is because acceptance is a process that builds on familiarity. In later stages, the significance of other choice variables will become more apparent. Therefore in this study, referring as to examine the users in Sarawak maintain current level of OFDA usage in the perspective of diferent factors or determinants that may impact technology use. The interest in use will increase as each belief uses OFDA in their food and beverages purchases.

1.7 Significance of Study

Based on theoretical significance, in order to get a comprehensive picture of the factors contributing to the acceptance of OFDA among users in Sarawak, the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) formulated by Venkatesh et al., (2012) has been used as a theoretical framework to develop a research framework for this study. The UTAUT 2 integrates several main constructs in order to predict individual's intention and use of certain new technology. Basically, this theory opined that behavioural intention may influence one's decision to use a new technology. Here, the propensity that an individual to accept a new technology rely on the direct effect of seven main constructs (performance expectancy, effort expectancy, social influence, facilitating condition, habit, hedonic motivation and price value). Yet, it was determined that the original UTAUT 2 model needed some expansion by adding several components in order to adequately represent the behaviours of customers who purchase food using online food delivery application. This was done to make sure that the model could correctly predict what would happen in the future (Tamilmani et al., 2021). Therefore originally, seven components of the UTAUT 2 model by Venkatesh et al., (2012), namely performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, habit and price value were used as the determinants of technology acceptance factors in this study. Apart from that, based on previous findings, trust and risk were added as the determinants of technology acceptance factors (Gupta & Duggal, 2021; Hamid, Azhar, & Sujood, 2022; Jasim et al., 2022).

Additionally, from the previous studies of Ifedayo, Ziden, and Ismail,(2021) expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng,

(2022) reported intention as the core mediator between intention and behavior. It is important to note here that, to the best of researcher's knowledge, lack of studies have examined the mediating effect of behavioral intention to use behaviour adopting UTAUT 2 framework in online food delivery applications context. Therefore, the conceptual framework provides a new structure to enhance one's understanding of the mediating effect of behavioural intention to use on the relationships between the technology acceptance factors namely performance expectancy, effort expectancy, social influence, facilitating condition, price value, habit, hedonic motivation, trust, risk and OFDA usage. Moreover, originally the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model as moderators between behavioural intention to use and technology usage in the context of online food delivery applications. Thus age, gender and experience has included as a moderators to test the relationships between these variables.

In addition based on practical significance, the Sarawak government has mentioned that the government itself has serious about improving the e-commerce delivery system in the state (Utusan Borneo Online, 2021). Thus, the development of the digital economy through Sarawak Digital Economy Corporation (SDEC) has taken a further step ahead to ensure that the state keeps up with the technological advancements. The Sarawak Digital Economy Strategy is formulated to help the state achieve a high-income status through digital transformation. However, one of the issues faced by the state is that the public is yet to accept the digital world (Jugah, Yi, Yusuf, Alfred, & Sawai, 2022). Therefore,

policymakers and stakeholders in Sarawak need a better knowledge of the factors driving the use of OFDA and contributing to the digital economy of the state. This development is in line with the state's digital policy of ensuring Sarawak keeps up with technological advancements. It is also parallel with the Sarawak Digital Economy Strategy, which aims to attain a high-income status for the state through digital transformation. However, the sector is also confronted with a number of challenges that require the policymakers to develop and improve the guidelines and initiatives in order to propel the growth of the OFDA service industry in the aforesaid context. For instance, due to underdeveloped infrastructures, Sarawak has continued to face challenges with a lack of a supportive ecosystem such as the availability of local technology, skilled talent, efficient supply chain, attractive incentives, and lower production costs (Poovenraj, 2020). Therefore, the finding from this study provide application developers with guidelines, particularly those involved in OFDA. Such as the service providers that offered online food delivery applications services need to understand the importance of performance expectancy, effort expectancy, social influence, facilitating condition, habit, price value, hedonic motivation, trust and risk to users, especially if they want to encourage users to use OFDA in Sarawak. The usage of OFDA encourages the adoption of digital technology among both businesses and consumers, contributing to the overall technological development of Sarawak. As well as, the adoption of OFDA allows restaurants in Sarawak to adapt to changing consumers behaviours, including the increasing demand for digital and contactless services. These guidelines will make it easier for application developers to comprehend the elements that influence the utilisation of OFDA. It is essential to acknowledge that OFDA are a part of the distribution channels utilised by restaurants to satisfy the requirements of their customers and to encourage and increase the level of restaurant customer engagement. Thus, food delivery applications providers can

improve their systems. While OFDA offer various benefits, it's essential to balance their growth with considerations for fair nosiness practices, sustainability and the impact on traditional dining establishment. A better understanding of the factors influencing the usage of OFDA among users is important to the policymakers and stakeholders in Sarawak. Therefore, they should work together to create a regulartory environtment that ensures the positive contributions of these platforms while addressing potential challenges. New applications for online food delivery are not only appearing in Sarawak but also making a contribution to the digital economy of the state. This development is in line with the digital policy that seeks to ensure the state keeps up with technological advancements where the Sarawak Digital Economy Strategy has been formulated with the aim of achieving a high-income status for the state through digital transformation.

1.8 Scope of Study

This study intended to examine the relationships between the technology acceptance factors, behavioural intention to use, and the usage of OFDA. The study expected the behavioural intention to use mediate the relationships between technology acceptance factors and usage of OFDA. Also, three moderator constructs, namely age, gender, and experience were moderate the relationship between behavioural intention to use and usage of OFDA.

The sample population of this study was limited to the OFDA users in Sarawak and the selection of respondents was based on Foodpanda and GrabFood coverage areas. The choice was due to the popularity of Foodpanda (70.36%) and GrabFood (63.19%) among users due to the user-friendliness of the applications (Tan et al., 2021). Also, these two

operators are available in major urban cities in Sarawak, such as Petrajaya, Kuching, Samarahan, Miri, Bintulu, and Sibu.

This study was a cross-sectional investigation in which data were collected at a single time point. The data was collected within a period of three months starting from December 2022 until March 2023. The data analysis will be conducted using Structural Equation Modelling (SEM).

1.9 Organization of Thesis

Chapter 1 discusses the study's background, problem statement, research questions, and research objectives, definitions of terms, scope, and significance of the study.

Chapter 2 discusses the literature review comprising the underpinning theory for this study, the factors influencing behavioural intention to use and usage in the context of online food delivery applications, hyphotheses development, and proposed conceptual framework.

Chapter 3 outlines this study's approach. The research design and data gathering procedure are explained. The sampling strategy, research instrument, and questionnaire construct measurements are also discussed. Discussing data processing processes improves survey instruments and reduces errors. Finally, data analysis approaches are studied to explain structural model validity and reliability.

Chapter 4 covers data analysis and results. This chapter examines descriptive analysis, empirical findings, and survey respondent profiles. CFA results for the measurement model are shown. This research's structural models evaluate the hypothesised

direct and indirect effect (mediation and moderation). The chapter concludes with a results summary.

Chapter 5 summarises the study's findings and hypotheses. Theoretical and practical contributions, study limits, and future research are also discussed.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the past studies relating to the relationships between technology acceptance factors, behavioural intention to use, and OFDA usage. Then, the chapter proceeds with a discussion of the relationships between the demographics factors, namely age, gender, and experience, and the behavioural intention to use OFDA. The aim is to provide a brief overview, including a critical evaluation, of the sources related to the issue being investigated and justifications for the study.

2.2 Online Food Delivery Applications (OFDA)

This study focused on the subject of online food delivery, with an emphasis on the third-party platforms of Foodpanda and GrabFood. These are two examples of food delivery companies that are considered to be in the category of online platform-to-consumer delivery. The idea that underpins this business model is that the customer can place the order directly on the web platform run by a third party. Online delivery services are provided by these third-party platforms on behalf of their partner restaurants, who may or may not offer delivery services themselves. In this situation, restaurants avail themselves to a model that provides an approach for meal delivery that is not only effective but also economical. Businesses like Uber Eats and Rappi, which are both run by independent contractors, are good examples of this type of enterprise (Pitchay et al., 2021; Li, Mirosa, & Bremer, 2020).

Thus, online food delivery applications (OFDA) are a type of web-based service that is mostly accessible through mobile devices. These applications offer services that allow

customers to order meals to be delivered to their homes (Ray, Dhir, Bala, & Kaur, 2019). Customers now have access to a broader variety of options and enjoy a higher level of convenience as a result of the proliferation of online food delivery services. Customers can use these services to place orders with a variety of eateries using their mobile devices. Customers who are accustomed to making purchases online or through mobile apps are increasingly anticipating having a similar experience when they place orders for food and beverages (Shankar et al., 2022).

Aside from that, having food delivered to one's home or place of business through an internet service has become a significant and valued alternative for a growing number of the population (Kumar, Jain, & Hsieh, 2021). Mobile applications that are location-based offer users with real-time access to information and services that are relevant to their current locations. One example of this type of mobile application is online food delivery applications (Dirsehan & Cankat, 2021). As a direct consequence to this, ordering and receiving food from restaurants is simplified by the use of online food delivery (Dirsehan & Cankat, 2021). The apps used for online food delivery manage a variety of tasks, such as order payment, tracking, and monitoring (Gupta & Duggal, 2021). According to the findings of some researchers, factors such as a high demand for workers and the prevalence of one-person households have all played a role in the growing of the OFDA market (Saad, 2021).

The percentage of the market demand by OFDA has increased intensely over the past few years. These services are becoming increasingly competitive, particularly among younger people who own smartphones and are accustomed to using various mobile applications. The conveniences offered by online food delivery services, such as the presentation of a list of restaurants and the sorting of food items based on price, distance,

and projected delivery time, including the anticipated time for producing the food dish, contribute to the allure of these services. Additionally, the rising amounts of discretionary incomes available to consumers also play a role in increasing the popularity of these services (Pandey, Chawla, & Puri, 2022).

Food delivery services are typically offered by three types of players, namely super apps, pure food (and grocery) delivery platforms, and internet technology companies. Since the actual number of customers is undisclosed, the number of app installs can be used to benchmark and rank the popularity of the food delivery marketplaces. This is also because food delivery services are predominantly offered on mobile apps. The study recognises that it would be more accurate to use daily or monthly active users to measure the popularity of the apps. Further, app installs totals for players like GrabFood and Foodpanda are contributed by multiple markets, and users who install Shopee are currently using them for online shopping. Nevertheless, it is still reasonable to use app installs (Google Play only) to rank the food delivery platforms and benchmark the size of their customer base.

2.2.1 Trend of Using OFDA

As more people have access to the internet and the rapid penetration of smartphones has led to the growth of OFDA which let customers order food online and have it delivered (Cho et al., 2019a; Zhao & Bacao, 2020). Cho et al. (2019) argues that OFDA is an innovative way that allows consumers to purchase a wide range of food selection via platform(s). OFDA platforms collect orders from consumer and pass on the information to restaurants and delivery personnel (Troise et al., 2021). This opens up new opportunity for restaurants to reach new market while increasing their revenues and consumers the convenience of having food delivered to their home. In addition, because of the increase in

economics activity created by technology companies that fulfil consumer demand via the immediate delivery of goods and services, OFDA have become very popular and rapidly increasing market, and the size of the global market reached around US$100 billion in 2019 and the revenue is expected to increase to US$164.5 billion by the year 2024 (Muangmee et al., 2021). Further, the global online food-delivery sector is anticipated to grow to US$223.7 billion by 2027, with a 11.44% of compound annual growth rate (CAGR) (Statista, 2022).

Before the COVID-19 pandemic, majority of urban consumers are warming up to the concept of OFDA. This trend had a major shift with multiple regions reporting a surge in OFDA services, such as an increase 65% for Asia Pacific region, 21% for North America, 23% for Europe and 150% for Latin America region (Statista, n.d.). The new behaviour imposed will most likely remain as long-term behaviours, altering consumer's behaviours permanently. In 2020 and 2021, due to strict lockdown order, OFDA had cemented itself as the most significant trend around the world representing a significant shift from frequenting restaurant to ordering food online (Durai, n.d.). During the COVID-19 lockdown, consumers bought almost everything online, and food delivery has became indispensable (Yi & Chiu, 2023). People have proceeded from ordering takeaways in person to stores to takeaways by phone and ordering food online and with mobile devices (Shroff et al., 2022). Thus, the world's food consumption behaviors are changing dramatically. Until 2021, food delivery has become a global market worth more than USD 150bn, tripling since 2017 (Ahuja Al.," n.d.). Nonetheless, starting in late 2019, because of the COVID-19 pandemic, the whole environment of online food delivery platforms has undergone significant changes. Thus, online food delivery platforms have sensed an opportunity, providing discounts and perks to entice customers to order online instead (Magramo & Lo, 2022).

2.3 Theoretical Background

This section reviews and discusses the theoretical underpinnings for the conceptual model's development, the chronological background of user acceptance and use of technologies that contribute to the formulation of the UTAUT 2 model, and the two additional constructs comprising trust and risk.

2.3.1 UTAUT 2 Model

One of the widely used models for information, communication, and technologies acceptance is UTAUT model, which relies on the strengths of Technology Acceptance Model, Innovation Diffusion Theory, Theory of Reasoned Action, Motivation Model, Theory of Planned Behaviour, Model of PC Utilization, and Social Cognitive Theory. (Venkatesh et al., 2003). Venkatesh et al. (2003) claimed that the UTAUT model could explain 70% of technology acceptance behaviour consisting of performance expectancy, effort expectancy, social influence, and facilitating conditions, have a relationship with intention to use.

The emergence of consumer technologies necessitated an extended original UTAUT model to the consumer context with an emphasis on hedonic values, for example, the intrinsic motivation of technology users. It was based on consumer behaviour and information system research that theorised and found various constructs related to hedonic motivation, which is an important determinant of consumer products or technologies usage. The integration of hedonic motivation into the UTAUT model complements the model as a strong predictor of utility. Further, cost is another important factor that can dominate consumers' adoption decisions. Thus, the addition of a construct related to price or cost also complements UTAUT model existing resource considerations that focus on only time and

effort. Recent studies have also disputed behavioural intention as the main predictor of technology use and offered a new theoretical construct, habit, as another important predictor (Venkatesh et al., 2012).

Hence, the UTAUT 2 model model has much higher predictive ability than UTAUT model, explaining about 74 per cent of the variance in consumers' behavioural intention and 52 per cent of the variance in consumers' technology usage of focal technology (Venkatesh et al., 2016). The constructs of UTAUT 2 model are as follows:

1. Performance expectancy: defined as the degree to which a person thinks that a new product or tool will help them do their job better (Gunden et al., 2020a; Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
2. Effort expectancy: refers to the degree to which a system is simple and straightforward to use (Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
3. Social influence: the degree to which a person believes that the opinions of those who are important to them regarding whether or not they should use a new product or technology (Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
4. Facilitating condition: the degree to which a person feels confident that the organisation will provide technical help for a system they are using (Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
5. Hedonic motivation: the enjoyment or satisfaction obtained through the technology usage (Palau-Saumell et al., 2019; Venkatesh et al., 2012).
6. Price value: The quality of the suggested product or service and the perceived benefits of using that product or service affect how the price or cost is seen (S. W. Lee et al., 2019a; Palau-Saumell et al., 2019; Venkatesh et al., 2012).

7. Habit: the ability of people to carry out actions automatically as they get used to a new technology (Gunden et al., 2020a; Limayem et al., 2007; Palau-Saumell et al., 2019; Venkatesh et al., 2012).

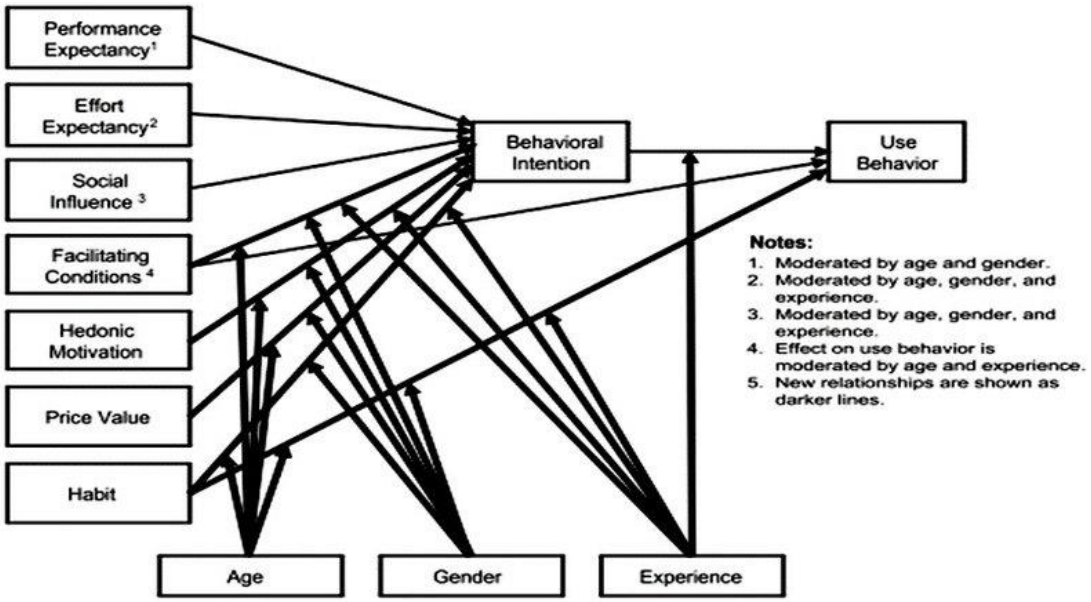


Figure 2.1: UTAUT 2 Model, by Venkatesh et al., (2012) p.157-178

Since UTAUT 2 model incorporates the existing theories, it has better predictive value than any one individual theory (Dwivedi, Rana, Jeyaraj, Clement, & Williams, 2019; Dwivedi, Rana, Tamilmani, & Raman, 2020; Tamilmani et al., 2021). Several researchers have used this model as a foundation model in their studies (see Jasim et al., 2022; Ramos, 2022; Palau, Coll, García, & Robres, 2019; Zanetta et al., 2021; Alalwan, 2020; Muangmee, Kot, Meekaewkunchorn, Kassakorn, & Khalid, 2021; Lee, Sung, & Jeon, 2019; Zhao & Bacao, 2020; Puriwat & Tripopsakul, 2021; Gârdan et al., 2021). Therefore, this study adopted UTAUT 2 model as the base for its investigation of the factors influencing usage of OFDA in Sarawak.

2.3.2 Extended UTAUT 2 Model

The UTAUT 2 model provides a theoretical base to broaden the scope by introducing components that capture the uniqueness of OFDA, however the extended version of UTAUT 2 model was adopted due to its beneficial for explaining why individuals continue to use the apps service (see Jasim et al., 2022). Yet, it was determined that the original UTAUT 2 model needed some expansion in the form of additional components in order to adequately represent the behaviours of customers who purchase food from an OFDA context. This was done in order to ensure that the model could accurately predict future outcomes (Tamilmani et al., 2021).

Since the majority of studies have specified new modifications to UTAUT 2 model while ignoring the potential extensions with novel contributions, it has been emphasized that it is required to emphasis on a novel contribution via new conceptualisations of technology acceptance and use and/or of new phenomena. This is because this model has been the topic of a significant number of investigations, and yet, the bulk of these studies have neglected the possibility that UTAUT 2 model could be extended with unique contributions (Venkatesh et al., 2016).

An in-depth review of the related literature shows that UTAUT model , UTAUT 2 model, Theory of Planned Behaviour, and Technology Acceptance Model have been the commonly used theories in online food delivery research (Shankar et al., 2022). The primary focus of these theories is to investigate how consumers are influenced by a wide variety of socio-psychological and contextual factors to adopt OFDA. However, it appears that the existing online food delivery literature has, for the most part, ignored a number of constructs that can potentially be used in future research. Based on a synthesis of the existing research

on online meal delivery, customers' reactions to online food delivery services are influenced by several factors, including the benefits and the costs of using these services. Customers benefit from convenience (Shah, Yan, & Qayyum, 2021), discounts and special promotions (Wang & Scrimgeour, 2022), ease of use (Hong, Choi, Choi, & Joung, 2021), and perceived usefulness (Troise, O'Driscoll, Tani, & Prisco, 2021) from online food delivery platforms, which have elicited positive feedback from customers regarding their online food delivery services.

There are suggestions for consumers to be sceptical about using online food delivery services due to the numerous risks linked with online food delivery platforms. However, it has not studied how the trade-off between benefits and costs affects consumers' reactions to platforms (Cai & Leung, 2020; Hwang & Choe, 2019). Shroff, Shah, and Gajjar (2022) and Shankar et al. (2022) conducted a literature study on online food delivery and discovered that customers had unfavourable perceptions of the risk and level of trust associated with using online food delivery services, which, in turn, made them less likely to the apps. Consumers were also found to have a tendency to accept a new technology if they believed that it would provide them with a greater number of benefits than the costs it would entail (Hwang & Kim, 2019; Jebarajakirthy et al., 2021; Shankar et al., 2022).

In addition, because people use online apps to place their orders, they are susceptible to the numerous threats associated with online food delivery applications (Hwang & Choe, 2019; Hwang & Kim, 2019; Hwang, Lee, & Kim, 2019). Findings indicate that consumers' perceptions of the risk involved are the main impediments that hamper the widespread adoption and utilisation of online food delivery services (Cai & Leung, 2020; Hwang & Choe, 2019). Concerns about consumers' privacy are sparked when they are required to

disclose sensitive information such as their names and bank account numbers on the platforms that facilitate online food delivery applications services (Islam, Jebarajakirthy, & Shankar, 2019; Kumar et al., 2021; Shankar & Jain, 2021).

Therefore, it is essential to investigate the role of risk in influencing how customers react to the food delivery services offered online. Moreover, an unintended consequence of online food delivery platforms is the information failure between platforms and restaurants which can reduces service efficiency, as the orders are received by platforms and fulfilled by the restaurants without any integration (Dai, Ge, & Liu, 2020). Thus, automated food delivery is an outcome of the coordination between platforms, food delivery drivers, and restaurants (Richardson, 2020). Therefore, in order to study the association between users' behavioural intention to use and OFDA usage, this study integrated the trust and risk variables with technology usage. Hence, with regard to this investigation, the potential for assessing the actual usage would be an important development for future research, which have not been considered despite their ability to contribute to an improved knowledge of the OFDA context.

2.4 Technology Acceptance Factors Affecting Behavioral Intention to Use (BI)

Behavioural intention evaluates a user's likelihood to execute a future action (Venkatesh et al., 2003, 2016). According to Bhattacherjee (2001) and Bhattacherjee and Lin (2015), people's intentions to use a technical product or service are analogous to repeat purchases; however, the acceptance of technology and the continuation of its use are two completely separate concepts, both conceptually and historically. Behavioural intention evaluates a user's likelihood to perform a future action (Venkatesh et al., 2003, 2016). It can also be referred to as a person's propensity to use technology or to maintain current level of

technology use in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Other study uses customers' stated intentions to predict their usage patterns (Alassafi, 2022). Acceptance begins when a person first encounters a new technology. This is because acceptance is a process that builds on familiarity. In later stages, the significance of other choice variables will become more apparent. Previous studies developed and tested the relationship between behavioural intention to use and use behaviour via the extended UTAUT 2 model in the online food delivery context (see Ali, Khalid, Javed, & Islam, 2020; Tran, Rizov, & Rosen, 2021; Ramos et al., 2021; Candra, Ayudina, & Arashi, 2021; Puriwat & Tripopsakul, 2021; Palau-Saumell et al., 2019; Jasim et al., 2022). Their empirical results revealed a significant relationship between behavioural intention to use and actual online food delivery usage.

Ali et al. (2020) found that adoption behaviour was positively impacted by behavioural intention, whereby consumers' behavioural intention possessed a moderate amount of explanatory capacity to predict consumers' consumption behaviour. Other variables, such as hedonic motivation, convenience motivation, wired lifestyle, and food-related lifestyle factors such as food neophobia or food quality, were not considered in their study. This could possibly explain why the study had only moderate explanatory power. Similarly, Jasim et al. (2022) revealed a significant association between users' behavioural intention and their actual behaviour when using drone food delivery (DFD). For instance, social influence had the significant relationship on behavioural intention, followed by trust, personal innovativeness, facilitating conditions, and usefulness, ease of use, hedonic motivation, and price sensitivity.

The findings of Palau et al. (2019) also strongly support the applicability of restaurant applications context, which revealed that the drivers of the intentions to use were social influence, habit, effort expectancy, hedonic motivation, performance expectancy and facilitating conditions. The main finding was that customers would have positive intentions to adopt the apps as long as they perceived that the applications would safeguard their personal information. Similarly, in the study by Puriwat and Tripopsakul (2021), it was observed that behavioural intention to use positively affected the use behaviour of online food delivery users in Thailand. The findings showed that performance expectancy, effort expectancy, social influence, and facilitating condition strongly impacted the behavioural intention to use the apps during the COVID-19 pandemic.

Candra et al. (2021) found that respondents' behavioural intention to purchase through electronic media and the internet influenced the actual actions of the purchasing activity. Since COVID-19 was found to be a major factor in the causal relationship between purchase intention towards a food product and the actual purchasing behaviour. Purchasing activities for food and beverages through online food applications increased significantly during the pandemic which the respondents spending more time and money to shop through online media. Meanwhile, Tran et al. (2021) revealed subjective norms, social isolation, perception of food safety, and food delivery hygiene had a significant association with the behavioural intention to use that might predict customers' continued use of OFDA. However the finding is also similarly during post-covid 19, the study empirically examined the factors influencing consumers' intention to use food delivery apps in the post-pandemic era by identifying significant constructs. These effects were proved through the significance analyses of the examined variables, namely, performance expectancy, effort expectancy, social influence, hedonic motivation, habit and trust, all of which were consistently shown

to be antecedents or predictors of continued intention (Abed, 2023). Table 2.1 summarises the studies that focused on OFDA usage.

Table 2.1: Behavioural Intention to Use (BI) and OFDA Usage

Author	Methodology	Theory/model	Findings	Future Research Direction
(Puriwat & Tripopsakul, 2021)	SEM was used for the analysis.	UTAUT Perceived fear	The results indicated that intention to use had a significant impact on the actual usage behaviour.	Should employ a longitudinal design. A mixed-methods approach could be used.
(Palau et al., 2019)	SEM was used to analyse the data.	UTAUT2	There was a significant effect between the intention to use and the actual use.	Personalization or perceived risk. Comparing urban and rural users.
(S. Ali et al., 2020)	Data were analysed using partial least squares (PLS) and multigroup analysis (MGA) techniques.	UTAUT2	Intention to use food delivery apps significantly impacted the actual usage behaviour.	Can include OFDO service users from different countries. Using experimental and longitudinal data.
(Tran et al., 2021)	SEM was used to analyse the data	UTAUT2	It was discovered that the continued usage behaviour of customers was influenced by behavioural	Should include belief structure as a potential predictor of subjective norms.

Table 2.1: Continued

Author	Methodology	Theory/model	Findings	Future Research Direction
(Jasim et al., 2022)	The study used SPSS to analyse data	Technology Acceptance Model UTAUT2	The behavioural intentions influencing their actual usage when using DFD.	Mixed approach of data collection. A qualitative study is highly recommended.
(Abed, 2023)	Structural equation modelling (SEM) was used to examine the proposed model and its hypotheses.	UTAUT 2 Trust	The behavioural intentions influencing their actual usage.	Should test the factors affecting companies' decisions to use food delivery apps. May consider investigating this topic in other geographical and cultural settings. Moderating variables should be considered in future studies.

2.4.1 Performance Expectancy (PE)

Performance expectancy (PE) is the user expectation that using the technology will improve job or professional performance. Thus, people are more willing to use new technology if they think it will improve their work performance (Venkatesh et al., 2003, 2012). Meanwhile, Alalwan (2020b) found that when people strongly believed that technology helped them with performing their jobs, their intentions to use it grew. This was

in contrast to the situation when people had a faulty sense that technology aided them in doing their jobs. As well as Zhao and Bacao (2020) discovered that users had a tendency to continue using OFDA when they saw the benefits available to them. For instance, they believed that the apps would save time and effort because transactions could be completed quickly and numerous purchasing options were available at all times. As a consequences, there was a greater likelihood that customers would respond positively and desire to utilise the new system.

Many studies have developed and tested the performance expectancy construct through the extended UTAUT 2 model in the online food delivery context (see Gunden, Morosan, & DeFranco, 2020; Ramos, 2022; Alalwan, 2020a; Pitchay et al., 2021; Palau et al., 2019; Lee et al., 2019; Muangmee et al., 2021; Jasim et al., 2022; Zanetta et al., 2021). Their empirical research revealed that performance expectancy was one of the factors that contributed to a person's preference to use OFDA service. This was the situation for as long as customers believed that online applications for food delivery were efficient for searching and easy to use for placing orders for food and beverages.

According to Ramos (2022), the finding that the continuation intention towards food delivery apps could be predicted by some variables, including performance expectancy, confirmed that consumers perceived an increased benefit, such as a reduction in the amount of time and effort required for meal preparation. Additionally, consumers' attitude towards food delivery applications improved because they did not have to leave their locations to purchase meals via a food delivery application. This scenario led to a stronger sense of convenience for the consumers that resulted in an improved consumer attitude towards food delivery applications, leading to a rise in the number of people using such application. Along

the same line, Alalwan (2020a) discovered that the most influential predictor of e-satisfaction and persistent intention was performance expectancy in mobile food ordering apps from the perspective of Jordanian users, due to its convenience in the ordering food process than visiting restaurants or telephoning them. This was a significant advantage of mobile food ordering apps over the traditional ordering methods. In a similar line, people had the view that the applications would enable them to save more time and effort than would the traditional methods. Users would have a favourable attitude towards adopting the applications if it was viewed as an app that was effective, easy to use, and time-saving. These findings demonstrated the powerful predictive ability of performance expectancy in regard to customers' intentions to use restaurant applications (Palau et al., 2019).

Furthermore, it is critical to ensure that OFDA are designed to offer customers with gratification, which will create a need that transforms into a way of life and profits for the owners of food delivery businesses with the sustenance of the venture over time. As much information as possible should be provided about the application and deployment of the OFDA to satisfy consumer interest based on previous customer usage experience (Muangmee et al., 2021). Previous study, Zanetta et al. (2021) did in a comparison study between the Northeast region and Southeast region in Brazil, and they found that the Northeast region had the lowest performance expectancy due to a poor sense of the convenience benefits associated with using food delivery applications. Meanwhile, the Southeast region recorded the highest for performance expectancy because it had lesser human development than other regions. It is because the usage of OFDA will raising the perception of benefits associated with its use.

Therefore, it was discovered that performance expectancy (PE) had a significant effect on the behavioural intention to use OFDA. This could be accomplished by providing users with accurate, reliable, and detailed information enabled by appropriately designed apps so that they would perceive the apps as useful. This finding suggests that consumers will establish the intent to use a delivery app continuously when they perceive the utility of the services it offers, such as the ability to save time, the speed with which a transaction can be completed, and the diversity of purchase options. Prior research on performance expectancy (PE) and behavioural intention to use (BI) OFDA is summarised in Table 2.2.

Table 2.2: Performance Expectancy (PE) and Behavioural Intention to Use (BI) OFDA

Author	**Methodology**	**Theory/ Model**	**Findings**	**Future Research Direction**
(Ramos, 2022)	Multiple linear regressions were performed.	UTAUT2 Quality	PE influenced continuous usage.	Apply longitudinal design. Investigate customers' continuance usage intention.
(Alalwan, 2020a)	SEM served as the foundation for the primary findings.	UTAUT2	PE influenced continued intention to reuse.	A longitudinal study is required. Consideration of these cultural aspects.
(Palau et al., 2019)	Analysed using SEM.	UTAUT2 credibility Social norm approach.	PE was significantly related to use.	Personalization or perceived risk. Comparing urban and rural users.

Table 2.2: Continued

Author	Methodology	Theory/ Model	Findings	Future Research Direction
(Puriwat & Tripopsakul, 2021)	Data was analysed using SEM.	UTAUT Perceived fear	The intention to use was significantly influencing PE.	Should employ a longitudinal design. A mixed-methods approach could be used.
(Lee et al., 2019a)	A survey of a sample of 340 respondents	UTAUT2	PE affecting continuous use intention	Use different types of data collection methods. Analyze the differences between single-person and multi-person households.
(Chakraborty, 2021)	The researcher used SEM and moderation analysis	UTAUT2	PE was found to have a significant impact on the intention to use	Proposed that future studies be longitudinal. Using more technology adoption/acceptance models may provide a different perspective.

Table 2.2: Continued

Author	Methodology	Theory/ Model	Findings	Future Research Direction
(Agarwal & Sahu, 2021)	Using partial least squares-structural equation modelling (PLS-SEM).	Uses and Gratification Theory UTAUT2	PE have a significant impact on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.
(Muangmee et al., 2021)	The study used quantitative methods, including SEM.	UTAUT	The behavioural intention to use was significantly influenced by PE.	Investigate the roles demographic data such as age, education, gender, and income.
(Zanetta et al., 2021a)	The information was examined by means of covariance-based SEM.	UTAUT2	PE have a significant impact on the intention to use.	The risk perception of COVID-19 should be better explored.
(Teng, Wu, Wang, & Chen, 2023)	Partial least squares-structural equation modeling was used as the data analysis approach.	UTAUT	PE was found to have a significant impact on the intention to use.	Suggested that survey different culture's consumers and perform comparison analyses or multigroup analyses. Distinguishing between distinct styles of restaurants and cuisine types.

2.4.2 Effort Expectancy (EE)

Effort expectancy can be defined as a system's usability, which refers to the degree of simplicity associated with its operation (Venkatesh et al., 2003, 2012). Khechine and Lakhal (2018) indicates that in the beginning phases of various activities, customers may perceive difficulties associated with the use of technology; however, as they become more acclimated with the technology, its perceived ease of use becomes more relevant to them. Because of this, the most important factors in deciding whether or not a customer would buy from an online food delivery app were its structure and its ability to quickly and successfully carry out online food orders placed by customers (Gunden et al., 2020a, 2020b; Saad, 2021).

Thus, Pigatto, Machado, Negreti, and Machado, (2017) stressed that restaurant management should consider the fact that consumers are the ones completing the full process in online food delivery applications. Customers choose the business, then place an order, decide how they will pay for it, and finally monitor the status of the transaction until the order is delivered. In a discussion on the adoption of OFDA by customers, Roh and Park (2019) suggested that consumers who used an app with little effort were more likely to rate it as useful and buy it. It is because the customers were more likely to adopt OFDA when less effort was required to utilise the applications, since this increased the likelihood that customers would adopt the services. Consequently, Cho, Bonn, and Li (2019b) suggetsed that the operators and providers of food apps need to prioritise making the food apps as easy to use as possible.

Many studies have developed and tested the effort expectancy construct through the extended UTAUT 2 model in the online food delivery context (see Gunden et al., 2020a; Ramos, 2022; Alalwan, 2020a; Pitchay et al., 2021; Palau et al., 2019; Lee et al., 2019;

Muangmee et al., 2021; Jasim et al., 2022; Zanetta et al., 2021). Their empirical findings indicated the role of effort expectancy as one of the antecedents of people's intention to use online food delivery services. The findings also demonstrated that effort expectancy was a powerful predictor and had a significant influence on the intention to use online food delivery, provided that the users perceived online food delivery programmes as being successful and user-friendly for the purposes of looking for and placing orders for food and beverages.

Moreover, since the customer’s anticipation of the amount of effort that would be contributing to the performance of the delivery, it is imperative that this factor be taken into consideration. This is because delivery performance plays a crucial role in determining the amount of required effort perceived by the customer, and it is also important in addressing the issues that may occur while the delivery is being completed (Desvita, Elvandari, Sukartiko, & Nugrahini, 2018; Saad, 2021). Ramos (2022) found that customers’ continuance use intention towards the usage of online food delivery applications was affected by previous experiences with effort performance. In addition, customers reported that online food delivery applications were helpful in satisfying their growing need to purchase food and maintain social distance while they were being quarantined for COVID-19.

In contrast, the study by Zanetta et al. (2021) showed that effort expectancy did not predict continuance intention. With the rising availability of this type of technology, individuals have been more familiar with it and utilised it, making this construct's non-significant influence on the intention to continue using it (Song, Ruan, & Jeon, 2021a). Similarly, the study by Zhao and Bacao (2020) which conducted during the COVID-19

pandemic concluded that the effort expectancy does not apply to the use of online food delivery. It is because users' growing familiarity with mobile technology after their initial adoption meant that effort expectancy no longer determined their intention. They gained enough experience from their previous usage of online food delivery apps, leading to an increase in their recognition and familiarity of the apps itself. Thus, other features such as safety, reliability, and efficiency were more important determinants due to their ability to provide users with more benefits, which directly influenced the users' satisfaction and continuance usage intention.

Meanwhile, the findings of Ray et al. (2019) showed that OFDA listed establishments by location, cuisine, and menu size decreased usage intentions, could result in a complicated interface, which would cause consumers to have unfavourable perceptions of the applications. Based on the findings, the user interface needs to offer a straightforward way for navigating through the various dining options that are available. Besides, the service providers of online food delivery applications are expected to guarantee that the ordering procedure is efficient and that the various online payment alternatives are easy to understand and use. Moreover, business owners must make their online food delivery apps easy to use and give order monitoring to build consumer trust. Order tracking begins when the order is placed and ends when it is delivered to the customer without any hassle (Koiri et al., 2019; Saad, 2021). As well as, features of ordering and delivery processes (Kapoor & Vij, 2018).

Customers must be able to successfully complete the entire process of placing an order for food using the online food delivery applications without needing any support or assistance from the restaurant staff in order to be eligible for the service. Therefore, a customer's intention to utilise the apps could be influenced by their view of how easy and

uncomplicated it is to use those services on their mobile device. It is due to the fact that consumers place a high value on the ease and minimal effort required to use a new system (Baabdullah, Alalwan, Rana, Patil, & Dwivedi, 2019). Table 2.3 summarises the studies that focused on customers' effort expectancy and behavioural intention to use OFDA.

Table 2.3: Effort Expectancy (EE) and Behavioural Intention to Use (BI) OFDA

Author	**Methodology**	**Theory/Model**	**Findings**	**Future Research Direction**
(Ramos, 2022)	A series of multiple linear regressions was carried out.	UTAUT2 Quality	EE influenced customers' continuous usage behaviour.	Apply longitudinal design. Investigate customers' continuance usage intention.
(Puriwat & Tripopsakul, 2021)	SEM was used for the analysis.	UTAUT Perceived fear	The intention to use was significantly influenced by EE	Should employ a longitudinal design. A mixed-methods approach could be used.
(Palau et al., 2019)	Data was analysed using SEM.	UTAUT2 Perceived credibility Social norm approach.	EE was significantly related to use.	Personalization or perceived risk. Comparing urban and rural users.

Table 2.3: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Lee et al., 2019a)	A survey with 340 respondents	UTAUT2 Information quality.	EE influenced users' continuous use intention.	Use different types of data collection methods. Analyze the differences between single-person and multi-person households.
(Chakraborty, 2021)	Analysed using SEM and moderation analysis.	UTAUT2	EE had a significant impact on the intention to use.	Proposed that future studies be longitudinal. Using more technology adoption/ acceptance models may provide a different perspective.
(Agarwal & Sahu, 2021)	Using PLS-SEM.	UTAUT2	EE was found to have an impact on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.

Table 2.3: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Muangme e et al., 2021)	SEM.	UTAUT	The behavioural intention to use was significantly influenced by EE	Investigate the roles demographic data such as age, education, gender, and income.
(Jasim et al., 2022)	This study used SPSS to examine data	UTAUT2	EE was found to have a significant impact on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.
(Abed, 2023)	Structural equation modelling (SEM) was used to examine the proposed model and its hypotheses.	UTAUT 2 Trust	EE was found to have a not significant impact on the intention to use.	Should test the factors affecting companies' decisions to use food delivery apps. May consider investigating this topic in other geographical and cultural settings. Moderating variables should be considered in future studies.
(Teng et al., 2023)	Partial least squares-structural equation modeling was used as the data analysis approach.	UTAUT	EE was found to have a significant impact on the intention to use.	Suggested that survey different culture's consumers and perform comparison analyses or multigroup analyses. Distinguishing between distinct styles of restaurants and cuisine types.

2.4.3 Social Influence (SF)

Social influence refers to the extent to which an individual considers the perspectives of other people to be essential in modifying their behaviour towards using a new system (Venkatesh et al., 2003). Individual's decision to use particular technology may also be influenced by the views of other people such as family members, friends, and co-workers, and this phenomenon is a reflection of social influence. Therefore, when their see a greater value in using new technologies, systems, or facilities, there is a greater likelihood that those peers will adopt those innovations and has an effect on social influence (Lee, Lee, & Jeon, 2017).

Roh and Park (2019) found that social influence had a significant impact on the intention to use. The perception of an application's compatibility with an individual's lifestyle and the individual's expectations regarding the results of using the application were both impacted by the social pressure exerted by other people. These findings lend credence to the theory that when individuals are subjected to intense pressure from other people, they are more likely to incorporate the opinions of those other people into their value systems. Meanwhile, in the study by Palau et al. (2019), surprisingly, it was establish that social influence was one of the least influential element of intentions to use. This led to the idea that the widespread use of OFDA may have had the effect of lessening the importance of the role of social influence. If routine was the most effective motivator of intention to use, then social influence would obviously become less relevant. This may have happened due to the normative pressure put forth by reference groups.

Jasim et al. (2022) also investigated the social influence factor in their study and anticipated it to have a positive impact on customers' intentions. Their findings showed that

social influence had an important influence on customers' intentions. This indicates that people may have a greater capacity for motivation if they receive a certain level of encouragement from co-workers, family members, and friends. This encouragement can be provided in various settings, including the workplace, the family home, and social settings. It has the potential to have a substantial impact not only on their awareness of technology but also on their intention in relation to it. In addition, it was found that social influence had the highest significance in the early phases of the process during which individuals' embraced new technology. When the technology had been used repeatedly, social influence gradually lost some of its significance over time.

Along the same line, Lee et al. (2019) demonstrated that consumers' intention to continue using a product was positively impacted by social influence. According to the results of their investigation, users were influenced by their friends and acquaintances. It was also found that users were strongly influenced by their peers when selecting which OFDA to use. This finding suggests that suppliers of delivery apps need to be aggressive in promoting word-of-mouth marketing (Crosta et al., 2021). For example, users who are in their 20s and 30s make up a sizeable portion of delivery app users and are active users of social networks, it is necessary to use social networks actively to target users in these age groups as a core user base. This is because the people in this age group are active participants in social networking sites (Lee et al., 2019).

The study by Hamid, Azhar, and Sujood (2022) found that in countries like India, trust, attitude, and the influence of family and peer groups all had a impact on the behavioural intention of consumers. This phenomenon could be due to the values, customs, and traditions that have been passed down through generations in the Indian subcontinent. When the users

were not completely familiar because the technology was relatively new; as a result, they were more likely to be swayed by the opinions, thoughts, and attitudes of others, such as friends, family, leaders, relatives, and co-workers, whose perspectives, ideas, and beliefs were significant to them. Table 2.4 summarises the studies that focused on social influence and behavioural intention to use OFDA.

Table 2.4: Social Influence (SF) and Behavioral Intention to Use (BI) OFDA

Author	**Methodology**	**Theory/Model**	**Findings**	**Future Research Direction**
(Puriwat & Tripopsakul, 2021)	SEM was used for the analysis.	UTAUT Perceived fear	The intention to use was significantly influenced by SF	Should employ a longitudinal design. A mixed-methods approach could be used.
(Palau et al., 2019)	data was analysed using SEM.	UTAUT2 Perceived credibility Social norm approach.	SF was significantly related to use.	Personalization or perceived risk. Comparing urban and rural users.
(Lee et al., 2019a)	A survey of 340 respondents	UTAUT2 Information quality.	SF influenced users' continuous use intention.	Use different types of data collection methods. Analyze the differences between single-person and multi-person households.

Table 2.4: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Muangmee et al., 2021)	SEM was used for the analysis.	UTAUT	The behavioural intention to use was significantly influenced by SF.	Investigate the roles demographic data such as age, education, gender, and income.
(Zanetta et al., 2021a)	Examined the data by means of covariance-based SEM.	UTAUT2	SF have a significant impact on the intention to use.	The risk perception of COVID-19 should be better explored.
(Jasim et al., 2022)	This study used SPSS to examine data	UTAUT2	SF affecting continuous use intention.	Mixed approach of data collection. A qualitative study is highly recommended.
(Abed, 2023)	Structural equation modelling (SEM) was used to examine the proposed model and its hypotheses.	UTAUT 2 Trust	SF was found to have a significant impact on the intention to use.	Should test the factors affecting companies' decisions to use food delivery apps. May consider investigating this topic in other geographical and cultural settings. Moderating variables should be considered in future studies.

Table 2.4: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Teng et al., 2023)	Partial least squares-structural equation modeling was used as the data analysis approach.	UTAUT	SF was found to have a significant impact on the intention to use.	Suggested that survey different culture's consumers and perform comparison analyses or multigroup analyses. Distinguishing between distinct styles of restaurants and cuisine types.

2.4.4 Facilitating Condition (FC)

The extent of use and the level of customer satisfaction with the technology applications are largely determined by the amount of readily available technical infrastructure and human support (Venkatesh et al., 2003). It is a term used to describe the conditions under which a consumer is more likely to have the intention to use a technological product such as availability of money and time, as well as access to the internet and cognitive and motor capacities. Customers also prioritise the quality of the applications and their capacity to operate reliably without experiencing any interruption or practical issues. For instance, customer services provided in ensuring high-quality services can be offered to users (Verkijika, 2018).

The study by Palau et al. (2019) discovered facilitating conditions had the greatest influence on usage of restaurant applications context. This demonstrates that the extent to

which people believe they will receive assistance and access to relevant resources when they use apps is a critical factor in determining how widely this technology will be adopted. Karulkar et al. (n.d.) found that facilitating conditions were indicating that consumers believed there was technical infrastructure in place to facilitate the use of OFDA. Hence, apps service providers must aim to reduce the downtime of their services to the minimum level. Further, parameters such as delivery time and the state of the food delivered must be under checked constantly.

Zanetta et al. (2021) revealed the influence of facilitating conditions on continuance intention was significantly stronger in the context of OFDA in Brazil due to sufficient information technology infrastructure provided for technology support. This situation will encourage consumers to use the technology. Therefore, when establishing the facilitating conditions, elements like the availability of money and time, as well as knowledge and resources for using technology, could have an impact on one's decision to continue using it. For example, the customer could download an app that gave them access to a variety of restaurants' menus, allowing them to order food whenever and wherever they wanted. In contrast, the study by Hamid et al. (2022) found that the behavioural intention to use OFDA was unaffected by the facilitating condition. Due to poor connectivity, technological difficulties, and insufficient infrastructure, e-commerce services were hampered in India, which had a negative impact on behaviour. As a result, there was a low behavioural intention to order meals through online commerce. All these issues contributed to the non-significance of facilitating conditions. Moreover, the average Indian citizen was less tech-savvy than the global average and had a lower level of ICT-related knowledge and ability. This could be another explanation for the non-significance of facilitating conditions. A summary of the

studies on facilitating conditions and behavioural intentions to use OFDA is provided in Table 2.5.

Table 2.5: Facilitating Condition (FC) and Behavioral Intention to Use (BI) OFDA

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Puriwat & Tripopsakul, 2021)	SEM was used for the analysis.	UTAUT Perceived fear	The study revealed behavioral intention to use related to FC.	Should employ a longitudinal design. A mixed-methods approach could be used.
(Palau et al. 2019)	data was analysed using SEM.	UTAUT2 Perceived credibility Social norm approach.	The study confirmed FC as one of the predictor factors.	Personalization or perceived risk. Comparing urban and rural users.
(Agarwal & Sahu, 2021)	PLS-SEM was used to analyse data	UTAUT2	The study found FC have an effect on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.
(Zanetta et al., 2021a)	SEM was used.	UTAUT2	The research found FC influenced consumers' intention to continue using.	The risk perception of COVID-19 should be better explored.

Table 2.5: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Jasim et al., 2022)	This study used SPSS to examine data	UTAUT2	The study highlighted FC had a significant effect on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.
(Karulkar et al., n.d.)	Multiple linear regression analysis was used.	UTAUT Perceived control Hedonic motivation	FC had a significant influence on the intention to use.	Examine OFD usage as an extension to intention to use of OFD services.
(Belanche, Flavián, & Pérez-Rueda, 2020b)	PLS-SEM was used.	Theory Planned Behaviour	FC positively influenced consumers' intentions to continue using	Take account of the lifestyle compatibility of green food delivery services.
(Wen et al., 2022)	Analysed using PLS-SEM.	Theory Planned Behaviour	FC predicted consumers' intentions to continue using	May collect data in multiple countries and conduct a cross-cultural comparison. May also collect data on a longitudinal basis.

2.4.5 Price Value (PV)

Price value defined as the cognitive exchange between the perceived benefits of an application and the monetary cost of using it (Venkatesh et al., 2016). When customers believe that the value they receive from using an application is greater than the cost of using it, the price value has a positive influence on their intention to use the application. Previous research has suggested that the use of applications for online food delivery does not incur any kind of financial cost, as there is no additional fee that must be paid for the installation of a free OFDA (Alalwan, 2020b; Shaw & Sergueeva, 2019). However, customers can obtain significant monetary savings through loyalty programmes or discounts, availability of comparative prices, and simplicity of choosing (Koiri et al., 2019; Tomacruz & Flor, 2018; Jain, Verma, & Jaggi, 2020; Saad, 2021). Large families were found to make fewer purchases of home-delivered food than small families did. This was because the food for large families tended to be more expensive, and when they did make purchases, they typically took advantage of sales (Tomacruz & Flor, 2018).

The study by Indrawati and Putri (2018) adjusted the initial price value factor in order to put a focus on cost savings. This was done due to the fact that placing an online food order does not necessarily result in a monetary expense. It is because downloading a free online platform for food delivery incurs no further cost, as there are no costs involved with doing so. As a result, there is no further cost to be paid while doing so (Shaw & Sergueeva, 2019). However, consumers can perceive some benefits from using the application and the cost of placing an order (Alalwan, 2020a). It is considered a benefit when an online food delivery app provides its clients with loyalty programmes or discounts in such a way that the consumers earn a sizeable amount of monetary savings as a result of participating in the programme or taking advantage of the discount.

On the other hand, Lee, Sung, and Jeon (2019b) was discovered that consumers did not perceive a price-value advantage because there were no distinctions in the material benefits associated with placing an order via phone/smartphone or delivery applications. That is to say, when people utilise OFDA, they are not aiming to save money or look for offers of low prices. Instead, they simply expect their food to be delivered to them. Hence, the concept of price value in UTAUT 2 model was modified to accommodate a focus on cost reduction in the context of OFDA, which has received relatively little attention from researchers.

Palau et al. (2019) conducted research on UTAUT model pertaining to mobile devices and looked into the costs associated with using various mobile services. They found that restaurant searches and/or reservations (MARSR) was available at no cost. These findings make an original contribution to the research on OFDA by demonstrating that users use applications in order to receive discounts and save money. This is an important aspect of the research that has been conducted on mobile applications. However, Alalwan, (2020a) found that there was no relationship between price value and the continued intention of customers in mobile food ordering apps (MFOAs) context. This is because customers' long-term experiences of continued intention were mostly influenced by the role of motivation and interest issues, even though the short-term effects of their experiences, such as satisfaction or dissatisfaction, were mostly predicted by price issues.

As a result of the advancements made in smartphone and information and communication technology (ICT), which helped to standardise app implementation to the point where consumers faced very few difficulties when using these apps. Customers believe there was a price value benefit accessible to them since there was evident in the material

benefits associated to placing an order through a phone or smart phone as compared to using an app that facilitated delivery. This led customers to assume that there was a price value benefit available to them. The previous studies on price value (PV) and behavioural intention to use (BI) OFDA are summarised in Table 2.6.

Table 2.6: Price Value (PV) and Behavioural Intention to Use (BI) OFDA

Author	**Methodology**	**Theory/Model**	**Findings**	**Future Research Direction**
(Ramos, 2022)	Data was analysed using multiple linear regressions.	UTAUT2 Food and beverage quality	PV influenced customers' continuous usage behaviour.	Apply longitudinal design. Investigate customers' continuance usage intention.
(Alalwan, 2020a)	SEM served as the basis for the primary findings.	UTAUT2	PV and continued intention to reuse significant.	A longitudinal study is required. Consideration of these cultural aspects.
(Agarwal & Sahu, 2021)	PLS-SEM was used	UTAUT2	PV was found to have a significant impact on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.

Table 2.6: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Zanetta et al., 2021a)	used covariance-based SEM.	UTAUT2	PV had a significant impact on the intention to use.	The risk perception of COVID-19 should be better explored.
(Jasim et al., 2022)	This study used SPSS to examine data from	Technology Acceptance Model UTAUT2	PV was found to have a significant impact on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.

2.4.6 Hedonic Motivation (HM)

Hedonic motivation can be stated as playfulness, enjoyment, fun, and pleasure resulting from using new products, services, and applications (Venkatesh et al., 2012). For instance, applications such as mobile food ordering apps (MFOAs) are regarded as being cutting-edge and innovative, which may give customers a sense of satisfaction and pleasure when utilising the innovative new software (Okumus, Ali, Bilgihan, & Ozturk, 2018b; Yeo, Goh, & Rezaei, 2017b). Moreover, hedonic motivation had a positive effect on how customers saw the convenience and usefulness of OFDA. For example, how customers felt about how much fun they were having affected their desire to use mobile online food delivery apps (Yeo et al., 2021).

Nonetheless, the study by Palau et al. (2019) establish that hedonic motivation was a strong element of intention to use. According to their findings, users were more likely to give positive ratings to mobile applications when those applications were fun, enjoyable, and

entertaining. On the other hand, Lee et al. (2019a) found that hedonic motivation was not one of the key determinants of a person's intention to use delivery apps continuously. It was because the development of smartphones and other forms of ICT devices that were largely responsible for the advent of online food delivery, as well as the implementation of applications, had been stabilised to the point that consumers experienced very few problems when using the applications. Thus, it was likely that the outcome on hedonic motivation was attributed to a short process from search to order only, allowing customers very little time for enjoyment.

However, Jasim et al. (2022) found the hedonic motivation to be influential on the behavioural intention to use in the drone food delivery (DFD) services context. This was due to the fact that users were more inclined to utilise this new delivery service after they had the notion that engaging with it would result in a good experience. This was the case because users had the perception that interacting with it would result in a pleasant experience. Similarly with finding of Kumar and Shah (2021) during Covid-19 pandemic, the study revealed the significant influence of enjoyment on the intention to continue using OFDA regardless of the pandemic, rather than the motivation for doing so. However, the finding is different from the result of the study by Zanetta et al. (2021). The differences in results may be due to factors such as the type of the app tested, the amount of experience one has, or the gender of the participants. For instance, online platforms that facilitate routine activities are different from social networking apps and gaming apps. These apps should not be confused with those that are used for social networking or gaming. Customers in this environment place a high value on applications that can solve their problems.

Chakraborty (2021) discovered that purchase intention towards technological products was significantly impacted by the hedonic motivation construct. The study demonstrated that customers believed making orders through online apps was a pleasurable experience and that they appreciated the services provided by online food delivery applications. Users placed a high value on the fun features of online food delivery applications because hedonic motivation is concerned with the enjoyment that may be received from the usage of technology. In addition, the study suggested that marketers highlight the value of an app in terms of joy, fun, pleasure, or amusement. The previous studies on hedonic motivation and behavioural intention to use OFDA are summarised in Table 2.7.

Table 2.7: Hedonic Motivation (HM) and Behavioral Intention to Use (BI) on OFDA

Author	**Methodology**	**Theory/Model**	**Findings**	**Future Research Direction**
(Palau et al. 2019)	Analysed using SEM.	UTAUT2 Perceived credibility Social norm	HM was have a significant impact on the intention to use.	Personalization or perceived risk Comparing urban and rural users.
(Alalwan, 2020a)	SEM	UTAUT2	HM have a significant impact on the intention to use.	A longitudinal study is required. Consideration of these cultural aspects.

Table 2.7: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Chakraborty, 2021)	Using SEM and moderation analysis.	UTAUT2	HM had a significant impact on the intention to use.	Proposed that future studies be longitudinal. Using more technology adoption/acceptance models may provide a different perspective.
(Agarwal & Sahu, 2021)	PLS-SEM was used to analyse the data	UTAUT2	HM had a significant impact on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.
(Zanetta et al., 2021a)	Date was examined by means of covariance-based SEM.	UTAUT2	HM had a significant impact on the intention to use.	The risk perception of COVID-19 should be better explored.
(Jasim et al., 2022)	The study used SPSS to examine data	UTAUT2	HM was found to have a significant impact on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.

Table 2.7: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Wen et al., 2022)	Analysed using the PLS-SEM method.	Theory Planned Behaviour	HM was found to have a significant impact on the intention to use.	May collect data in multiple countries and conduct a cross-cultural comparison. May also collect data on a longitudinal basis.
(Abed, 2023)	Structural equation modelling (SEM) was used to examine the proposed model and its hypotheses.	UTAUT 2 Trust	HM was found to have a significant impact on the intention to use.	Should test the factors affecting companies' decisions to use food delivery apps. May consider investigating this topic in other geographical and cultural settings. Moderating variables should be considered in future studies.

2.4.7 Habit (HA)

Limayem, Hirt, and Cheung (2007) defined habit as an individual's propensity to act without a conscious thought as a result of the individual's accumulated learning experience. People are becoming more dependent on their smartphones and have developed a pattern of

behaviour regarding the use of the mobile applications that are associated with them. The formation of habitual behaviour as a result of learning experience, could have an impact on users' attitudes and beliefs, which, in turn, predict their continued intention to behave in the same manner as they did in the past. In addition, the effect of habit on continuance intention is dependent on awareness with OFDA. This means that continuance intention develops as an individual becomes more aware of OFDA (Zanetta et al., 2021a).

In the context of restaurant applications, the findings revealed that habit was the most powerful predictor of both intentions to use and actual usage (Palau-Saumell et al., 2019). According to the findings of this study, the intention to use the online platforms was found to be less important as the habit became stronger. This was because the probability of using it continuously increased significantly. This phenomenon was observed in the major influence that routine has on the usage of these apps. This conclusion revealed the results of prior research that were conducted on people who used the internet, which indicated that habit had an influence on usage but less impact on intentions to use of technology. However, the finding contradicts the result of Lee et al. (2019), which demonstrated that the habit factor was demonstrating the undesirable relationship. Therefore, respondents' use of OFDA was not the result of compulsion or habit.

The finding is in line with the result of Zanetta et al. (2021), which found that habit was the second most important determinant of continuation intention. The strong influence of routine on people's intentions to continue doing something might be the result of new routines that developed as a result of the pandemic. OFDA was one of the options available to consumers who found themselves confined to their homes for extended periods of time during the pandemic and had limited opportunities to maintain healthy relationships with

those outside their homes. During stay-at-home orders, customers could place orders for their preferred dishes from the restaurants they frequented the most. In addition, one trend that emerged over time was that of using online food delivery apps as a means of exchanging gifts with one another, such as by sending candies and beverages. Therefore, during the duration of the epidemic, people may have enhanced their habit of using online food delivery services by utilising them more frequently. This could have influenced people to continue using apps even after the pandemic ended.

As well as, Gunden et al. (2020a) discovered a connection between the behaviours of consumers and their intentions to use OFDA. This study gives weight to the assumption that consumer routines play a crucial role in determining consumers intend to make advantage of online food delivery. In addition, the significance of this discovery lies in the fact that customers who are confronted with an unfamiliar system will eventually rely on the same routines that have persistently guided their behaviour throughout the course of their lives. Since these kinds of habits can be triggered by cues (Renaud et al., 2019), the routine of utilising information systems for a variety of daily chores could lead to the development of habits that include using online food delivery to order food. This is because such habits can be triggered by stimuli. The previous studies on habit and behavioural intention to use OFDA are summarised in Table 2.8.

Table 2.8: Habit (HA) and Behavioral Intention to Use (BI) on OFDA

Author	Methodology	Theory/model	Findings	Future Research Direction
(Palau et al. 2019)	Analysed using SEM	UTAUT2 Perceived credibility Social norm approach	HA was found to have a significant impact on the intention to use.	Personalization or perceived risk. Comparing urban and rural users.
(Lee et al., 2019a)	Involved 340 respondents who had ordered or purchased food through delivery apps.	UTAUT2 Information quality	HA was found to have a significant impact on the intention to use.	Use different types of data collection methods. Analyze the differences between single-person and multi-person households.
(Agarwal & Sahu, 2021)	PLS-SEM was used to analyse the data	UTAUT2	HA have a significant impact on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.
(Zanetta et al., 2021a)	Data was examined by means of covariance-based SEM.	UTAUT2	HA have a significant impact on the intention to use.	The risk perception of COVID-19 should be better explored.

Table 2.8: Continued

Author	Methodology	Theory/model	Findings	Future Research Direction
(Jasim et al., 2022)	This study used SPSS to examine data	UTAUT2	HA have a significant impact on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.
(Gunden et al., 2020a)	SEM was used for the analysis.	UTAUT2 Self-image Awareness	Habit was a significant influencing intention to use.	Can add multiple system-related variables to determine how consumers' perceptions of various system attributes influence persuasion.
(Agarwal & Sahu, 2021)	PLS-SEM was used to analyse the data	UTAUT2	HA have a significant impact on the intention to use.	To examine different types of food products. To include second-order dimensions like perceived risk and perceived quality.
(Zanetta et al., 2021a)	Data was examined by means of covariance-based SEM.	UTAUT2	HA have a significant impact on the intention to use.	The risk perception of COVID-19 should be better explored.

Table 2.8: Continued

Author	Methodology	Theory/model	Findings	Future Research Direction
(Jasim et al., 2022)	This study used SPSS to examine data	UTAUT2	HA have a significant impact on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.
(Gunden et al., 2020a)	SEM was used for the analysis.	UTAUT2 Self-image Awareness	Habit was a significant influencing intention to use.	Can add multiple system-related variables to determine how consumers' perceptions of various system attributes influence persuasion.
(Alalwan, 2020a)	SEM served as the basis for the primary findings.	UTAUT2	The results showed that habit influenced customers' continued intention to use.	A longitudinal study is required. Consideration of these cultural aspects.

Table 2.8: Continued

Author	Methodology	Theory/model	Findings	Future Research Direction
(Abed, 2023)	Structural equation modelling (SEM) was used to examine the proposed model and its hypotheses.	UTAUT 2 Trust	HA was found to have a significant impact on the intention to use.	Should test the factors affecting companies' decisions to use food delivery apps. May consider investigating this topic in other geographical and cultural settings. Moderating variables should be considered in future studies.
(Teng et al., 2023)	Partial least squares-structural equation modeling was used as the data analysis approach.	UTAUT	HA was found to have a significant impact on the intention to use.	Suggested that survey different culture's consumers and perform comparison analyses or multigroup analyses. Distinguishing between distinct styles of restaurants and cuisine types.

2.4.8 Trust (PT)

In the context of online commerce, trust was defined as the subjective probability that customers expect a web merchant to carry out a specific transaction in accordance with their confident expectations (Pavlou, 2002). Many scholars have studied the influence of trust on behavioural intention, for instance Jasim et al. (2022) has been hypothesised that trust has a considerable favourable effect on a person's behavioural intention to use drone food delivery (DFD) services context. They discovered that customers' confidence in the delivery system could increase their eagerness to rely on the drone for their day-to-day food needs. The findings are consistent with the findings of prior research that looked at the role of trust as a significant predictor of how well people will adapt to new technologies. Moreover, Hamid et al. (2022) found that in countries like India, the trust factor directly influenced the behavioural intention of consumers. This could be due to the inherited and engraved values, customs, and traditions in the Indian subcontinent. Thus, during the recent COVID-19 pandemic, it was shown that trust was a significant predictor of behavioural intention when it came to ordering food and beverage items through e-commerce platforms.

Notably, previous studies finding shown that customers' perceived level of trust was one of the elements that influenced their intention to use OFDA. According to the findings of the study, users and owners of applications for online food delivery are provided with information regarding the components of the overall technology on which they should concentrate their attention. It would appear that the suitability of technology in terms of its fit, perceived trust, and operational period should be examined in order to improve the overall success of online food delivery apps. This is particularly important in light of the fact that these applications are becoming increasingly popular (Muangmee et al., 2021; Wen et al., 2022).

Therefore, it is possible to draw the conclusion that the dependability, promptness, and personalization of service offered by online meal delivery apps were the determining elements in determining whether or not customers would trust using online food delivery apps. Therefore, in order to earn their customers' trust, app providers should improve the personalization of the services they offer and carefully monitor the online ordering, manufacturing, and delivery processes. This will ensure that customers receive services that are of a high quality and can be relied upon. Table 2.9 summarises the previous studies on trust and behavioural intention to use OFDA.

Table 2.9: Trust (PT) and Behavioural Intention to Use (BI) on OFDA

Author	**Methodology**	**Theory/Model**	**Findings**	**Future Research Direction**
(Muangmee et al., 2021)	SEM	UTAUT	Behavioural intention to use significantly influenced by PT.	Investigate the roles demographic data such as age, education, gender, and income.
(Jasim et al., 2022)	This study used SPSS to examine data	Technology Acceptance Model UTAUT2	PT was found to have a significant impact on the intention to use.	Mixed approach of data collection. A qualitative study is highly recommended.

Table 2.9: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Hamid et al., 2022)	Analysed using SPSS 25 and AMOS 22.0.	Trust Theory Planned Behaviour	PT significantly and positively influenced behavioural intention.	Could be carried out in other countries to test the model in an e-commerce setting. Could incorporate a large sample size. Other theories could be integrated, like technology use and unified theory of acceptance.
(Wen et al., 2022)	analysed using PLS-SEM.	Theory Planned Behaviour	PT positively predicted consumers' intentions to continue to use.	May collect data in multiple countries and conduct a cross-cultural comparison. May also collect data on a longitudinal basis.

Table 2.9: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Abed, 2023)	Structural equation modelling (SEM) was used to examine the proposed model and its hypotheses.	UTAUT 2 Trust	PT was found to have a significant impact on the intention to use.	Should test the factors affecting companies' decisions to use food delivery apps. May consider investigating this topic in other geographical and cultural settings. Moderating variables should be considered in future studies.
(Teng et al., 2023)	Partial least squares-structural equation modeling was used as the data analysis approach.	UTAUT	PT was found to have a significant impact on the intention to use.	Suggested that survey different culture's consumers and perform comparison analyses or multigroup analyses. Distinguishing between distinct styles of restaurants and cuisine types.

2.4.9 Risk (PR)

A person's risk perception can be defined as their comprehension and judgement of the potential unfavourable consequences that could be the result of technology usage (Dowling & Staelin, 1994). Additionally, customers have little signs about the service or

product, which heightens their uncertainty about whether or not they will achieve their desired purchase outcome (Forsythe & Shi, 2003). In the case of online purchases for food delivery, the consumer's expectation of what might go wrong as a direct result of an online transaction is seen as part of the perceived risk of making such a purchase. Thus, online food delivery transactions can be risky because the product or service may not meet expectations, be lost during delivery, take too long, cost too much, or compromise data privacy and security. Customers that believe this will not use online food delivery due to the risks (Shao, Zhang, Li, & Guo, 2019).

Hwang and Choe (2019) establish that perceived risk had a positive influence on the intention to use and the willingness to pay more in the context of drone delivery service. The most important contribution of the study is pertaining to the suggestion to foodservice companies providing this apps services on how to reduce the perceived risk of their services. The study by Poon and Tung, (2022) found perception of risk have a negative impact on their intention to use OFDA due to a complicated mechanism that influenced their motivation to act in a particular manner. The findings imply that people who use online food delivery services consider a variety of critical risk factors when deciding what motivates them. The fact that consumers have any of these concerns at all demonstrates that their desire and intention to use OFDA are being hindered. Consumers have a tendency to be more motivated to engage with online food delivery services if they perceive that there will be minimal adverse effects brought on by the engagement. Therefore, it is up to restaurants and operators of online food delivery to managing and mitigating the risks.

Gupta and Duggal (2021) revealed that perceived risks negatively impacted online food delivery usage and behavioural intentions. It was because the users were

psychologically concerned about the perceptions of late food delivery, improper food hygiene maintained during the delivery, and food not being served as per their religious ethics and beliefs. Fear of fraud while ordering food online and the practice of levying convenience or delivery charges by the food aggregators were also found to be significant perceived risk factors among OFDA users. Table 2.10 summarises the previous studies on risk and behavioural intention to use OFDA.

Table 2.10: Risk (PR) and Behavioral Intention to Use (BI) on OFDA

Author	**Methodology**	**Theory/Model**	**Findings**	**Future Research Direction**
(Zanetta et al., 2021a)	Data was examined by means of covariance-based SEM.	UTAUT2	PR has a significant effect on the intention to use.	The risk perception of COVID-19 should be better explored
(Jasim et al., 2022)	This study used SPSS to examine data	UTAUT2	PR have a significant impact on the intention to use.	Mixed approach of data collection A qualitative study is highly recommended
(Yen, 2022)	SEM was used to analyse the data.	Stimulus–organism–response (SOR)	PR has significant impact on the intention to use.	May conduct cross-cultural research.

Table 2.10: Continued

Author	Methodology	Theory/Model	Findings	Future Research Direction
(Wen et al., 2022)	analysed using PLS-SEM.	Theory Planned Behaviour Technology Acceptance Model	PR have a significant effect on the intention to use.	May collect data in multiple countries and conduct a cross-cultural comparison. May also collect data on a longitudinal basis.
(Gupta & Duggal, 2021)	Tested on a factor model using 31 constructs followed by the structural model.	Theory Planned Behaviour	PR have a significant relationship on the intention to use.	Might select a sample which is a representative of broader consumer groups to provide more wide-ranging results.
(Poon & Tung, Hui En, 2022)	analysed using PLS.	Theory Planned Behaviour	PR have a significant impact on the intention to use.	Recommended to collect data in other parts of Malaysia and other countries to provide a broader view of perceived risk among OFD consumers.

2.4.10 Age, Gender, and Experience

In recent years, there has been a significant increase in the number of studies investigating how age affects the technology use decisions among consumers (Belanche et al., 2020b; Hwang et al., 2019). Previous research has suggested that age is an important factor in the use of technology. For instance, for user interfaces associated with age-friendly design, such as a reduction in the complexity of menus, better resolution, and larger screen and button sizes (Petrovčič, Rogelj, & Dolničar, 2018), previous research has suggested that age is an important factor. In addition, earlier studies have shown that age has an effect on the way in which information is processed, particularly in apps that have a high degree of variability (Belanche, Cenjor, & Pérez-Rueda, 2019).

In marketing, gender is regarded as an important segmentation variable and plays a significant part in determining how customers evaluate various products and services. The differences between men and women have significant implications for the decision-making process (Venkatesh & Davis, 2000). Recent research has demonstrated that gender differences exist in terms of preferences for the utilisation of various software platforms (Alalwan, Rana, Dwivedi, & Algharabat, 2017), application software (Belanche et al., 2019), and technological devices (Cai, Fan, & Du, 2017).

Since the process of adopting new technology can vary depending on factors such as age and gender, businesses need to devise distinct plans for male and female customers (Lin, Featherman, & Sarker, 2017). For instance, businesses that offer drone food delivery (DFD) services would be more likely to achieve high levels of customer satisfaction if they were aware of the gender differences for the adoption of new technologies. This would allow them to tailor their offerings specifically to the needs of male and female customers. For instance,

Hwang et al. (2019) explored the moderating role of gender and age in helping to manage customers effectively and efficiently in the context of drone food delivery (DFD) services. Besides, the study by Belanche, Flavián, and Rueda (2020a) discovered that when marketers had an understanding of the differences that could be caused by factors such as age, gender, and occupation, they were able to design more accurate segmentation and apply different marketing strategies based on the varying requirements of different consumers. Previous research has suggested that demographic factors may have an effect on the dependent variable (Tandon et al., 2020a, 2020b; Tandon, Jabeen, et al., 2021; Tandon, Kaur, et al., 2021). In research on how people use new technologies, age and gender are important factors to consider (Talwar et al., 2019,2020). Control variables were used in a previous study to assess the impacts of the independent variables included age, gender, education level, and household size. The use and adoption of any internet-based technological product, including food delivery apps, was found to be influenced by these demographic factors (Kumar & Shah, 2021).

Thus, Song et al. (2021a) suggested that further research be conducted to gain an understanding of the perceptions held by various age groups or generations, which influence the attitudes and behaviours of individuals in relation to app adoption. For instance, researchers found that both age and gender had a significant influence on the association between attitude and the intention to spread favourable word of mouth regarding drone-enabled food delivery (Hwang & Kim, 2019). In addition, it was discovered that the gender of consumers had a moderating influence on the food delivery applications they used (Kaur, Dhir, Talwar, & Ghuman, 2020). In a similar vein, it was found that age played a role in determining the association between consumers' attitudes and their behavioural responses to e-commerce (Wang, Somogyi, & Charlebois, 2020). Hence, Song et al. (2021b) concluded

that as the number of people using smartphones continues to rise across the board, it will be necessary to create delivery apps that are convenient and straightforward to be used by people of all ages (Song et al., 2021a). Its similarly with the finding stated that older consumers are less inclined to adopt new technology (AlHadid et al., 2022). This may be because older people are less flexible to technological change whereas younger people are more flexible to changing technology (Singh, Singh, Kalinić, & Liébana-Cabanillas, 2021).

The most important moderating effects that the literature has deemed relevant to the adoption of new technology were incorporated (Liébana-Cabanillas et al., 2021). The demographic variables play an important part in influencing people's behaviors, however analyses regarding the moderating effect of demographic variables are somewhat limited (Talukder et al., 2023). Paul & Spiru, (2021) argue that demographic factors do not influence the adoption and usage of new technology. Nevertheless, there is overwhelming empirical evidence in recent studies showing that demographic factors has an influence on technology adoption (AlHadid et al., 2022; Kasilingam & Krishna, 2021; Talukder et al., 2023).

Therefore in this study, the moderating effect of age, gender and experience were examined. Originally, the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model as moderators between behavioural intention to use and online food delivery applications.

2.5 Hypotheses Development

Performance expectancy is the anticipation of a user, in which a person feels that by utilising a system, they would be able to improve their task or professional performance. This may be thought of as an individual's belief that they will be able to get better results as a result of using the system. Therefore, people are more willing to use new technology if they believe it will increase their performance at work. This is because people tend to be more optimistic about their own abilities (Venkatesh et al., 2003, 2012). Study of Alalwan (2020b) found that when people strongly believed that technology could help them do their jobs, their intentions to use it grew. Similarly to Ramos (2022), the findings that the continuation intention towards food delivery apps could be predicted by the elements uncovered, including performance expectancy, confirmed that customers perceived an increased benefit, such as saving the time and effort needed to prepare meals. These findings affecting the significant influence of performance expectancy in the food delivery apps context. Hence, this study hypothesised that:

H1: Performance expectancy (PE) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications

A system's ease of use can be defined as having a specific effort expected in relation to the degree of simplicity associated to the operation of the system. This can also be thought of as having a given level of simplicity. Customers may have the impression that there are some challenges associated with the utilisation of the technology when they first begin various tasks (Venkatesh et al., 2003). Therefore, the structure of an online food delivery application and its capacity to effectively execute the online food orders placed by customers are the most critical factors in determining whether or not a consumer would make a purchase from that particular online food delivery application (Gunden et al., 2020a, 2020b;

Saad, 2021). The study by Ramos (2022) discovered that customers' continuance use intention towards online food delivery applications was affected by their previous experiences about effort performance. In addition, customers must be able to successfully complete the entire process of placing an order for food using the online food delivery applications without needing any support or assistance from the restaurant staff in order to be eligible for the service. Therefore, a customer's intention to utilise the apps could be influenced by their view of how easy and uncomplicated it is to use those services on their mobile device. It is due to the fact that consumers place a high value on the ease and minimal effort required to use a new system. Hence, this study hypothesised that:

H2: Effort expectancy (EE) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

The term "social influence" refers to the degree to which an individual places value on the opinions and experiences of other people in order to motivate that individual to change their conduct and adopt a new approach or method (Venkatesh et al., 2003). Roh and Park (2019) found that participants in their study held the idea that social influence had a substantial impact on the participants' intention to use. This belief was supported by the findings of the researchers' investigation. Both an individual's opinion that an application is compatible with their way of life and their expectations regarding the results of utilising the application were impacted by the social pressure that was imposed by other people. Jasim et al. (2022) indicated that effect of social influence on the customers' behavioural intention have an important relationship on the consumers' intentions. According to what was discussed, one's ability to motivate themselves may improve if they are surrounded by a certain degree of support from individuals in their personal and professional lives, such as family members, friends, and coworkers. Hence, this study hypothesised that:

H3: Social influence (SF) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

The technological infrastructure and human support that is easily available whenever it is wanted by customers is a primary factor in determining the extent to which applications are used and the degree to which customers are satisfied with their experience in using such applications (Venkatesh et al., 2003). It is a term used to describe the conditions under which a consumer is more likely to have the intention to use a technological product such as availability of money and time, as well as access to the internet and cognitive and motor capacities. Customers also prioritise the quality of the applications and their capacity to operate reliably without experiencing any interruption or practical issues. For instance, customer services provided in ensuring high-quality services can be offered to users (Verkijika, 2018). Zanetta et al. (2021) revealed that the effect of facilitating conditions on continuance intention was significantly stronger in the context of online food delivery in Brazil. They believed that if there was adequate organisational and technical infrastructure to support the use of technology, consumers would have a strong intention to use the technology. As a result, when establishing the facilitating conditions, elements like the availability of money and time, as well as knowledge and resources for using technology, could have an impact on one's decision to continue using it. For example, the customer could download an app that gave them access to a variety of restaurants' menus, allowing them to order food whenever and wherever they wanted. Hence, this study hypothesised that:

H4: Facilitating condition (FC) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

Price value defined as the cognitive exchange between the perceived benefits of an application and the monetary cost of using it (Venkatesh et al., 2016). When customers believe that the value they receive from using an application is greater than the cost of using it, the price value has a positive influence on their intention to use the application. Previous research has suggested that the use of applications for online food delivery does not incur any kind of financial cost, as there is no additional fee that must be paid for the installation of a free app (Alalwan, 2020b; Shaw & Sergueeva, 2019). However, customers can obtain significant monetary savings through loyalty programmes or discounts, availability of comparative prices, and simplicity of choosing (Koiri et al., 2019; Tomacruz & Flor, 2018; Jain, Verma, & Jaggi, 2020; Saad, 2021). It is considered a benefit when an online food delivery app provides its clients with loyalty programmes or discounts in such a way that the consumers earn a sizeable amount of monetary savings as a result of participating in the programme or taking advantage of the discount. Hence, this study hypothesised that:

H5: Price value (PV) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

Hedonic motivation can be said as playfulness, enjoyment, fun, and pleasure that can be resulting from using new products, services, and applications in utilising new systems is present in the experience (Venkatesh et al., 2012). For instance, applications such as mobile food ordering apps (MFOAs) are regarded as being cutting-edge and innovative, which may give customers a sense of satisfaction and pleasure when utilising the innovative new software (Okumus et al., 2018b;Yeo et al., 2017b). Moreover, hedonic motivation had a

positive effect on how customers saw the convenience and usefulness of OFDA. For example, how customers felt about how much fun they were having affected their desire to use mobile online food delivery apps (Yeo et al., 2021). Therefore, users will placed a high value on the fun features of OFDA because hedonic motivation is concerned with the enjoyment that may be received from the usage of technology. Hence, this study is hypothesised that:

H6: Hedonic motivation (HM) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

Limayem, Hirt, and Cheung (2007) defined habit as an individual's propensity to act without a conscious thought as a result of the individual's accumulated learning experience. People are becoming more dependent on their smartphones and have developed a pattern of behaviour regarding the use of the mobile applications that are associated with them. The formation of habitual behaviour as a result of learning experience, could have an impact on customers' attitudes and beliefs, which, in turn, predict their continued intention to behave in the same manner as they did in the past. In addition, the influence of habit on the continuation intention is dependent on familiarity with the technology. This means that the continuity intention grows as an individual becomes more familiar with a specific technology (Zanetta et al., 2021a). Therefore, the assumption that consumer routines play a crucial role in determining the extent to which consumers intend to make advantage of online food delivery. In addition, the significance of this discovery lies in the fact that customers who are confronted with an unfamiliar system will eventually rely on the same routines that have persistently guided their behaviour throughout the course of their lives. Hence, this study hypothesised that:

H7: Habit (HA) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

Trust was defined as any possibility that customers expect from a web merchant to carry out a specific transaction in accordance with their confident expectations (Pavlou, 2002). Many scholars have studied the influence of trust on behavioural intention, for instance Jasim et al. (2022) has been hypothesised that trust has a considerable favourable effect on a person's behavioural intention to use drone food delivery (DFD) services context. They discovered that customers' confidence in the delivery system could increase their eagerness to rely on the drone for their day-to-day food needs. The findings are consistent with the findings of prior research that looked at the role of trust as a significant predictor of how well people will adapt to new technologies. Notably, previous studies finding shown that customers' perceived level of trust was one of the elements that influenced their intention to use online food delivery services. Users and owners of applications for online food delivery are provided with information regarding the components of the overall technology on which they should concentrate their attention. It would appear that the appropriateness of technology in terms of its fit, perceived trust, and operational period should be examined in order to improve the overall success of online food delivery apps. This is particularly important in light of the fact that these applications are becoming increasingly popular Hence, this study hypothesised that:

H8: Trust (PT) has a significant relationship on the behavioural intention to use (BI) online food delivery applications

A person's risk perception can be defined as their comprehension and judgement of the potential unfavourable consequences that could be the result of their decision-making

process (Dowling & Staelin, 1994). Additionally, customers have fewer clues about the service or product, which heightens their uncertainty about whether or not they will achieve their desired purchase outcome (Forsythe & Shi, 2003). In the case of online purchases for food delivery, the consumer's expectation of what might go wrong as a direct result of an online transaction is seen as part of the perceived risk of making such a purchase. Thus, online food delivery transactions can be risky because the product or service may not meet expectations, be lost during delivery, take too long, cost too much, or compromise data privacy and security. Customers that believe this will not use online food delivery due to the risks (Shao et al., 2019). The fact that consumers have any of these concerns at all demonstrates that their desire and intention to use online food delivery services are being hindered. Consumers have a tendency to be more motivated to engage with online food delivery services if they perceive that there will be minimal adverse effects brought on by the engagement. Therefore, it is up to restaurants and operators to managing and mitigating the risks.Hence, this study hypothesised that:

H9: Risk has a significant relationship on the behavioural intention to use online food delivery applications

Behavioural intention evaluates a user's likelihood to perform a future action (Venkatesh et al., 2003, 2016). According to Bhattacherjee (2001) and Bhattacherjee and Lin (2015), people's intentions to use a technical product or service are analogous to repeat purchases; however, the acceptance of technology and the continuation of its use are two completely separate concepts, both conceptually and historically. Acceptance begins when a person first encounters a new technology. This is because acceptance is a process that builds on familiarity. The findings of Palau et al. (2019) also strongly support the applicability of mobile applications for restaurant searches and/or reservations (MARSR)

context, which revealed that the drivers of the intentions to use were habit, perceived credibility, hedonic motivation, performance expectancy, effort expectancy, price-saving orientation, social influence, and facilitating conditions. The main finding was that customers would have positive intentions to adopt the apps as long as they perceived that the applications would safeguard their personal information. Hence, this study hypothesised that:

H10: Behavioural intention to use (BI) has a significant relationship on online food delivery applications usage (UB)

The mediating effects is to reach a conclusion on the significance of a mediation model, the only requirement is the approval of a significant indirect effect (Gürbüz & Bayık, 2021). Therefore, an indirect effect must occur regarding the role of behavioural intention to use (BI) as a mediator of the relationships between technology acceptance factors and online food delivery usage (UB). However, the direct effects of performance expectancy, effort expectancy, social influence, facilitating condition, price value, hedonic motivation, habit, trust, and risk on usage were not examined as it was unnecessary to do so and might be a hindrance to theory building (Memon et al., 2018).

The significance of a mediation model mainly depends on the design decisions that should be considered before performing any analysis and even before conducting the research. The need for a mediator in a model must be explicitly raised and justified up front by responding to why a mediator is needed and which variable should be considered the mediator (Ali Memon et al., 2018). Therefore, one of the greatest strengths of mediation analysis is in building and refining theory. This is because many theories are based on the results of cross-sectional studies with little or no experimental verification. Therefore, the

mediation analysis in a randomised design that is often used in intervention research is ideal for testing theories (MacKinnon, Coxe, & Baraldi, 2012). A mediation effect will most probably occur when the relationship between the determining factor and the mediator, as well as the relationship between the mediator and the dependent variable, are established (Memon et al., 2018; Gürbüz & Bayık, 2021; Meule, 2019). Previous studies developed and tested the relationship between behavioural intention to use and use behaviour via the extended UTAUT 2 model in the online food delivery context (see Ali, Khalid, Javed, & Islam, 2020; Tran, Rizov, & Rosen, 2021; Ramos et al., 2021; Candra, Ayudina, & Arashi, 2021; Puriwat & Tripopsakul, 2021; Palau-Saumell et al., 2019; Jasim et al., 2022). Their empirical results revealed a significant relationship between behavioural intention to use and actual online food delivery usage.

From the previous studies of Ifedayo, Ziden, and Ismail (2021) expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. It is important to note here that, to the best of researcher's knowledge, lack of studies have examined the mediating effect of behavioral intention to use behaviour adopting UTAUT 2 framework in online food delivery applications context. Therefore, the conceptual framework provides a new structure to enhance one's understanding of the mediating effect of behavioural intention to use on the relationships between the technology acceptance factors namely performance expectancy, effort expectancy, social influence, facilitating condition, price value, habit, hedonic motivation, trust, risk and OFDA usage. Therefore, this study included behavioural intention

to use as a mediator between technology acceptance factors and OFDA usage. Hence, the study hypothesised that:

H11a: Behavioural intention to use (BI) mediates the relationship between performance expectancy (PE) and online food delivery applications usage (UB)

H11b: Behavioural intention to use (BI) mediates the relationship between effort expectancy (EE) and online food delivery applications usage (UB)

H11c: Behavioural intention to use (BI) mediates the relationship between social influence (SF) and online food delivery applications usage (UB)

H11d: Behavioural intention to use (BI) mediates the relationship between facilitating conditions (FC) and online food delivery applications usage (UB)

H11e: Behavioural intention to use (BI) mediates the relationship between price value (PV) and online food delivery applications usage (UB)

H11f: Behavioural intention to use (BI) mediates the relationship between hedonic motivation (HM) and online food delivery applications usage (UB)

H11g: Behavioural intention to use (BI) mediates the relationship between habit (HA) and online food delivery applications usage (UB)

H11h: Behavioural intention to use (BI) mediates the relationship between trust (PT) and online food delivery applications usage (UB)

H11i: Behavioural intention to use (BI) mediates the relationship between risk (PR) and online food delivery applications usage (UB)

Previous research has suggested that demographic factors may have an effect on the variable that is being studied as the dependent variable (Tandon et al., 2020a, 2020b; Tandon, Jabeen, et al., 2021; Tandon, Kaur, et al., 2021). In research on how people use new technologies, age and gender are important factors to consider (Talwar et al., 2020, 2019). Control variables were used in a previous study to measure the effects of the independent variables and ensure the validity of the findings. These variables included age, gender, education level, and household size. The use and adoption of any internet-based technological product, including food delivery apps, was impacted by these demographic factors (Kumar & Shah, 2021).

In addition, if users' behavioural intention to use mediates the relationships between users' technology factors, risk, trust, and usage of online food delivery applications, then there is a possibility that the moderator will change the strength of the relationships between these factors (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). Therefore, the previous discussion has indicates the existence of a positive relationship between behavioural intention to use and usage of online food delivery applications. The most important moderating effects that the literature has deemed relevant to the adoption of new technology were incorporated (Liébana-Cabanillas et al., 2021). The demographic variables play an important part in influencing people's behaviors, however analyses regarding the moderating effect of demographic variables are somewhat limited (Talukder et al., 2023). Paul & Spiru, (2021) argue that demographic factors do not influence the adoption and usage of new technology. Nevertheless, there is overwhelming empirical evidence in recent studies showing that demographic factors has an influence on technology adoption (AlHadid et al., 2022; Kasilingam & Krishna, 2021; Talukder et al., 2023).

Therefore in this study, the moderating effect of age, gender and experience were examined. Originally, the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model as moderators between behavioural intention to use and technology usage in the context of online food delivery applications. Thus age, gender and experience has included as a moderators to test the relationships between these variables. For this reason, this study aimed to test the model regarding the moderating effect of these variables (age, gender and experience). Hence, this study hypothesised that:

H12a: Age moderates the effect of behavioural intention to use (BI) on online food delivery applications usage (UB)

H12b: Gender moderates the effect of behavioural intention to use (BI) on online food delivery applications usage (UB)

H12c: Experience moderates the effect of behavioural intention to use (BI) on online food delivery applications usage (UB)

2.6 Proposed Conceptual Framework

In order to get a comprehensive picture of the factors contributing to the acceptance of OFDA among users in Sarawak, the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) formulated by Venkatesh et al., (2012) has been used as a theoretical framework to develop a research framework for this study. The UTAUT 2 integrates several main constructs in order to predict individual's intention and use of certain

new technology. Basically, this theory opined that behavioural intention may influence one's decision to use a new technology. Here, the propensity that an individual to accept a new technology rely on the direct effect of seven main constructs (performance expectancy, effort expectancy, social influence, facilitating condition, habit, hedonic motivation and price value).

Yet, it was determined that the original UTAUT 2 model needed some expansion by adding several components in order to adequately represent the behaviours of customers who purchase food using online food delivery application. This was done to make sure that the model could correctly predict what would happen in the future (Tamilmani et al., 2021). Therefore originally, seven components of the UTAUT 2 model by Venkatesh et al., (2012), namely performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, habit and price value were used as the determinants of technology acceptance factors in this study. Apart from that, based on previous findings, trust and risk were added as the determinants of technology acceptance factors (Gupta & Duggal, 2021; Hamid et al., 2022; Jasim et al., 2022). As this study focusing on the users of online food delivery application (OFDA) in Sarawak, the conceptual framework of this study as shown in Figure 2.2. Hence, the following research framework was developed:

Performance Expectancy

Performance expectancy is the anticipation of a user, in which a person feels that by utilising a system, they would be able to improve their task or professional performance. This may be thought of as an individual's belief that they will be able to get better results as a result of using the system. Therefore, people are more willing to use new technology if they believe it will increase their performance at work. This is because people tend to be more optimistic about their own abilities (Venkatesh et al., 2003, 2012). The research finding

from a research from Ramos (2022), on the continuation intention towards food delivery apps could be predicted by the elements of performance expectancy, confirmed that customers perceived an increased benefit, such as saving the time and effort needed to prepare meals. These findings affecting the significant influence of performance expectancy in the food delivery apps context.

Effort Expectancy

A system's ease of use can be defined as having a specific effort expected in relation to the degree of simplicity associated to the operation of the system. This can also be thought of as having a given level of simplicity. Customers may have the impression that there are some challenges associated with the utilisation of the technology when they first begin various tasks (Venkatesh et al., 2003). Therefore, the structure of an online food delivery application and its capacity to effectively execute the online food orders placed by customers are the most critical factors in determining whether or not a consumer would make a purchase from that particular online food delivery application (Gunden et al., 2020a, 2020b; Saad, 2021). Therefore, a user's intention to utilise the OFDA could be influenced by their view of how easy and uncomplicated it is to use those services on their mobile device.

Social Influence

Social influence refers to the extent to which an individual considers the perspectives of other people to be essential in modifying their behaviour towards using a new system (Venkatesh et al., 2003). Individual’s decision to use particular technology may also be influenced by the views of other people such as family members, friends, and co-workers, and this phenomenon is a reflection of social influence. Jasim et al. (2022) indicated that effect of social influence on the customers' behavioural intention have an important relationship on the consumers' intentions. According to what was discussed, user's ability to

motivate themselves may improve if they are surrounded by a certain degree of support from individuals in their personal and professional lives, such as family members, friends, and coworkers.

Facilitating Condition

The extent of use and the level of customer satisfaction with the technology applications are largely determined by the amount of readily available technical infrastructure and human support (Venkatesh et al., 2003). Zanetta et al. (2021) revealed the influence of facilitating conditions on continuance intention was significantly stronger in the context of OFDA in Brazil due to sufficient information technology infrastructure provided for technology support. This situation will encourage consumers to use the technology. Therefore, when establishing the facilitating conditions, elements like the availability of money and time, as well as knowledge and resources for using OFDA, could have an impact on one's decision to continue using it.

Price Value

Price value defined as the cognitive exchange between the perceived benefits of an application and the monetary cost of using it (Venkatesh et al., 2016). When users believe that the value they receive from using an OFDA is greater than the cost of using it, the price value has a positive influence on their intention to use the OFDA to purchase food and beverages. As previous research has suggested that the use of applications for online food delivery does not incur any kind of financial cost, as there is no additional fee that must be paid for the installation of a free OFDA (Alalwan, 2020b; Shaw & Sergueeva, 2019). However, customers can obtain significant monetary savings through loyalty programmes or discounts, availability of comparative prices, and simplicity of choosing (Koiri et al., 2019; Tomacruz & Flor, 2018; Jain, Verma, & Jaggi, 2020; Saad, 2021).

Hedonic Motivation

Hedonic motivation can be stated as playfulness, enjoyment, fun, and pleasure resulting from using new products, services, and applications (Venkatesh et al., 2012). For instance, applications such as mobile food ordering apps (MFOAs) are regarded as being cutting-edge and innovative, which may give customers a sense of satisfaction and pleasure when utilising the innovative new software (Okumus, Ali, Bilgihan, & Ozturk, 2018b; Yeo, Goh, & Rezaei, 2017b). Therefore, hedonic motivation might had a positive effect on how users saw the convenience and usefulness of OFDA. For example, how customers felt about how much fun they were having affected their desire to use mobile online food delivery apps (Yeo et al., 2021).

Habit

Limayem, Hirt, and Cheung (2007) defined habit as an individual's propensity to act without a conscious thought as a result of the individual's accumulated learning experience. People are becoming more dependent on their smartphones and have developed a pattern of behaviour regarding the use of the mobile applications that are associated with them. The formation of habitual behaviour as a result of learning experience, could have an impact on users' attitudes and beliefs, which, in turn, predict their continued intention to behave in the same manner as they did in the past. In addition, the effect of habit on intention is might dependent on awareness with OFDA. This means that intention develops as an individual becomes more aware of OFDA (Zanetta et al., 2021a).

Trust

In the context of online commerce, trust was defined as the subjective probability that customers expect a web merchant to carry out a specific transaction in accordance with their confident expectations (Pavlou, 2002). Notably, previous studies finding shown that

customers' perceived level of trust was one of the elements that influenced their intention to use OFDA. According to the findings of the study, users and owners of applications for online food delivery are provided with information regarding the components of the overall technology on which they should concentrate their attention. It would appear that the suitability of technology in terms of its fit, perceived trust, and operational period should be examined in order to improve the overall success of online food delivery apps. This is particularly important in light of the fact that these applications are becoming increasingly popular (Muangmee et al., 2021; Wen et al., 2022).

Risk

A person's risk perception can be defined as their comprehension and judgement of the potential unfavourable consequences that could be the result of technology usage (Dowling & Staelin, 1994). Hwang and Choe (2019) establish that perceived risk had a positive influence on the intention to use and the willingness to pay more in the context of drone delivery service. The most important contribution of the study is pertaining to the suggestion to foodservice companies providing this apps services on how to reduce the perceived risk of their services. Hwang and Choe (2019) establish that perceived risk had a positive influence on the intention to use and the willingness to pay more in the context of drone delivery service.

Behavioral Intention to Use as a Mediator

Behavioural intention evaluates a user’s likelihood to perform a future action (Venkatesh et al., 2003, 2016). It can also be referred to as a person’s propensity to use technology or to maintain current level of technology use in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Other study uses customers’ stated intentions to predict their usage patterns (Alassafi, 2022). In other word,

acceptance begins when a person first encounters a new technology. This is because acceptance is a process that builds on familiarity. In later stages, the significance of other choice variables will become more apparent. Previous studies developed and tested the relationship between behavioural intention to use and use behaviour via the extended UTAUT 2 model in the online food delivery context (see Ali, Khalid, Javed, & Islam, 2020; Tran, Rizov, & Rosen, 2021; Ramos et al., 2021; Candra, Ayudina, & Arashi, 2021; Puriwat & Tripopsakul, 2021; Palau-Saumell et al., 2019; Jasim et al., 2022). Their empirical results revealed a significant relationship between behavioural intention to use and actual online food delivery usage.

In the simple mediation, where X (independent variable) M (mediator variable) Y (dependent variable) in the standard causal system, only one mediator exists in the relationship model (Zainuddin Awang, Hui, & Zainudin, 2018). From the previous studies of Ifedayo, Ziden, and Ismail,(2021) expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. It is important to note here that, to the best of researcher's knowledge, lack of studies have examined the mediating effect of behavioral intention to use behaviour adopting UTAUT 2 framework in online food delivery applications context. Therefore, the conceptual framework provides a new structure to enhance one's understanding of the mediating effect of behavioural intention to use on the relationships between the technology acceptance factors namely performance expectancy, effort expectancy, social influence, facilitating condition, price value, habit, hedonic motivation, trust, risk and OFDA usage.

Age, Gender and Experience as a Moderator

Finally in the moderating effects, before introducing a moderator into the model, the effects of independent variable X on its dependent variable Y must exist and significant. Thus, when a moderator M enters the model, the causal effects would change due to some "interaction effect" between independent variable X and moderator variable M just entered (Zainuddin Awang et al., 2018). Therefore, the previous discussion has indicates the existence of a positive relationship between behavioural intention to use and usage of online food delivery applications. The most important moderating effects that the literature has deemed relevant to the adoption of new technology were incorporated (Liébana-Cabanillas et al., 2021). The demographic variables play an important part in influencing people's behaviors, however analyses regarding the moderating effect of demographic variables are somewhat limited (Talukder et al., 2023). Paul & Spiru, (2021) argue that demographic factors do not influence the adoption and usage of new technology. Nevertheless, there is overwhelming empirical evidence in recent studies showing that demographic factors has an influence on technology adoption (AlHadid et al., 2022; Kasilingam & Krishna, 2021; Talukder et al., 2023).

Therefore in this study, the moderating effect of age, gender and experience were examined. Originally, the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). The most important moderating effects that the literature has deemed relevant to the adoption of new technology were incorporated (Liébana-Cabanillas et al., 2021). The demographic variables play an important part in influencing people's behaviors, however analyses regarding the moderating effect of

demographic variables are somewhat limited (Talukder et al., 2023). It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model as moderators between behavioural intention to use and technology usage in the context of online food delivery applications. Thus age, gender and experience has included as a moderators to test the relationships between these variables.

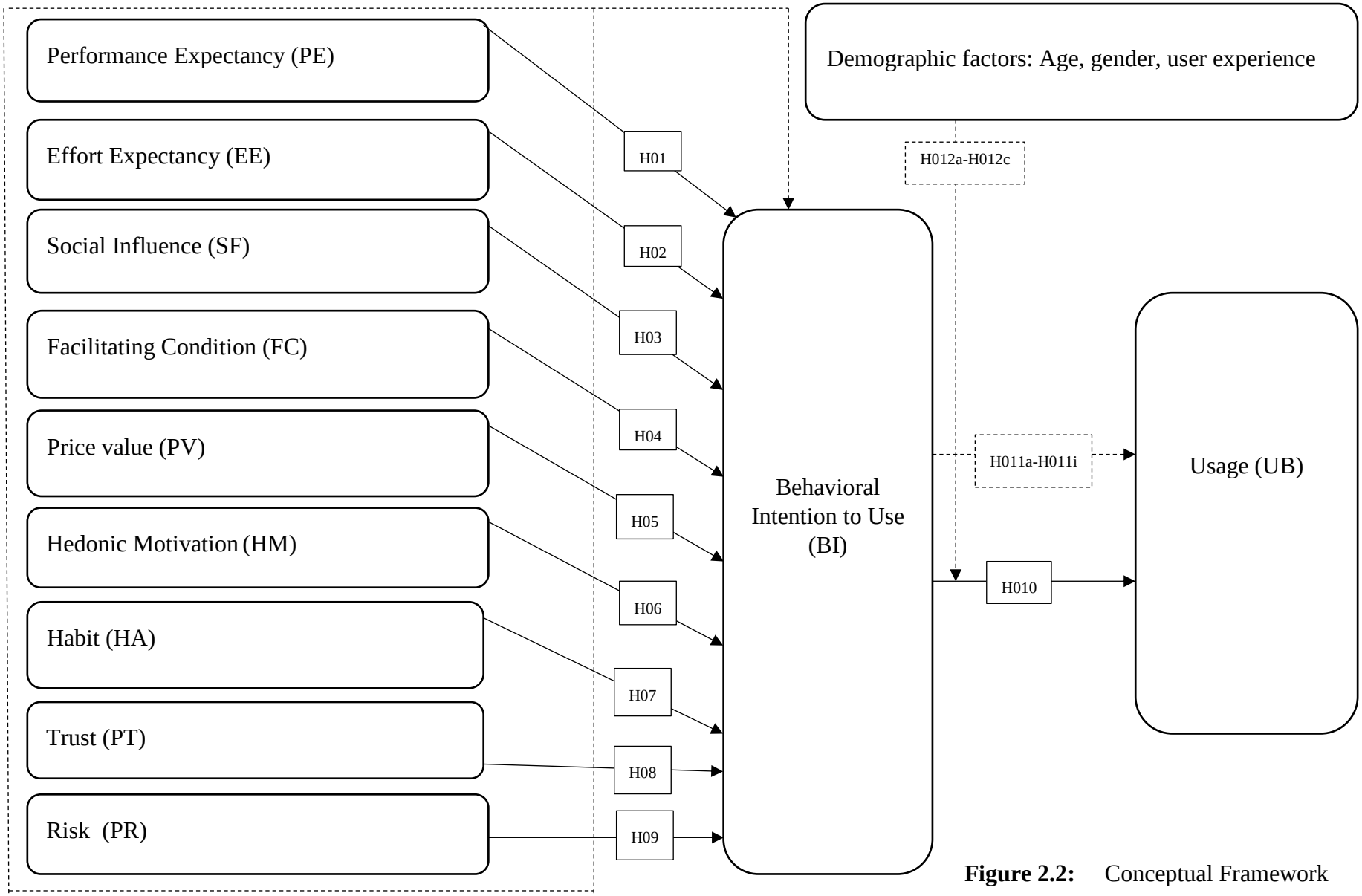


Figure 2.2: Conceptual Framework

2.7 Chapter Summary

As more people have access to the internet and the rapid penetration of smartphones has led to the growth of OFDA which let customers order food online and have it delivered (Cho et al., 2019a; Zhao & Bacao, 2020). Therefore, in order to get a comprehensive picture of the factors contributing to the acceptance of OFDA among users in Sarawak, the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) formulated by Venkatesh et al., (2012) has been used as a theoretical framework to develop a research framework for this study. Thus in this study, behavioral intention to use OFDA referred to as a user's maintain their current level of their usage in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Therefore originally, seven components of the UTAUT 2 model by Venkatesh et al., (2012), namely performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, habit and price value were used as the determinants of technology acceptance factors in this study. Apart from that, based on previous findings, trust and risk were added as the determinants of technology acceptance factors (Gupta & Duggal, 2021; Hamid et al., 2022; Jasim et al., 2022). Additionally, from the previous studies of Ifedayo, Ziden, and Ismail,(2021) expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. It is important to note here that, to the best of researcher's knowledge, lack of studies have examined the mediating effect of behavioral intention to use behaviour adopting UTAUT 2 framework in online food delivery applications context. Therefore, the conceptual framework provides a new structure to enhance one's understanding of the mediating effect of behavioural intention to use on the relationships between the technology acceptance factors namely performance expectancy, effort

expectancy, social influence, facilitating condition, price value, habit, hedonic motivation, trust, risk and OFDA usage. Moreover, originally, the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model as moderators between behavioural intention to use and technology usage in the context of online food delivery applications. Thus age, gender and experience has included as a moderators to test the relationships between these variables in the context of OFDA among users in Sarawak.

CHAPTER 3

METHODOLOGY

3.1 Introduction

In achieving the objectives outlined for this study, the researcher will explain thoroughly all the methodological and procedural work used for conducting this research. This chapter provides comprehensive descriptions of the research paradigm employed in this research, followed by the research designed comprising research strategy and time horizon. Then, an explanation on the sampling procedure determine the target population, the sampling frame, sample size and technique and the sampling size is provided. This is followed by the development of research instruments, pilot study, the procedure for data collection method and procedure. Finally, the procedure of data analysis employed to test all the hypotheses outlined for this study.

3.2 Research Paradigm

The selection of an appropriate research paradigm depends upon the research questions being answered in the research process (Hair, Celsi, Money, Samouel, & Page, 2015). Based on the nature and context of the research questions being investigated, positivism was used in this study. Positivism includes a priori assumptions in the form of hypotheses that are established for statistical analysis to facilitate the model validation. The positivist analysis is concerned with the significance of empirical evidence and emphasises the importance of deductive analysis that would contribute to the compilation of facts in order to provide the basis for the subsequent testing of hypotheses. As a positivist, to avoid affecting the outcome, the researcher also tries to remain objective and distant from analysis and data. This is a logical stance for positivists, because of the measurable, quantifiable

evidence that they obtain. They appear to be external to the data collection process, as nothing can be done to change the content of the collected data (Saunders, Lewis, & Thornhill, 2019).

The survey method was adopted for this study's investigation into the relationships between technology acceptance factors, behavioural intention to use, and OFDA usage. This method is adequate for measuring the attitudes and characteristics of large populations. Additionally, it may be possible to make generalisations to broader groups beyond the sample. Besides that, applying the scientific method enables researchers to rely on objective measures or data to support their findings and verify the hypotheses. In the present study, an internet survey was conducted to gather quantitative data from online food delivery application users in Sarawak.

Other than that, the data can be used for the purpose of verification in future studies as it is important for theory testing. Hence, the positivist approach used in this study helped in the investigation of the relationships between technology acceptance factors, behavioural intention to use, and usage of OFDA in Sarawak, Malaysia.

3.3 Research Design

The research design denotes the comprehensive strategy that the researcher uses to integrate the study's distinguished elements rationally and logically in ensuring effectiveness in addressing the research problem (Vaus, 2001; Trochim, 2006). The research design selected by a study depends on the study's objectives and research questions. The present study aimed to investigate the relationships between technology acceptance factors, intention to use, and usage of OFDA. Therefore, a causal effect research design was suitable for achieving the study's objectives and answering the research questions. Causal research is

most appropriate when the research objectives include the need to understand the reasons why certain phenomena happen as they do (Saunders et al., 2019).

3.3.1 Research Strategy

The researcher chose the survey method as the research strategy for this study. A survey is one of the most popular research methods, and it can be utilised in causal, exploratory, and descriptive research to gather data about individuals, situations, or events (Sekaran & Bougie, 2005). There are a few points of interest in applying the survey technique, as stated below (Burn, Veeck, & Bush, 2017):

1) Surveys accommodate standardisation because the respondents address similar questions with a similar scale.
2) Surveys are easy to administer as they are directed by the questioner where at some point, they will assist the respondents with recording the appropriate responses immediately and without any problem. However, as a rule, the respondents will read and answer the survey alone.
3) Surveys include countless of respondents. Hence, the analyst can easily divide the sample based on demographic groups or other different groups and then decide which is useful for understanding the market division implication.

3.3.2 Time Horizon

This study selected cross-sectional investigation, referred to as one-shot study, in which the data is normally gathered at a certain point, maybe over several days or weeks or months to answer an exploration (Sekaran & Bougie, 2016). The research participants were selected based on the variables of interest in the research framework (Cherry, 2019). The cross-sectional study design was the practical way to measure the relationships between

technology acceptance factors, behavioural intention to use, and OFDA usage among the users in Sarawak, Malaysia. The cross-sectional research design was adopted based on some advantages as suggested by Zikmund et al. (2013). First, this research design helps in testing the hypotheses, which is the purpose of this study. Second, data collection is quick and more cost-effective because no follow up is required. Third, the data for all constructs are gathered using a single research instrument. In this context, the cross-sectional research study seemed an appropriate research design and was chosen as addressing this study's research questions. With the implementation of a quantitative research approach, a survey questionnaire was distributed to obtain responses from the respondents. In this study, the data was collected from December 2022 to March 2023. The questionnaires were distributed to randomly selected respondents through an online survey. The respondents could complete the questionnaire at their own convenient time.

3.4 Sampling Procedure

The determination of an appropriate sampling procedure and sample size is regarded as a crucial component in almost all quantitative research studies (Collis & Hussey, 2014). Sampling is the process of selecting the population segment for inquiry. It is a process of selecting a sample of units from a data set to measure people’s characteristics, beliefs, and attitudes. In practically all quantitative research investigations, figuring out an acceptable sample size and deciding the sampling strategy to use is regarded as an essential step in the research process. This is because research on the entire population is not practical due to time, money, and access constraints. Thus, a representative part of a population, known as the sample, is chosen for analysis. It represents the whole population as the full set (Saunders et al., 2019). The steps involved in the sampling process are determining the target population, the sampling technique and the sampling size.

3.4.1 Target Population of Study

With the end goal for the research to deliver great results, the population must be characterised specifically as indicated by Sekaran and Bougie, (2016) as a population is the whole gathering of individuals and occasions that the researcher needs to explore or is determined by the objectives of the investigation. According to Statista (2021), there were 6.9 million OFDA users in Malaysia in 2020, and around 28.4 million Malaysians used their mobile smartphones to access the internet, with 64 percent of them using restaurants' online food delivery applications to purchase food products (MCMC, 2020). The greatest concentration of food delivery services may be found in major urban areas such as Kuala Lumpur, the Klang Valley, and Johor Bahru (Nayan & Hassan, 2020). It is because delivery app users have maintained a similar demographic, most of these areas face the most traffic, just going out to the restaurant for a meal could take a fair bit of time, so food delivery services provide an efficient and practical alternative. Despite the significance of OFDA in Malaysia and the shifting consumer behaviour towards these services, only a few studies have investigated consumers' behavioural intentions to use OFDA in Sarawak. Most of those studies were done in major urban areas such as Kuala Lumpur, the Klang Valley, and Johor Bahru (Pitchay et al., 2021; Chai et al., 2019; Ramli, Ghani, Nawawi, & Majid, 2021). Although the OFDA industry seems very promising, the nature of this market is poorly understood (Agus, & Aceh, 2020;Yeo, Goh, & Rezaei, 2017), especially in the context of Sarawak. Therefore, this study's target population comprised of online food delivery application users in Sarawak and according to the Internet Users Report, the East Malaysia region consisting of Sarawak, Sabah, and Labuan recorded almost 96% more likely to be familiar with digital identity to those in the Central region (Selangor, Wilayah Persekutuan Kuala Lumpur, and Wilayah Persekutuan Putrajaya) (MCMC, 2020). Delivery

app users have maintained a similar demographic, most of these areas face the most traffic, just going out to the restaurant for a meal could take a fair bit of time, so food delivery services provide an efficient and practical alternative. This means that the driving force of the OFDA services industry may be due to technology adoption and consumer lifestyle changes, which support the growth of the market. With the help of the Internet and mobile technology, OFDA services can be easily accessed through mobile devices, which greatly encourage consumers to use OFDA services in their daily food consumption. The main goal of this study was to determine the inter-relationships among the constructs, in particular, technology acceptance factors, behavioural intention to use, and usage of OFDA in Sarawak, Malaysia.

Moreover, internet users in Malaysia are mostly adults in their 20s, 30s, and 40s. These individuals account for 46.0%, 21.2%, and 12.3% of internet users accordingly, which accounts for 79.5% of total internet users (MCMC, 2020). A study should broaden the sample to include different generational cohorts in order to improve the credibility of the findings (Lee et al., 2019; Muda & Khan, 2020). However, the present study broadened the sample population by using four different generational cohorts: boomer generation comprising those who were born between 1946 and 1965, generation X comprising those born between 1966 and 1980, generation Y encompassing those born between 1981 and 1994, and generation Z consisting of those born in 1995 and after (Brosdahl & Carpenter, 2011; Lissitsa & Kol, 2021). It is because there has been a significant increase in the number of studies investigating how age affects the technology use decisions among consumers (Belanche et al., 2020b; Hwang et al., 2019). Previous research has suggested that age is an important factor in the use of technology. For instance, for user interfaces associated with age-friendly design, such as a reduction in the complexity of menus, better resolution, and

larger screen and button sizes (Petrovčič et al., 2018), previous research has suggested that age is an important factor. In addition, earlier studies have shown that age has an effect on the way in which information is processed, particularly in apps that have a high degree of variability (Belanche et al., 2019).

As well as, gender is regarded as an important segmentation variable and plays a significant part in determining how customers evaluate various products and services. The differences between men and women have significant implications for the decision-making process (Venkatesh & Davis, 2000). Recent research has demonstrated that gender differences exist in terms of preferences for the utilisation of various software platforms (Alalwan et al., 2017), application software (Belanche et al., 2019), and technological devices (Cai, Fan, & Du, 2017). Since the process of adopting new technology can vary depending on factors such as age and gender, businesses need to devise distinct plans for male and female customers (Lin et al., 2017). This would allow them to tailor their offerings specifically to the needs of male and female customers. Hence, the selection of respondents also was based on Foodpanda and GrabFood coverage areas of online food delivery services. It was because Foodpanda (70.36%) and GrabFood (63.19%) were the popular online food delivery applications among Malaysian online food delivery application users due to their user-friendly features (Tan et al., 2021). Further, GrabFood is available in Kuching, Miri, Bintulu, and Sibu, and Foodpanda is available in Kuching, Petrajaya, Miri, Sibu, Bintulu, dan Samarahan.

Therefore, this study focused on online food delivery applications users aged above 18 years old and focusing on those who has experience using the online food delivery applications in Sarawak. Therefore users experience usage in this study defined as those who

had used online food delivery applications at least between less than a year and more than 3 years. The researcher believed this level of usage experience would make the users well-positioned to provide their experiences of using this online food delivery applications. As this study referring to user's propensity to use technology or to maintain current level of technology use in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Other study uses customers' stated intentions to predict their usage patterns (Alassafi, 2022). Therefore three questions included in Section A in the questionnaire namely 'Have you ever ordered food through online?', 'How often do you typically order food online?', and 'Online Food Delivery Applications usage experience' has been asked for the purpose of screening questions.

3.4.2 Sampling Frame

The sample frame is the group of individuals that can be selected from the target population given the sampling process used in the study. Given that the sample may represent only a portion of the target population, the researcher needs to examine carefully whether the selected sample frame fits the study objectives or hypotheses, and especially if there are strategies to overcome the sample frame limitations (Martínez-Mesa, González-Chica, Duquia, Bonamigo, & Bastos, 2016). The sampling frame must be created on the grounds that the real list of the target population was not accessible (Raifman, Devost, Digitale, Chen, & Morris, 2022). According to Statista (2021), there were 6.9 million OFDA users in Malaysia in 2020, and around 28.4 million Malaysians used their mobile smartphones to access the internet, with 64 percent of them using restaurants' online food delivery applications to purchase food products (MCMC, 2020). However, there was no sampling frame for this study due to the unavailability of an exact listing of the population using OFDA in Sarawak. Therefore, sampling frame must be created due to the list of target

population was not accessible. Hence, sampling frame is based on the selection of respondents was based on Foodpanda and GrabFood coverage areas of online food delivery services in Sarawak. It is because Foodpanda (70.36%) and GrabFood (63.19%) were the popular online food delivery applications among Malaysian online food delivery application users due to their user-friendly features (Tan et al., 2021). Further, GrabFood is available in Kuching, Miri, Bintulu, and Sibu, and Foodpanda is available in Kuching, Petrajaya, Miri, Sibu, Bintulu, dan Samarahan. Therefore, this study focused on online food delivery applications users aged above 18 years old and focusing on those who has experience using the online food delivery applications in Sarawak. Therefore users experience usage in this study defined as those who had used online food delivery applications at least between less than a year and more than 3 years. The researcher believed this level of usage experience would make the users well-positioned to provide their experiences of using this online food delivery applications. As this study referring to user's propensity to use technology or to maintain current level of technology use in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Other study uses customers' stated intentions to predict their usage patterns (Alassafi, 2022). Therefore three questions included in Section A in the questionnaire namely 'Have you ever ordered food through online?', 'How often do you typically order food online?', and 'Online Food Delivery Applications usage experience' has been asked for the purpose of screening questions.

3.4.3 Sample Size

The sample of this study consisted of Sarawakian food delivery application users aged 18 years and above. Since the sampling frame was not available, this study used G*Power to perform the power analysis (Faul, Erdfelder, Lang, & Buchner, 2007; Kang, 2021). Power analysis determines the minimum sample size by taking into account the part

of the model with the largest number of predictors (Hair, Risher, Sarstedt, & Ringle, 2019; Uttley, 2019). For this study, the parameters' values for the minimum sample size determination were set at f2 = 0.15, power = 0.95, Alpha = 0.05, and predictors = 10. The results from G*Power 3.1.9.7 software indicated that this study required a minimum sample size of 166.

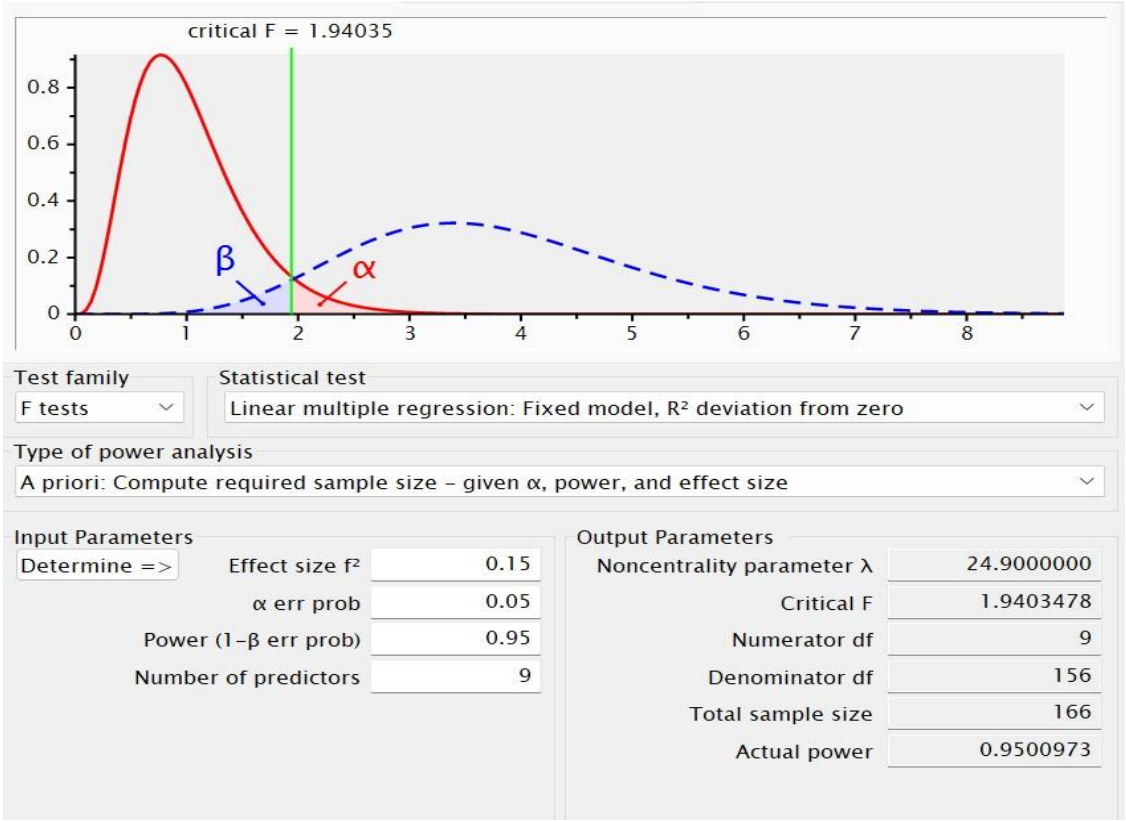


Figure 3.1: Minimum Sampe Size Using G Power

Previous literature suggests that a sample of 30 to 460 cases is acceptable for SEM analysis. The researcher planned to limit the sample to 400 respondents, as a sample larger than 400 respondents would cause Structural Equation Modelling (SEM) to become sensitive, causing any difference to be detected and the goodness-of-fit measures to exhibit poor fit (Awang, Afthanorhan, & Asri, 2015). Therefore, the sample size for this study should be in the range between the minimum of 166 and the maximum of 400 responses.

3.4.4 Sampling Technique

Probability sampling fails to be an adequate method when the population is hard to reach or hidden and researchers have difficulty engaging and accessing these individuals (Berndt, 2020). . In this regard, the researcher cannot create a sampling frame and arrive at consistent statistical analyses due to the the real list of the target population was not accessible. Therefore, non-probability becomes more plausible. The sampling technique used for this study is non-probability sampling. Non-probability sampling techniques were used to draw the sample using non-randomised methods. The method for non-probability sampling involves mostly judgement. There are various methods for non-probability sampling, such as purposive sampling, convenience sampling, snowball sampling, and quota sampling (Bryman & Bell, 2011). Due to the non-availability of a sampling frame, the convenient sampling technique was used for this study. According to Rahi (2017), convenience sampling describes the data collection process from a research population that is effortlessly reachable to the researcher. Convenient sampling is also known as accidental sampling or opportunity sampling. The technique is useful when the target population is defined in terms of a very broad category. With this sampling technique, any member of the target population who is available at the moment is approached and requested to take part in the study; if the person shows consent, the investigation is done (Alvi, 2016). For the present study, the researcher included those participants who were easy or convenient to approach. The convenient sampling technique was selected because it requires less effort, cost, and time as the sample is quick and easy to approach (Naseri & Rahmiati, 2022).

However, it inherently possesses different drawbacks, including being subjected to sampling biases and systematic error, not being able to interpret the p-value meaningfully, not being representative of the total population, not controlling the variability, and not ending

in the generalizability of the results beyond the sample. If researchers carefully conduct the research using a convenience sampling technique and controlling biases and uncertainty, it produces useful data. Convenience sampling can be improved by evaluating and controlling the sample's representativeness, including diversity, and using other data. First, the researchers need to reduce biases when selecting the participants and improve the research usefulness by evaluating and controlling the representativeness of a sample. Second, the researchers also can add diversity to mend convenience samples by obtaining diversification through distributing questionnaires at different times and locations to achieve an appropriate cross-section of the target population. Finally, using more data is the other way to control bias and uncertainty. The researchers could integrate more data by using larger samples (Golzar & Tajik, 2022).

Hence, the participants are consecutively selected in order of apperance according to their convenient accessibility. The sampling process comes to an end when the total amount of participants and/or the time limit are reached. Therefore, the selection of respondents of this study was based on the Foodpanda and GrabFood coverage areas of online food delivery services in Sarawak. It is because Foodpanda and GrabFood presented 70.36% and 63.19% were the popular online food delivery applications among Malaysian online food delivery application users due to their user-friendly features (Tan et al., 2021). Furthermore, GrabFood is available in Kuching, Miri, Bintulu, and Sibu, and Foodpanda is available in Kuching, Petrajaya, Miri, Sibu, Bintulu, dan Samarahan. Thus in this study also focused on online food delivery applications users aged above 18 years old and focusing on those who has experience using the online food delivery applications in Sarawak. Thus, users experience usage in this study defined as those who had used online food delivery applications at least between less than a year and more than 3 years. The researcher believed

this level of usage experience would make the users well-positioned to provide their experiences of using this online food delivery applications. As this study referring to user's propensity to use technology or to maintain current level of technology use in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Other study uses customers' stated intentions to predict their usage patterns (Alassafi, 2022). Therefore three questions included in Section A in the questionnaire namely 'Have you ever ordered food through online?', 'How often do you typically order food online?', and 'Online Food Delivery Applications usage experience' has been asked for the purpose of screening questions. The researcher provided a Google Form link to the potential respondents after contacting them online via messaging applications such as Telegram WhatsApp, and Facebook.

3.4.5 Ethical Consideration in Online Survey

Ethical considerations are one of the significant factors in conducting research whereby protecting the identity and privacy of the participants is imperative, as well as assuring that the testing would not harm those involved in the process (Saunders et al., 2016). In this study, the survey was completely anonymous so that the results could not be traced back to a particular respondent to ensure their anonymity. According to Regmi, Waithaka, Paudyal, Simkhada, & Van Teijlingen, (2016), an online administration of surveys raises unique key ethical questions in several areas, including:

i. Informed consent

In most online survey tools, it is not possible to explain the study or to obtain verbal consent from the participants. Researchers therefore ensure that pertinent information regarding the study, participants' rights, and researcher's contact details is provided on the

first page of the survey. The consent practice needs to be cautiously considered and determined.

ii. Privacy and confidentiality

There have been concerns regarding the ability of online administration tools to ensure participants' privacy and confidentiality.

iii. Right to withdraw or omit items

Study participants should have a right to withdraw from a survey in addition to the choice to opt out of sharing the data already provided on an online questionnaire. Researchers should, therefore, ensure that the opportunity to erase or skip questions or backtrack through the survey is provided in order to maintain an ethically sound research conduct. As a rule, only items relating to the consent form should require a response.

3.5 Research Instrument

Adopting a previously used questionnaire can save both time and resources (Boynton & Greenhalgh, 2004). However, it is possible that there is no easily accessible questionnaire that measures the construct of interest, or that a published questionnaire is not available in the language that the target respondents can comprehend. Consequently, the researcher might have to create a brand new questionnaire or translate an existing one into the language of the people who are going to fill out the questionnaire. It is imperative to determine the construct to be evaluated using the questionnaire, as the domain of interest will decide what aspects of the construct the questionnaire will measure (Tsang et al., 2017). Several methods, including content analysis, research review, critical incident analysis, direct observation, expert judgement, and instructional methods, have been proposed as potential ways to assist the researcher with this process (Crocker & Algina, 2008).

In this study, the conceptual domains of the constructs were mainly adopted from UTAUT 2 model (Venkatesh et al., 2012), consisting of the constructs of performance expectancy, effort expectancy, social influence, facilitating condition, price value, hedonic motivation, habit, intention to use, and usage, along with two additional constructs comprising trust and risk. All the constructs were adapted with relation to Sarawak's usage of online food delivery applications. After creating a pool of relevant constructs and items from the literature review, a total of 11 constructs (performance expectancy, effort expectancy, social influence, facilitating condition, price value, hedonic motivation, habit, trust, risk, intention to use, and usage) and 48 items were selected. Tables 3.1, and 3.2 present the number of items and the sources for the constructs, and the specifications of the original items, respectively.

Table 3.1: Definition of Constructs

Theory/Model	Construct	Sub-construct / Dimension	Definition
Unified Theory of Acceptance and Use Technology 2 (UTAUT2)	Performance expectancy (PE)	nil	The degree to which a person believes that using a new product or technology contributes to better performance (Venkatesh et al., 2003).
	Effort expectancy (EE)	nil	The extent of ease pertaining to the use of a system (Venkatesh et al., 2003).
	Social influence (SF)	nil	The extent to which a person perceives that the people who are important to them think they should use the new product or technology (Venkatesh et al., 2003).

Table 3.1: Continued

Theory/Model	Construct	Sub-construct / Dimension	Definition
Unified Theory of Acceptance and Use Technology 2 (UTAUT2)	Facilitating condition (FC)	nil	The degree to which an individual has faith that the organisation will provide technical support for the system (Venkatesh et al., 2003).
	Hedonic motivation (HM)	nil	The fun or pleasure derived from using a technology (Venkatesh et al., 2012).
	Price value (PV)	nil	The perception of price or cost is determined by the quality of the proposed product or service and the perceived benefits from using the product or service (Venkatesh et al., 2012).
	Habit (HA)	nil	The ability of an individual to automatically conduct behaviour as they learn how to operate a new piece of technology (Limayem et al., 2007).
	Behavioural intention to use (BI)	nil	A person's perceived likelihood of performing a particular behaviour (Venkatesh et al., 2003).
	Usage (UB)	nil	Technology usage frequency (Venkatesh et al., 2003).

Table 3.1: Continued

Theory/Model	Construct	Sub-construct / Dimension	Definition
Trust	Trust (PT)	nil	Trust in the context of web retailing is "the subjective probability by behavioural intention to order food using e-commerce which consumers expect that a web retailer will perform a given transaction in accordance with their confident expectations" (Pavlou, 2002).
Risk	Risk (PR)	nil	Understanding and assessing the potential negative outcomes of a decision-making process (Dowling & Staelin, 1994).

Table 3.2: Specification of Original Items

Variable	Construct/Item from the Model	Adapted from:
Performance Expectancy (PE)	The use of Online Food Delivery system is an efficient way to order my food.	(Gunden et al., 2020a; Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
	The use of Online Food Delivery system makes my life easier.	
	The use of Online Food Delivery system gives me more chance to complete important tasks.	
	The Online Food Delivery system helps me to complete my tasks quickly.	
	The use of Online Food Delivery system increases my productivity.	

Table 3.2: Continued

Variable	Construct/Item from the Model	Adapted from:
Performance Expectancy (PE)	Overall, the use of Online Delivery System is a useful way to order food.	(Gunden et al., 2020a; Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
	I prefer to use the Online Food Delivery system when it is available.	
	Most of my food orders are made through the Online Food Delivery system.	
	I tend to use the Online Food Delivery system at any time that it can be used.	
Effort Expectancy (EE)	It is easy for me to learn how to use the Online Food Delivery system.	(Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
	I found that it is easy to make the system do the things that I want done.	
	My interaction with the Online Food Delivery system is clear and easy to understand.	
	I found the system to be flexible to interact with.	
	It is easy for me to become skilled in using the Online Food Delivery system.	
	I found the system easy to use.	

Table 3.2: Continued

Variable	Construct/Item from the Model	Adapted from:
Social Influence (SF)	People who are important to me (e.g., family members, close friends, and colleagues) recommend I use food delivery apps.	(Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
	People who are important to me think food delivery apps are beneficial.	
	People who are important to me think it is a good idea to use food delivery apps.	
	People who are important to me support me to use food delivery apps.	
Facilitating Condition (FC)	I have the required resources to use the Online Food Delivery system.	(Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
	I have the required knowledge to use the Online Food Delivery system.	
	The Online Food Delivery system is compatible with other technologies that I use.	
	I can get help from other people when I face difficulties in using the Online Food Delivery system.	
	Based on sources, opportunity, and required knowledge to use this system, it is easy and comfortable for me to use this system.	

Table 3.2: Continued

Variable	Construct/Item from the Model	Adapted from:
Hedonic Motivation (HM)	Use of the Online Food Delivery system gives joy.	(Palau-Saumell et al., 2019; Venkatesh et al., 2012)
	Use of the Online Food Delivery system is fun.	
	Use of the Online Food Delivery system is entertaining.	
Price Value (PV)	I can save money by using food delivery apps for purchasing foods by comparing the prices offered at different online stores.	(S. W. Lee et al., 2019a; Palau-Saumell et al., 2019; Venkatesh et al., 2012).
	I like to search for cheap deals at different online stores when I purchase foods through food delivery apps.	
	I believe online food delivery apps offer better value for my money.	
Habit (HA)	Use of the Online Food Delivery system has already become my habit.	(Gunden et al., 2020a; Limayem et al., 2007; Palau-Saumell et al., 2019; Venkatesh et al., 2012)
	I am addicted to the use of Online Food Delivery System.	
	I must use the Online Food Delivery system.	
	Use of the Online Food Delivery system has become customary for me.	

Table 3.2: Continued

Variable	Construct/Item from the Model	Adapted from:
Trust (PT)	The Online Food Delivery system that I use now fulfils its promises and commitments.	(Hamid et al., 2022)
	The Online Food Delivery System that I use now can be depended on.	
	The Online Food Delivery System that I use now cares about its customers.	
	The Online Food Delivery System that I use now is capable of performing its job.	
	The Online Food Delivery System that I use now can be trusted.	
Behavioural Intention to Use (BI)	I intend to continue using the Online Food Delivery system in the future.	(Venkatesh et al., 2003) (Gunden et al., 2020a) (Palau-Saumell et al., 2019)
	I can feel that I will be using the Online Food Delivery system in the future.	
	I plan to use the Online Food Delivery system in the future.	
	I expect that my usage of the Online Food Delivery system will continue in the future.	
Usage (UB)	I consider myself a regular user of the Online Food Delivery system.	(Venkatesh et al., 2003)
	I prefer to use the Online Food Delivery system when it is available.	
	Most of my food orders are made through the Online Food Delivery system.	
	I tend to use the Online Food Delivery system at any time that it can be used.	

Table 3.3: Summary of Items to Measure Each Construct

Construct	No. of items	Source
Performance expectancy (PE)	6	(Gunden et al., 2020a; Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
Effort expectancy (EE)	6	(Palau-Saumell et al., 2019; Venkatesh et al., 2003, 2012).
Social influence (SF)	4	
Facilitating condition (FC)	5	
Hedonic motivation (HM)	3	(Palau-Saumell et al., 2019; Venkatesh et al., 2012)
Price value (PV)	3	(Venkatesh et al., 2012) (Palau et al. 2019) (S. W. Lee et al., 2019a)
Habit (HA)	4	(Gunden et al., 2020a; Limayem et al., 2007; Palau-Saumell et al., 2019; Venkatesh et al., 2012)
Behavioural intention to use (BI)	4	(Venkatesh et al., 2003) (Gunden et al., 2020a) (Palau-Saumell et al., 2019)
Usage (UB)	4	(Venkatesh et al., 2003)
Trust (PT)	5	(Hamid et al., 2022)
Risk (PR)	4	(Yen, 2022)

The questionnaire items were developed to meet the objectives and to answer the research questions. In this study, the researcher used a modified questionnaire by adopting and adapting from the previous literature. The questionnaire was divided into six sections:

Section A (Online Food Delivery Usage characteristics), Section B (Users' Technology Acceptance Factors), Section C (Trust), Section D (Risk), Section E (Behavioural Intention to Use), Section F (Usage), and Section G (Demographic). Table 3.4 presents the questionnaire item development by sections.

Table 3.4: Questionnaire Item Development by Sections and Response Anchor

Section	Construct	Response Anchors	Scale of Measurement
B	Performance expectancy (PE)	Level of agreement	10 Likert scale
	Effort expectancy (EE)		
	Social influence (SF)		
	Facilitating condition (FC)		
	Hedonic motivation (HM)		
	Price value (PV)		
	Habit (HA)		
E	Behavioural intention to use (BI)		
F	Usage (UB)		
D	Trust (PT)	Level of my beliefs	
C	Risk (PR)	Level of knowledge of action	

3.5.1 Translation

As soon as the construct of interest has been identified, it is critical to carry out a literature study to establish whether or not a previously validated questionnaire is already available. A questionnaire or scale that has been prepared to be used on the targeted respondents is said to be validated when it is given out in the form of a validated questionnaire. The validation methods need to accomplish with the assistance of a representative sample, displaying an appropriate level of reliability and validity. If no existing survey is available, or none that is considered to be adequate, it is appropriate to design a new questionnaire. In the event there is a questionnaire, but it is only available in a different language, the questionnaire needs to be translated and the translated questionnaire needs to be validated (Tsang et al., 2017).

The following discussion provides a summary of the principles that should be adhered to when translating a questionnaire into a new language. These principles include forward translation, back translation, and the involvement of an expert committee, as follows:

1. Forward Translation

As suggested by Brislin (1970), using only one forward translator is the minimum requirement for forward translation. Therefore, the initial translation (forward translation) of the instrument from English to Bahasa Melayu (BM) or Malay was carried out by two translators who were native Malay speakers and who had been identified as competent users of the English language. The translators were selected based on their academic and professional qualifications.

Then, a comparison between the two versions of the translated questionnaire was carried out to produce a common version of the Malay questionnaire. The comparison was carried out by a linguistic expert in the Malay language from the Faculty of Language and Communication University Malaysia Sarawak (UNIMAS) who was selected due to her proficiency in English and Malay languages. After that, another qualified translator translated the questionnaire from Malay to English.

2. Backward Translation

The Malay version of the questionnaire was translated back into English by one translator who was not part of the initial translation team. The back translator was also selected based on academic and professional qualifications. The back translator did not see the original instrument to ensure that that she was not influenced by it. Then, a comparison of the back translated questionnaire to the original questionnaire was carried out to identify areas where the meaning was unclear or slightly incorrect. The comparison was carried out by a freelance linguistic expert in the English language who was selected due to her proficiency in English and Malay languages.

3.5.2 Expert Committee Review

An expert committee review is usually done to evaluate a translated instrument based on an adaptation and evaluation checklist. When developing questionnaire items for a survey, an expert review is used to determine the validity of the items whereas each expert was asked to respond by indicating each item as a perfect match, moderate match, or poor match (Muda et al., 2020). For the selection of the expert reviews, it is important to select individuals who are knowledgeable in the subject matter, either because of their academic background, work experience, or recognition in the community, and with respect to

experience, it is recommended that at least two of the judges be measurement and evaluation experts (Fernández-Gómez et al., 2020).

In this study, five experts were selected based on published criteria while considering a procedure that ensures the assertiveness of their assessments. The criteria were based on the experts' experience in issuing judgements and decision-making, their academic and scientific reputation, their willingness and motivation to collaborate, their objectivity and compliance with what has been established. As well as their ability to perform the question classification techniques required to validate the content. During the expert panel review meeting, members evaluated the instrument and provided suggestions and revisions, with the researcher acting as a facilitator. The panel compared the original items in English and the back-translated version to validate the accuracy of the translation in the Malay version. This was to ensure that there were no mistranslations, missing texts, and other translation errors. Each panel member was given a checklist. They were all given a week to complete the checklist individually. They were also invited to provide an overall comment for each section. The instruments were reviewed by five experts review. Afterwards, the experts' responses to the questions were analysed. The instruments were rewritten in response to the comments and suggestions made by the experts. Based on the expert committee review process, several items needed refining to the wording to avoid misunderstanding during the actual study. The details about the five panel members are provided in Table 3.5.

Table 3.5: List of Experts for Instrument Validation

No.	Name	Field of Expertise	Work Experience (Years)
1	Prof. Dato' Dr. Shazali Abu Mansor	Economics and Business/Research Methodology	More than 25 years
2	Prof. Dr. Shahren Ahmad Zaidi Adruce	Knowledge Management System/Research Methodology	More than 25 years
3	Prof. Dr. Philip Nuli Anding	Research Methodology	More than 25 years
4	Dr. Donald Stephen	System Usability Scale/Psychometrics	More than 15 years
5	Mrs. Zeckqualine Melai	Malay Language	More than 15 years

3.5.3 Pre-Testing

Pre-testing is the stage in the development of a questionnaire that determines the potential effectiveness of the questionnaire. The pre-test is conducted prior to the final distribution of the questionnaire to the target population. Questionnaire pre-testing enables the researcher to identify inappropriate terms in question wording, an inappropriate order, errors in the questionnaire pertaining to layout and instructions, as well as problems caused by the respondents' inability or refusal to answer certain questions (Babosnea & Voicu, n.d.). When pre-testing the survey, the researcher pays close attention to the manner in which individuals answer the questions. This is due to the fact that there are several distinct processes the respondents may be going through when they are responding to the questions. In the end, the researcher wants to ensure that the respondents understand the questions and answer them in the same way that the research intended them to be answered.

This study employed declared pre-testing, in which the respondents were informed before completing the questionnaire that they would be asked to complete more than just the questions. Declared pre-test and undeclared pre-test are two types of pre-tests that can be used for a survey questionnaire (Babonea & Voicu, 2011). As a result of increasing awareness of the disadvantages of conventional pre-testing, which entails performing a small-scale survey in which the interviewer discovers questionnaire-related issues, the experts who advocated conventional pre-testing agreed that getting a set of 12 to 25 questionnaires completed is sufficient for detecting questionnaire errors (Babonea & Voicu, 2011). For this study, 12 respondents were selected for pre-testing. Cognitive interviews were also held as part of the pre-testing process. When selecting the sample for a cognitive interview, it is important to consider the diversity of the participants (Buschle, Reiter, & Bethmann, 2022). Therefore, the respondents were chosen based on their ethnicity to assess their comprehension of the questionnaires in English and Malay. A cognitive interview is defined as the delivery of draft survey questions while simultaneously gathering extra verbal information regarding the survey findings; it is used to analyse the overall quality of the responses or to determine whether the question generates the information intended by the researcher (Buschle et al., 2022). The cognitive interviews were conducted via face to face and the questionnaire was distributed via Google Form, a survey administration software. Before the questionnaire was distributed, this approach was followed to discover and eliminate any misunderstandings or inaccurate assumptions regarding the questionnaire. This pre-testing was designed to find out how the intended respondents might interpret the questions they were asked. The sessions were held separately for each respondent depending on the day and time that was agreed upon by the respondent. A link to an identical survey was shared with each respondent at some point throughout their session. When answering

the questionnaire, the respondents were asked to take note of any possible input they had. The interviews focused on explaining what they should think about, such as the spelling, language, and rationale behind the statements and instructions in the questionnaire.

Face to face meeting were conducted with the 12 selected respondents based on their availability. Therefore, three different sessions were conducted with four participants per meeting based on the day and time agreed upon by the respondents. The meeting were held in the first week of August 2022. After the instrument had been adequately and thoroughly evaluated, a few general questions concerning the questionnaire were asked before the pre-test meeting was concluded. These questions included:

- Was the questionnaire comprehensive?
- Did the questionnaire adequately cover the topic (or how adequately was the topic covered)?
- Are there any questions you expected us to ask but that we did not ask?
- Are there any questions you feel may be too sensitive or may affect our response rate that we should consider deleting? Was the questionnaire too long, too short, or about right?

The participants offered helpful input on the format, scales, unclear questions, and wording. The questions that caused confusion were modified in order to address these issues. Words with confusing meanings were identified, reviewed, and replaced with words having comparable but clearer meanings. Based on the discussions with the respondents, it was predicted that the time required to complete the questionnaire would be between 10 and 15 minutes in total. Apart from that, the majority of the respondents stated that the English and translated Malay items were appropriate and easily understood.

3.6 Pilot Study

A pilot study is conducted to ensure that the questionnaire has adequate scientific credibility. It is a preliminary version of a research instrument prior to conducting the actual study or experiment (Hulland, Baumgartner, & Smith, 2018). A number of authors have highlighted the importance of conducting a pilot study. For example, a pilot study helps to detect any possible flaws at the early stage by identifying potential problems and areas in the instrument that may require adjustments, as well as in terms of the added value and credibility for the research (Dikko, 2016). The pilot study is an essential step for testing the questionnaire before using it for data collection. Researchers can clarify the statements in the questionnaire and improve the content flow by conducting a pilot study; ultimately, a pilot study allows researchers to increase the reliability and validity of the questions (Saunders et al., 2019). A pilot study can be performed by identifying a small group of participants that resemble the full study sample. The sample size for a pilot study is determined by several rules. Memon et al. (2018) proposed sample consisting of 25 to 100 individuals for pilot testing. However, for the purpose of performing Exploratory Factor Analysis (EFA), a minimum of 100 responses must be collected.

Therefore, for the present study, 100 respondents were selected from i-CATS University College in Kuching, Sarawak for the pilot study. The pilot study was conducted by posting a Google Form questionnaire link using the WhatsApp application. The researcher believes that the pilot respondents have similar demographic characteristics in the online food delivery context and most importantly, have experienced ordering food and beverages through online food delivery.

Exploratory Factor Analysis (EFA)

For the pilot study, questionnaires that were delivered to a total of 100 randomly selected respondents at i-CATS University College located in Kuching, Sarawak, were valid for analysis. EFA was performed on the collected data to determine and quantify the dimensionality of the items used to measure the constructs. Many researchers, including Awang (2010, 2012), Hoque et al. (2017, 2018), and Yahaya et al. (2018), have emphasised the importance of performing EFA for every construct in order to determine whether the items will create different dimensions from previous research. If items are adapted from different fields to a new field of study, the dimensionality of the items may shift as a result of this adaptation. Furthermore, differences in the cultural background and socioeconomic status of the population as well as the lapse in time (duration) between the current study and earlier studies may also play a role in altering the dimensionality. In other words, it was anticipated that the current study would result in the development of new facets, particularly given the fact that the current study was carried out in an unfamiliar setting (Awang, 2010, 2012; Hoque et al., 2018).

Based on the EFA results, The Kaiser-Meyer-Olkin (KMO) value for measuring the adequacy of sampling must exceed the required value of .6, and Bartletts' test of sphericity is significant if the *p*-value <.05 (Awang, SH., & Zainudin, 2018; Sobihah & Awang, 2020). Therefore based on the findings, the significance level of Bartlett's test of *p*-value <.05 and the KMO value is exceed the required value of .6 showed that the data was adequate for the data reduction procedure. The total variance explained is acceptable if it exceeds the minimum requirement of 60% (Awang, 2010, 2012; Hoque et al., 2017, 2018; Yahaya et al., 2018; Bahkia et al., 2019; Sobihah & Awang, 2020). Based on the findings, all components of each constructs were greater than 1.0 emerged from the eigenvalue computation, and the total variance explained measuring all constructs was exceeded the minimum requirement

of 60%. As well as the relation and factor loading between the component and its associated items for all constructs were retained due to high factor loading (>0.6).

3.6.1 Reliability Test

After the validity measurement is done, the measurement of the value of reliability has to be done on the items used in the study. Therefore, Cronbach's alpha statistics were used in this study to measure the internal consistency reliability of the data. Cronbach's alpha is a statistical test that is used to measure the reliability of internal consistency (Bonett & Wright, 2015). A Cronbach's alpha value of .60 is considered to be average reliability, and a coefficient of .70 or above indicates that the instrument has better reliability (Awang, Hui, & Zainudin, 2018; Awang, 2015b). Table 3.6 presents the Cronbach's Alpha result of each dimensions.

Table 3.6: The Cronbach's Alpha Result of Each Dimensions

Construct	No. of Items	Cronbach's Alpha
Performance expectancy	6	.905
Effort expectancy	6	.936
Social influence	4	.888
Facilitating condition	5	.940
Price value	3	.787
Hedonic motivation	3	.943
Habit	4	.939
Trust	5	.909
Risk	5	.854
Behavioral intention to use	4	.962
Usage	4	.893

3.7 Data Collection Method

In this study, an online questionnaire was used to collect the required data. Questions regarding the variables were asked. Online questionnaires offer an alternative to traditional paper-based methods, and research suggests that the response rates are higher (Siva, Nayak,

& Narayan, n.d.). Social media platforms are free and widely accessible, and they are designed to connect internet users worldwide. The internet opens up new avenues for research for social and behavioural sciences (Bhutta, 2012). Furthermore, distributing the questionnaire via electronic means allows it to be shared quickly on social media platforms, including the WhatsApp application (Doherty, Odeyemi, Adeola, Amolegbe, & Ajagbe, 2020). Online questionnaires are becoming increasingly popular among social science researchers as a result of the COVID-19 pandemic. Consequently, when events prevent in-person methods from being used, online questionnaires may provide a viable alternative method for carrying out the research plans (Wardropper, Dayer, Goebel, & Martin, 2021).

3.8 Data Collection Procedure

Questionnaires are considered to be one of the most suitable data collection tools for collecting data from large samples (Saunders et al., 2019). The online questionnaire may provide a viable alternative method for carrying out a research plan (Siva et al., n.d.). Besides, it offers a higher response rate (Wu, Zhao, & Fils-Aime, 2022). In this study, the selection of respondents was based on the coverage areas of online food delivery services by Foodpanda and GrabFood. This was because Foodpanda (70.36%) and GrabFood (63.19%) were the popular online food delivery applications among Malaysian online food delivery users due to the user-friendliness of their systems (Tan et al., 2021). Besides, FoodPanda and GrabFood was available in Kuching (Petrajaya), Samarahan, Miri, Bintulu, and Sibu. Therefore, this study focused on online food delivery applications users aged above 18 years old and focusing on those who has experience using the online food delivery applications in Sarawak. Therefore users experience usage in this study defined as those who had used online food delivery applications at least between less than a year and more than 3 years. The researcher believed this level of usage experience would make the users well-positioned

to provide their experiences of using this online food delivery applications. As this study referring to user's propensity to use technology or to maintain current level of technology use in the perspective of diferent factors or determinants that may impact technology use (Tang et al., 2022). Other study uses customers' stated intentions to predict their usage patterns (Alassafi, 2022). Therefore three questions included in Section A in the questionnaire namely 'Have you ever ordered food through online?', 'How often do you typically order food online?', and 'Online Food Delivery Applications usage experience' has been asked for the purpose of screening questions.

Data were collected over a period of three months from Sarawak's urban and sub-urban population. The urban and sub-urban population was selected since they had better internet connection and the online food delivery applications were available only in urban and selected sub-urban areas in Sarawak. During the data collection period, a Google Form link was sent to potential respondents after they were contacted online via messaging applications such as WhatsApp, Telegram and Facebook. The online questionnaire included important information, such as the purpose of the study, a guarantee that the respondent's data would be kept confidential, and an option for the respondent to decline. The respondents were initially asked if they were users of online food delivery services. Those who replied in the affirmative were then invited to participate in the study. Participation was voluntary. The participants were informed that their identities would be kept anonymous and that the results would be used only for academic purposes. Pre-notifying respondents, and multiple follow-up contacts were used to enhance the response rate (Menon & Muraleedharan, 2020; Sammut, Griscti, & Norman, 2021).

In this study, the first step in data collection was creating an online questionnaire via Google Form. Google Form is an online survey tool that enables researchers to collect data from respondents through a customised online survey. The data was then collected and linked directly to a database that was filled with the survey responses. This tool is made available by Google and may be used by anyone to generate web-based questionnaires. Apart from that, it can be accessed for free on the internet and is accessible through any device with an internet connection. Since the survey was carried out with the assistance of Google Forms, all the questions were marked with "Required". In Google Form, marking a question with "Required" means that for the respondents to be able to complete the survey, they need to answer all the questions stated in the form. This was done to prevent the issue of missing values (Kang, 2013). After finalising the Google Form, a short uniform resource locator (URL) for the online questionnaire was generated. The first step entailed identifying the social media platforms that would best serve the target respondents. Facebook was chosen due to its ranking as the number one social media platform used in Malaysia (MCMC, 2020). In this study have selected a group that had more than 90,000 members. The Doctorate Support Group, Bazaar Rakyat Online Sarawakku Sayang (BROSS) and Sarawak Delivery was chosen. Next, to increase the number of responses, the URL of the questionnaire was shared on the researcher's personal Facebook account, and the post was set as visible to the public by reposting and distributing the postings with the intention of boosting the number of people taking part in the survey. Finally, the posting was worded such that it would encourage the respondents to share the questionnaire's URL, "kindly share this questionnaire with your family and friend who might be interested to take part in this study. Thank you in advance for your participation and assistance". Additionally, this study also used instant messaging platforms such as WhatsApp and Telegram by applying the same method,

whereas the questionnaire's URL was shared on the WhatsApp and Telegram personally and groups. Before posting, permission was requested from the group admin of each group. The questionnaire's URL was shared only after obtaining their approval. Furthermore, the questionnaire's URL was also sent to personal respondents. The respondents were encouraged to not only respond to the survey but also share it with their family and friends who might meet the criteria of a targeted respondent. The online questionnaire was shared with respondents from four region in Sarawak namely Kuching, Sibu, Miri and Bintulu. In this cross-sectional study, the link to the online survey was available for response from December 2022 to March 2023. The respondents who agreed to take part in the study were required to complete a self-administered questionnaire. They were notified that their participation in the study was entirely voluntary and that they had the option to withdraw their participation at any time.

3.9 Procedure for Data Analysis

The analysis of data is a method that involves inspecting, tabulating, categorising, or otherwise recombining information in various ways in order to answer the initial propositions of a study. Ali and Bhaskar (2016) mentioned that the process of collecting raw data and labelling it in preparation for statistical data analysis affects both the quality of the findings and the level of comprehension of the findings and the researchers ought to agree on the process of data analysis and evaluation before proceeding with the process of data collection. This would help prevent the possibility of collecting incomplete or inaccurate data during the data collection process. This study adopted structural equation modelling (SEM) for data analysis for several reasons. First, SEM is well suited for the goal of hypothesis testing since it examines a number of correlations between dependent and independent variables all at once (Hair et al., 2019). Second, calculating and extracting the

measurement error is needed to achieve perfect reliability in a study. Thus, SEM is able to simultaneously address a set of interrelated research questions through both measurement and structural models. This study applied covariance-based structural equation modelling (CB-SEM), a SEM approach that allows researchers to examine relationships concurrently. It is a multivariate statistical analysis method that can be used to evaluate complex theoretical models and examine the relationships between multiple latent variables (Zainuddin Awang et al., 2018; Dash & Paul, 2021; Hair et al., 2019). In this study, SPSS version 25 and Analysis of Moment Structure (AMOS) version 25 software were used to analyse the data, and the SEM technique and multigroup analysis were employed to validate the theoretical model and to test the hypotheses. AMOS has several features that make SEM analysis accessible and flexible, including the ability to specify model constraints, estimate model parameters, test for model fit, and generate various output files, including path diagrams, model fit statistics, and standardised coefficients (Zainuddin Awang et al., 2018). There are two steps of SEM-AMOS assessment. The first step is the measurement model assessment or CFA, and the second step is structural model assessment via SEM. Measurement model assessment or commonly known as CFA was done in this study by examining every construct in the model. Two criteria were used for assessment during the CFA process, namely factor loading and goodness of fit. Meanwhile, the structural model assessment involved assessing *R*-squared and path coefficients.

3.9.1 Measurement Model Assessment

CFA is a type of SEM that is often used to assess the construct validity of a set of observed variables. CFA in SEM using AMOS involves specifying a model that hypothesises how the observed variables are related to the underlying latent factors that they are intended to measure. The first step in CFA is specifying the measurement model, which

involves specifying the factor structure and the factor loading for each observed variable. The factor structure specifies how the observed variables are related to the latent factors, while the factor loading represents the strength of the relationship between each observed variable and its corresponding latent factor.

After specifying the measurement model, the researcher can assess the goodness-of-fit of the model using various fit indices, such as chi-square test, root mean square error of approximation (RMSEA), and comparative fit index (CFI). The goal of CFA is to achieve a good fit between observed data and the hypothesised model, indicating that the model is a good representation of the data. Once the measurement model has been validated, the researcher can move on to testing the structural model, which involves specifying how the latent factors are related to each other and to any other variables of interest. The researcher can then use the structural model to test various hypotheses about the relationships among the variables in the model. Overall, CFA in SEM using AMOS is a powerful tool for evaluating the construct validity of a set of observed variables and can help researchers better understand the underlying structure of their data.

3.9.2 Composite Reliability

This study used SEM, which prioritises items according to their individual reliability. Thus, assessing composite reliability is to examine the internal consistency and reliability of a construct, comprising of average variance extracted (AVE) evaluates convergent validity. Composite reliability considers the different outer loadings of the items in a construct. The range of composite reliability values is between 0 and 1. The higher the composite reliability, the higher the level of reliability. Composite reliability values between .60 and .70 are

acceptable, but values of less than .60 show a lack of internal consistency reliability (Hair et al., 2014).

1. Convergent Validity

Convergent validity refers to how an item correlates positively with alternative items of the same construct. The items of a specific construct should converge, which means they share a high proportion of variance (Hair et al., 2014). Their study suggests assessing the outer loadings of items, together with AVE, to evaluate convergent validity. If the outer loadings of the items of a specific construct are high, it means that the items have much in common which the construct captured. This situation is called indicator reliability. All the outer loadings of all items should be statistically significant and should be at least .708 (Hair et al., 2014). If the outer loading of an item is less than .708, it is suggested to examine how removing the item will affect composite reliability. Hair et al. (2014) suggest removing items with outer loadings between .40 and .70 if deleting the items leads to an increase in composite reliability and AVE. Items with outer loadings of less than .40 must be eliminated (Hair et al., 2011). AVE is also used to establish convergent validity (Hair et al., 2014). AVE is defined as the mean value of the squared loadings of the items associated with a specific construct. It measures the sum of the squared loadings divided by the number of items in the construct.

The minimum acceptable value of AVE is .50 because an AVE of .50 or higher means that the construct explains more than half of the variance of its items. An AVE that is less than .50 means that, on average, more errors remain in the items than the variance explained by the construct (Hair et al., 2014). The rules for outer loading testing are summarised as follows. First, if the outer loading is less than .40, delete the item. Second, if

the outer loading is more than .40 but less than .70, analyse the effect of deleting the item on AVE and composite reliability. If deletion increases the AVE and composite reliability above the threshold, delete the item. However, if item deletion does not increase the AVE and composite reliability above the threshold, retain the item. Third, if the outer loading is greater than .70, retain the item.

2. Discriminant Validity

The concept of discriminant validity is applied to quantify the extent to which one construct is highly different from other constructs (Hair et al., 2014). The square root of each construct's AVE needs to be higher than its correlation with every other construct within the framework if the Fornell-Larcker criterion is to be used to determine whether or not discriminant validity has been achieved (Fornell & Larcker, 1981).

3.9.3 Structural Model Assessment

Reporting the indices from each of the goodness index categories depends on the literature that is being referred. As a rule, Hair, Black, Babin, & Anderson, (2014) maintained that at least one fit index should be selected and reported from each category. The goodness-of-fit-index (GFI), RMSEA, normed chi-square ($\varkappa 2$)/*df*, and CFI are the commonly reported indices in SEM literature (Awang, 2015b; Awang et al., 2018). As much as possible, this study used each of the indices as an essential requirement for the SEM model to be accepted and further analysed empirically (Kline, 2011). The information on the category of model fit, the acceptance level, and some important comments is provided in Table 3.7. In this study, five indices were used, namely chisq/*df*, RMSEA, CFI, incremental fit index (IFI), and Tucker-Lewis index (TLI).

Table 3.7: Indices Category by Awang et al. (2018)

Name of Category	Name of Index	Level of Acceptance & Remarks
Absolute Fit	Chi-Square	P-value > 0.05 [the value of p depends on the sample size; this index is not used if the sample size of the study exceeds 200 (Hair et al., 2014).
	RMSEA	RMSEA < 1.0 still acceptable (the best value is < 0.08)
	GFI	GFI > 0.90 (GFI > 0.85 is still acceptable if the model is complex)
Incremental Fit	AGFI	AGFI > 0.90 (AGFI > 0.85 is still acceptable if the model is complex)
	CFI	(CFI > 0.85 is still acceptable if the model is complex)
	TLI	(TLI > 0.85 is still acceptable if the model is complex)
	IFI	(IFI > 0.90 or >0.85 is still acceptable if the model is complex)
	NFI	(NFI > 0.90 [NFI > 0.85 is still acceptable if the model is complex)
Parsimonious Fit	Chisq/df	Chisq/df < 5.0 (Chisq/df < 3.0 is the ideal measure)

Table 3.8: Criteria of Measurement Model Assessment by Awang (2015)

Criteria	Minimum Threshold	Citation
Factor Loading	>0.6	(Hair et al., 2014)
	>0.4 (accepteble if AVE >0.05)	(Awang et al., 2018)
Modification Indices	>15 (Not desirable)	
Fitness Indices		
RMSEA	RMSEA < 1.0 still acceptable (the best value is < 0.08)	(Awang, 2015b; Awang et al., 2018)
Chisquare/df	Chisq/df < 5.0 (Chisq/df < 3.0 is the ideal measure)	
CFI	(CFI > 0.85 is still acceptable if the model is complex)	
IFI	(IFI > 0.90 or >0.85 is still acceptable if the model is complex)	
TLI	(TLI > 0.85 is still acceptable if the model is complex)	

3.9.4 Summarize of Data Analysis

Path analysis is the ideal approach for testing a hypothesis. In contrast to multiple regression, path analysis goes beyond regression by allowing the analysis of more complex models. The strength of path analysis as a methodology is that it enables researchers to

examine both direct and indirect effects concurrently across various independent and dependent variables. Path analysis enables the researcher to visualise a collection of hypothesised relationships that can be directly transformed into the necessary equations for analysis (Stage, Carter, & Nora, 2004). In the present study, path analysis was used to examine ten hypotheses to ascertain whether the independent variables have direct or indirect effects on a set of related variables. Furthermore, Path analysis was used to test the direct relationship between the technology acceptance factors (performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, habit, price value, trust and risk) with behavioural intention to use, and finally the relationship between behavioural intention to use and usage.

In addition, a mediating mechanism is defined by the presence of a third variable that acts as an intermediary in the relationship between two variables, namely the independent and dependent variables. To better understand this concept, direct and indirect impacts need to be examined (Joe F. Hair et al., 2015). As it is the result of two paths that link the variable X (independent variable) to the variable M (mediating variable), shown as path (a), and the variable M (mediating variable) to the variable Y (dependent variable), shown as path (b), the indirect effect is represented as path ab, and when the indirect effect ab is greater than or less than zero, it can be said that some type of mediation exists (Zainuddin Awang et al., 2018). Finally in the moderating effects, before introducing a moderator into the model, the effects of independent variable X on its dependent variable Y must exist and significant. Thus, when a moderator M enters the model, the causal effects would change due to some "interaction effect" between independent variable X and moderator variable M just entered (Zainuddin Awang et al., 2018). Table 3.5 shows the statistical analysis methods used for the main hypotheses of this study.

Table 3.9: Analysis Methods for the Hypotheses

Research objectives	Hypothesis	Statistical Analysis
1 and 2	H1	Path analysis in SEM
	H2	
	H3	
	H4	
	H5	
	H6	
	H7	
	H8	
	H9	
	H10	
Research objectives	**Hypothesis**	**Statistical Analysis**
3	H11a	Path analysis in SEM and bootstrapping
	H11b	
	H11c	
	H11d	
	H11e	
	H11f	
	H11g	
	H11h	
	H11i	
4	H12a	Moderator Analysis
	H12b	
	H12c	

3.10 Chapter Summary

This chapter highlighted the whole process and procedure used in this study. The chapter began with selected the positivism approach, as it suitably complements the objectives of this study. Positivism includes a priori assumptions in the form of hypotheses

that are established for statistical analysis to facilitate the model validation (Saunders et al., 2019). Therefore, a causal effect research design was suitable for achieving the study's objectives and answering the research questions. Causal research is most appropriate when the research objectives include the need to understand the reasons why certain phenomena happen as they do (Saunders et al., 2019). The researcher chose the survey method as the research strategy for this study. A survey is one of the most popular research methods, and it can be utilised in causal, exploratory, and descriptive research to gather data about individuals, situations, or events (Burn, Veeck, & Bush, 2017). This study selected cross-sectional investigation, in which the data is normally gathered at a certain point, maybe over several days or weeks or months to answer an exploration (Sekaran & Bougie, 2016). The research participants were selected based on the variables of interest in the research framework (Cherry, 2019). Due to the non-availability of a sampling frame, the convenient sampling technique was used for this study. Convenient sampling is also known as accidental sampling or opportunity sampling. The technique is useful when the target population is defined in terms of a very broad category. With this sampling technique, any member of the target population who is available at the moment is approached and requested to take part in the study; if the person shows consent, the investigation is done (Alvi, 2016). In this study, the selection of respondents was based on the coverage areas of online food delivery services by Foodpanda and GrabFood. This was because Foodpanda (70.36%) and GrabFood (63.19%) were the popular online food delivery applications among Malaysian online food delivery users due to the user-friendliness of their systems (Tan et al., 2021). A Google Form link was sent to potential respondents after they were contacted online via messaging applications such as WhatsApp, Telegram and Facebook. This study applied covariance-based structural equation modelling (CB-SEM), a SEM approach that allows researchers to

examine relationships concurrently. It is a multivariate statistical analysis method that can be used to evaluate complex theoretical models and examine the relationships between multiple latent variables (Zainuddin Awang et al., 2018; Dash & Paul, 2021; Joseph F. Hair et al., 2019). In this study, SPSS version 25 and Analysis of Moment Structure (AMOS) version 25 software were used to analyse the data, and the SEM technique and multigroup analysis were employed to validate the theoretical model and to test the hypotheses. AMOS has several features that make SEM analysis accessible and flexible, including the ability to specify model constraints, estimate model parameters, test for model fit, and generate various output files, including path diagrams, model fit statistics, and standardised coefficients (Zainuddin Awang et al., 2018).

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

This chapter presents the findings of the study. The data collected by the researcher was analysed according to the objectives developed in the first chapter. Preliminary data analysis was done by assessing the missing data, univariate and o outliers, non-response bias and common method bias, normality, linearity and homodecasity. Then, the second stage of analysis involved descriptive analysis comprising of frequency and percentage, mean and standard deviation. Finally, SEM analysis was conducted for CFA, realibility, validity, direct effect, mediator and moderator analysis.

4.2 Missing Data

In statistics, missing data refers to information that is not present or not recorded for one or more variables in a dataset. This phenomenon occurs due to various reasons, such as an individual's refusal to answer a survey question or errors during data collection (Kang, 2013). The presence of missing data can pose a challenge because it can affect the accuracy and validity of statistical analyses. For instance, if a variable has a significant amount of missing data, it may be challenging to draw meaningful conclusions about the relationships between that variable and other variables in the dataset. To address this issue, various techniques can be used in statistical analysis, including imputation methods that involve filling in missing values using statistical techniques or excluding cases with missing data from the analysis. The selection of a particular method depends on the amount and pattern of missing data, as well as the research question being investigated. In this study's data, no missing information was detected.

Table 4.1: Missing Data

Construct	N of Item	% of missing
Performance expectancy	6	0
Effort expectancy	6	0
Social influence	4	0
Facilitating condition	5	0
Price value	3	0
Hedonic motivation	4	0
Habit	4	0
Trust	5	0
Risk	5	0
Intention To Use	4	0
Usage	4	0

4.3 Outlier

An outlier is an observation in a dataset that significantly differs from other observations. It is characterised by its distance from the other data points and its lack of conformity to the pattern of the rest of the data. Outliers can occur due to various reasons, such as measurement or data entry errors, or they can represent rare but true events or phenomena (Tabachnick & Fidell, 2019). There are two types of outliers, univariate and multivariate outliers. In this section, the outcomes of both types of outliers will be discussed in detail.

4.3.1 Univariate Outlier

Univariate outliers are individual data points that are unusual or extreme in their distribution on a single variable, irrespective of the distribution of other variables in the dataset. These outliers are identified by examining one variable at a time. The *Z*-score was used to identify the univariate outliers in this study. According to Tabachnick & Fidell,

(2019), data can be considered to contain outliers if the Z-score falls outside the range of −3.29 to +3.29. In this study, nine indicators (SF1, PE1, PE2, PE3, PE4, PE6, FC1, HM1, and HM2) were found to contain outliers. Hence, 9 cases were removed due to univariate outliers, leaving a total of 402 cases in the final dataset after the removal.

Table 4.2: Univariate Outliers

Z score	Minimum	Maximum
(EE1)	-2.31	2.28
(EE2)	-2.30	2.32
(EE3)	-2.31	1.83
(EE4)	-2.27	2.09
(EE5)	-2.31	2.29
(EE6)	-2.54	1.65
(SF1)	**-3.61**	1.02
(SF2)	-2.88	1.17
(SF3)	-2.67	1.22
(SF4)	-2.68	1.13
(SF1)	-2.65	1.04
(PE1)	**-3.54**	0.94
(PE2)	**-3.68**	0.82
(PE3)	**-4.03**	0.88
(PE4)	**-3.44**	0.94
(PE5)	-3.03	1.19
(PE6)	**-3.46**	0.84
(EE1)	-2.31	2.28
(EE2)	-2.30	2.32
(EE3)	-2.31	1.83
(EE4)	-2.27	2.09
(EE5)	-2.31	2.29
(EE6)	-2.54	1.65
(SF1)	-2.65	1.04
(SF2)	-2.88	1.17

Table 4.2: Continued

(SF3)	-2.67	1.22
(SF4)	-2.68	1.13
(FC1)	**-3.45**	1.49
(FC2)	-2.43	1.72
(FC3)	-3.14	1.82
(FC4)	-2.85	1.85
(FC5)	-2.56	1.74
(HM1)	**-3.47**	1.05
(HM2)	**-3.31**	1.08
(PR3)	-3.06	2.15
(PR4)	-3.03	2.30
(PR5)	-3.02	2.18
(BI1)	-2.11	1.34
(BI2)	-3.00	1.08
(BI3)	-3.03	1.05
(BI4)	-3.02	1.05
(UB1)	-2.30	1.33
(UB2)	-2.31	1.53
(UB3)	-2.24	1.52
(UB4)	-2.29	1.54

4.3.2 Multivariate Outlier

Unlike univariate outliers that are identified by examining one variable at a time, multivariate outliers refer to data points that stand out from the distribution of multiple variables in a dataset (Tabachnick & Fidell, 2019). These outliers can result from various factors, such as errors during data entry or measurement, or natural fluctuations in the data. Detecting multivariate outliers involves analysing the relationships between multiple variables. Statistical methods such as Mahalanobis distance can be used for this purpose. Multivariate outliers occur if the *p*-value is less than .001. In this study, there were two cases

(85, 278) with *p*-values lower than .01. Hence, these two cases were removed from the data set.

Table 4.3: Multivariate Outliers

ID	MD	P-Value
85	1.55727	0.00125
278	1.66213	0.00166

4.4 Non Response Bias

Non-response bias in statistics refers to a type of bias that can occur when the individuals chosen to participate in a survey or study do not respond or complete the survey, leading to an incomplete sample. This scenario can result in a biased sample that does not accurately represent the population of interest, as those who do not respond may differ systematically from those who do respond in terms of their characteristics, attitudes, or behaviours. Non-response bias can lead to incorrect or misleading results and can be a significant problem in survey research. Researchers can attempt to reduce non-response bias by using strategies such as offering incentives, sending reminders, or adjusting the sample to match the characteristics of the non-respondents (Sammut et al., 2021). In this study, non-response bias was examined by using an independent *t* test. Non-response bias is considered to have occurred if the *p*-value is lower than .05. The study found that the constructs of performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, price value, habit, trust, risk, intention to use, and usage had *p*-values greater than .05, indicating the presence of non-response bias.

Table 4.4: Non-Response Bias

Group		N	Mean	SD	t	df	sig
Performance expectancy	Early	51	8.29	1.29	0.069	98	0.945
	Late	49	8.27	1.45			
Effort expectancy	Early	51	5.73	1.33	-0.792	98	0.430
	Late	49	5.93	1.24			
Social influence	Early	51	7.87	1.69	-0.408	98	0.684
	Late	49	8.00	1.55			
Facilitating condition	Early	51	6.86	1.24	-0.506	98	0.614
	Late	49	7.00	1.39			
Hedonic motivation	Early	51	7.84	1.50	-0.950	98	0.344
	Late	49	8.14	1.58			
Price value	Early	51	6.43	1.45	0.825	98	0.412
	Late	49	6.18	1.55			
Habit	Early	51	6.46	1.91	-0.881	98	0.381
	Late	49	6.81	2.07			
Trust	Early	51	7.45	1.64	-0.601	98	0.549
	Late	49	7.64	1.51			
Risk	Early	51	6.50	1.08	-1.379	98	0.171
	Late	49	6.80	1.08			
Intention To Use	Early	51	7.59	1.63	-0.571	98	0.570
	Late	49	7.77	1.56			
Usage	Early	51	6.73	2.38	-1.075	98	0.285
	Late	49	7.17	1.73			

4.5 Common Method Bias

Common method bias is a type of bias that can occur in research studies in which data are collected through self-report measures, surveys, or questionnaires. Common method bias refers to the systematic variance that is shared among variables due to the method of measurement, rather than due to the constructs being measured. This problem can happen when the same method is used to measure multiple constructs in a study, potentially leading

to correlations between variables that are higher than they should be (Kock, Berbekova, & Assaf, 2021). For example, respondents might agree or disagree with the statements consistently throughout the survey, leading to higher correlations between variables than what would be expected if the method of measurement were not factor. Common bias method can be problematic because it can lead to spurious relationships between variables that can affect the accuracy of statistical analyses and the conclusions drawn from the study. In this study, one factor Harman test was used to evaluate common method bias. In this test, data are regarded as having a common method bias issue if the variance produced in EFA is larger than 50 percent. Based on the Harman test results, common method bias was not an issue because the cumulative variance was 40.861%, which was less than 50%.

Table 4.5: Common Method Bias

Component	Initial Eigenvalues		
	Total	**% of Variance**	**Cumulative %**
1	20.022	40.861	40.861
Extraction Method: Principal Component Analysis.			

4.6 Normality Test

Normality, also known as normal distribution or Gaussian distribution, is a statistical concept that refers to the pattern or shape of a set of data. A normal distribution is a symmetrical bell-shaped curve that is characterised by its mean (average) and standard deviation. In a normal distribution, the majority of the data points cluster around the mean, and the distribution of the data is symmetric around the central point. Many statistical analyses assume that data follow a normal distribution, which can simplify the analysis and provide important information about the data. For example, in a normal distribution, approximately 68% of the data points fall within one standard deviation of the mean, and

approximately 95% of the data points fall within two standard deviations of the mean. This information can be useful for making predictions and drawing conclusions about the data. SEM AMOS requires data to be multivariate normal. Normality can be evaluated using various statistical tests, such as Shapiro-Wilk test or Kolmogorov-Smirnov test, histogram, steam and leaf, and skewness and kurtosis (Ghasemi & Zahediasl, 2012).

In this study, the skewness and kurtosis method was used to determine the data distribution. Skewness measures the degree of asymmetry in a distribution. A distribution is considered to be skewed if it is not symmetric, meaning that one tail is longer than the other. Skewness is positive if the tail on the right side of the distribution is longer and negative if the tail on the left side is longer. If a distribution is perfectly symmetric, then its skewness is zero. Kurtosis measures the degree of peakedness or flatness of a distribution relative to the normal distribution. A distribution with high kurtosis has a more peaked or heavy-tailed distribution than the normal distribution, while a distribution with low kurtosis has a flatter distribution than the normal distribution. A normal distribution has a kurtosis value of 3. Hence, distributions with kurtosis greater than 3 are considered to be leptokurtic, and distributions with kurtosis less than 3 are considered to be platykurtic. Both skewness and kurtosis are important measures in statistics and can help researchers understand the shape of their data and whether it is appropriate to use certain statistical tests or models. In the present study, the findings demonstrated the skewness value range between −0.89 and 0.08 and the kurtosis value range between −0.97 and +0.34.

Table 4.6: Skewness and Kurtosis

Construct	Skewness		Kurtosis	
	Statistic	SE	Statistic	SE
Performance expectancy	-0.89	0.12	0.34	0.24
Effort expectancy	-0.52	0.12	-0.57	0.24
Social influence	-0.47	0.12	-0.64	0.24
Facilitating condition	-0.43	0.12	-0.64	0.24
Price value	-0.82	0.12	0.28	0.24
Hedonic motivation	-0.75	0.12	0.22	0.24
Habit	0.08	0.12	-0.97	0.24
Trust	-0.52	0.12	-0.30	0.24
Risk	-0.20	0.12	-0.29	0.24
Intention To Use	-0.51	0.12	-0.42	0.24
Usage	-0.29	0.12	-0.50	0.24

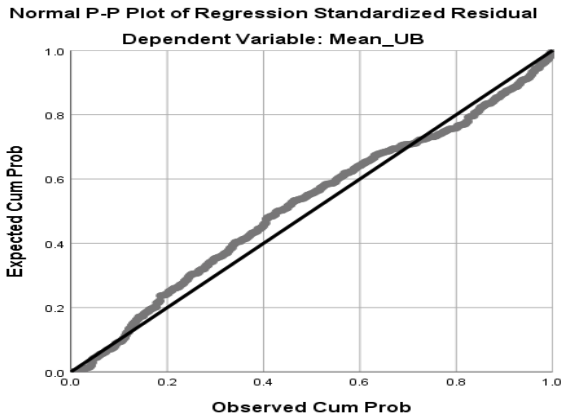


Figure 4.1: Linearity

In the context of structural equation modelling (SEM), linearity is an assumption that is often made about the relationships between the latent variables and the observed variables in the model (Schmidt & Finan, 2018). Specifically, it is assumed that the relationship is linear, which means that a change in the outcome variable (i.e., the observed variable) is proportional to the change in the predictor variable (i.e., the latent variable), with a constant

slope. More formally, linearity in SEM means that the regression coefficients in the model are constant across different levels of the predictor variables. This assumption is important because it allows the researcher to estimate the coefficients using methods like ordinary least squares (OLS) regression.

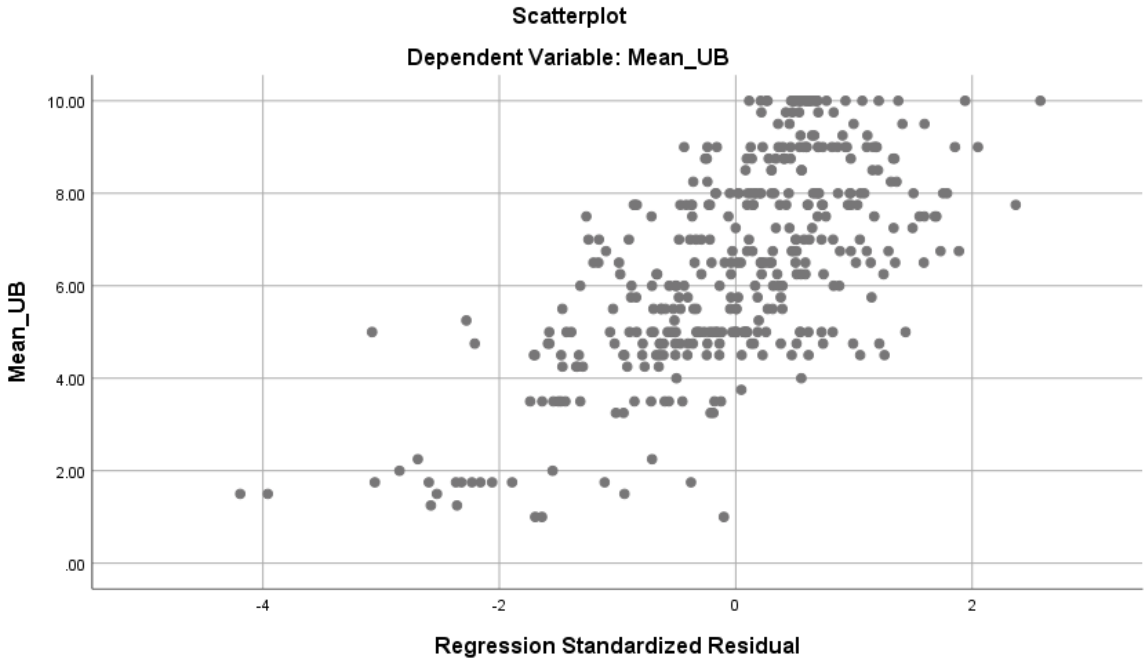


Figure 4.2: Homodecasity

Homoscedasticity is a concept in statistics that refers to the property of a set of data where the variance of the errors or the residual of a regression model is constant across all levels of the predictor variable(s). In other words, the variability of the errors or residuals is the same for all values of the independent variable(s). Homoscedasticity is important in statistical analysis because violating this assumption can lead to biased estimates of the regression coefficients, incorrect standard errors, and inaccurate hypothesis tests. It can also affect the precision and accuracy of the predictions made by the regression model (Schmidt & Finan, 2018).

4.7 Demoghrapics Statistics

Demographic characteristics are one of the basic and vital elements that warrant managerial attention. Specifically, policymakers are usually interested in learning the characteristics of respondents. In this study, the demographic questions were crafted carefully to meet the aims and objectives of the study. For this purpose, the demographic characteristics of the respondents are presented as follow:

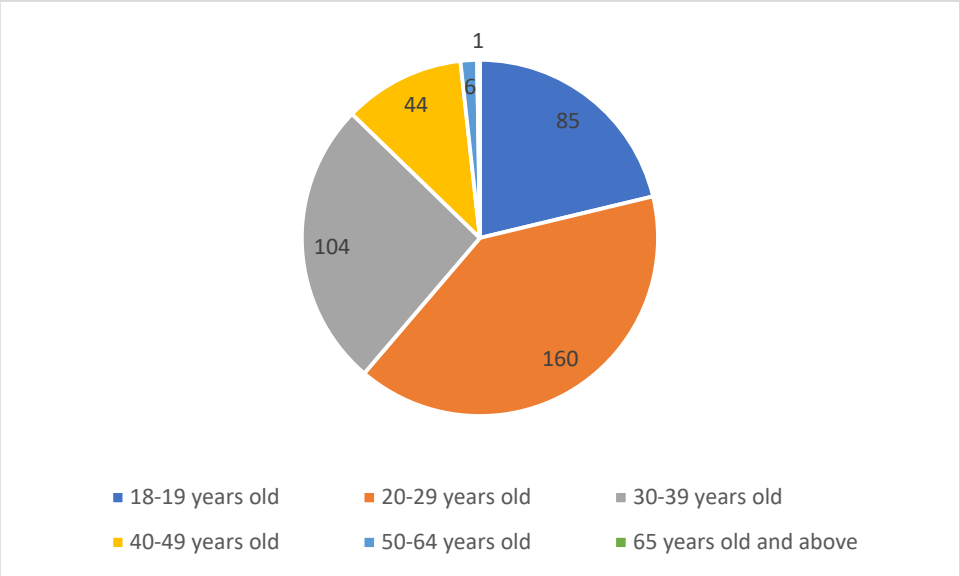


Figure 4.3: Respondents Age

The ages of the respondents are summarised in Figure 4.3. The results showed that out of the 400 respondents, 160 respondents (40%) were 20–29 years old. Another 104 respondents (26%) were 30–39 years old, followed by 85 respondents (21.3%) who were 18–19 years old and 44 respondents (11%) who were 40–49 years old. Finally, 7 respondents (1.8%) were 50–65 years old.

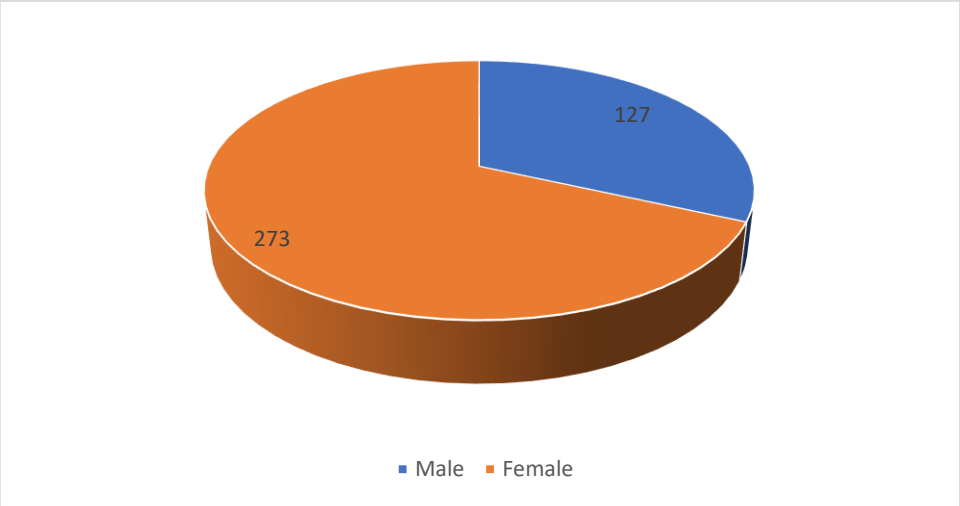


Figure 4.4: Respondents Gender

The ages of the respondents are summarised in Figure 4.4. Out of 400 respondents, There were 273 female (68.25%) and 127 male respondents (31.75%) participating in this study.

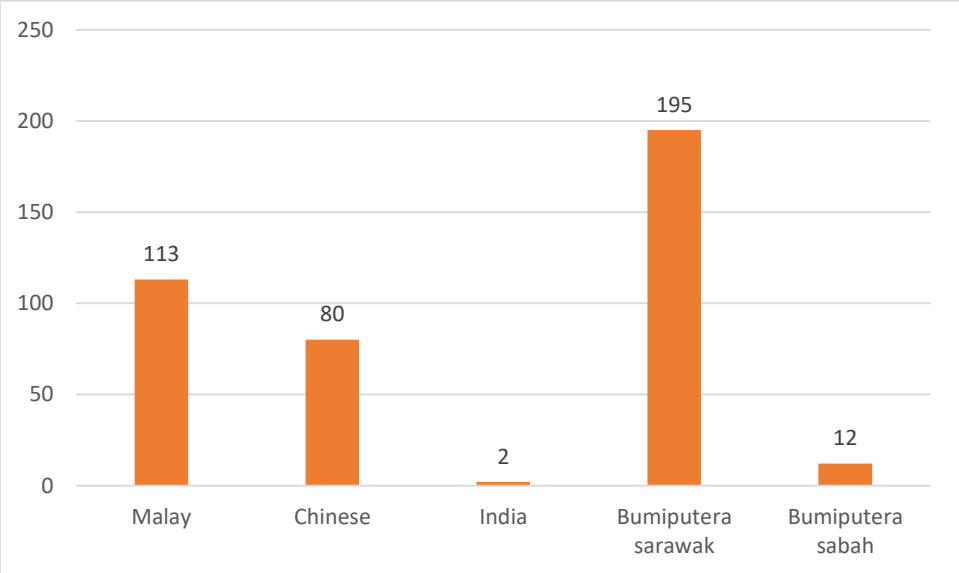


Figure 4.5: Respondents Race

Regarding ethnicity, the results presented in Figure 4.5 show that 195 respondents (48.8%) were Bumiputera Sarawak, 113 respondents (28.2%) were Malay, 80 respondents (20%) were Chinese, 12 respondents (2.5%) were Bumiputera Sabah, and 2 respondents (0.5%) were Indian.

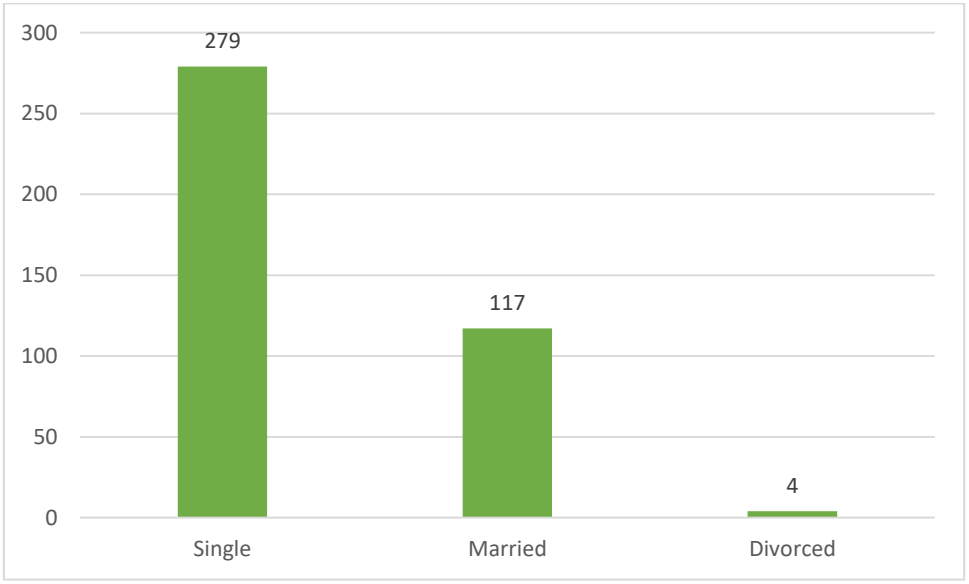


Figure 4.6: Respondents Marital Status

The results presented in Figure 4.6 show that the majority or 279 respondents (69.7%) were single, 117 respondents (29.3%) were married, and 4 respondents (1.0%) were divorced.

The educational background of the respondents are summarised in Figure 4.7. The results showed that slightly less than half or 189 respondents (47.3%) were diploma holders, 112 respondents (28%) were bachelor degree holders, 63 respondents (15.8%) were master degree holders, 24 respondents (6%) were school leavers, and 9 respondents (2.3%) were doctoral degree holders.

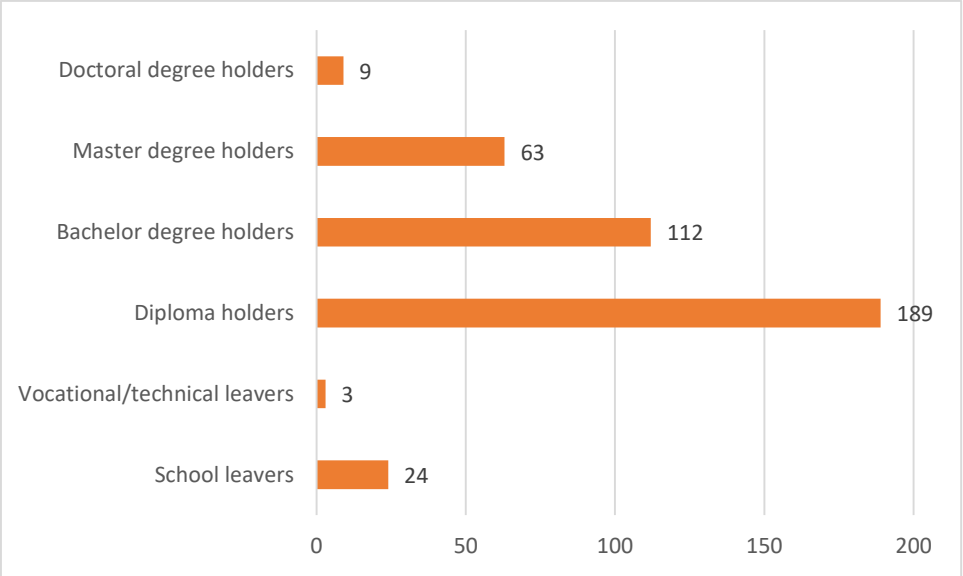


Figure 4.7: Respondents Academic Qualification

The results presented in Figure 4.8 show that most of the respondents or 343 respondents (85.8%) stayed in urban areas, and 57 respondents (14.2%) stayed in sub-urban areas.

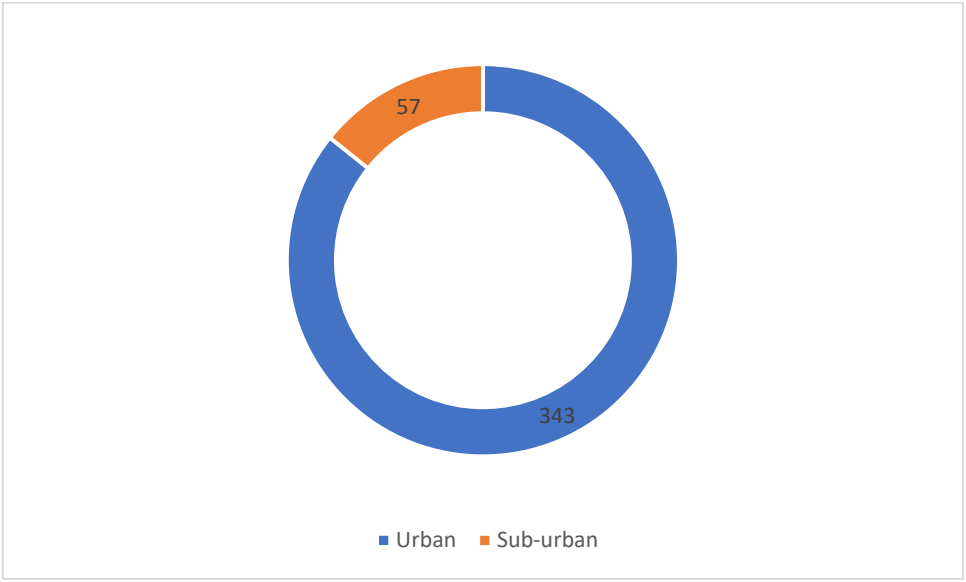


Figure 4.8: Respondents Residency

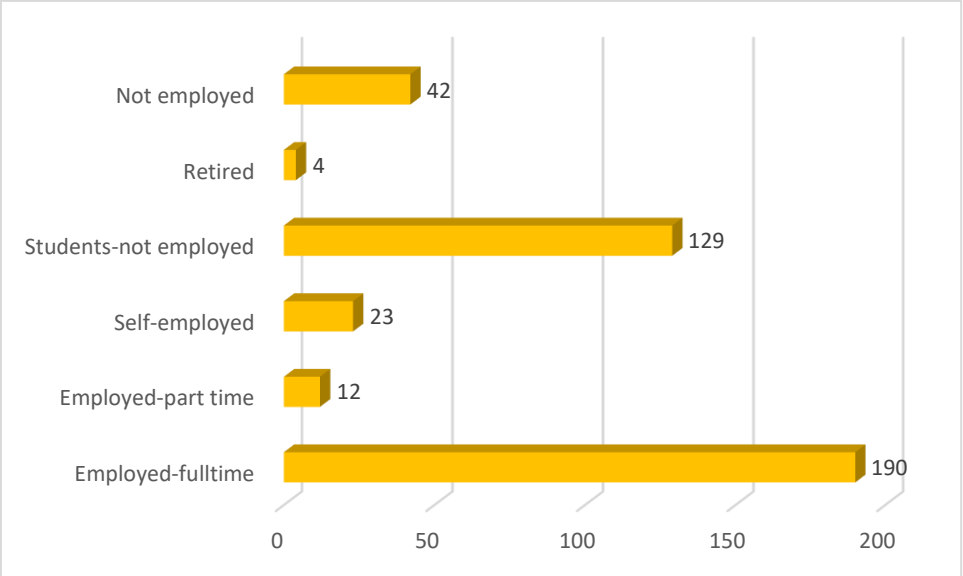


Figure 4.9: Respondents Employment Status

The employment status of the respondents are summarised in Figure 4.9. The results showed that total of 190 respondents (47.5%) were full-time employees, 129 respondents (32.3%) were students, 42 respondents (10.5%) were unemployed, 23 respondents (5.8%) were self-employed, 12 respondents (3.0%) were part-time employees, and 4 respondents (1%) were retirees.

The results presented in Figure 4.10 shows that about a third of the respondents or 135 respondents (33.8%) earned less than RM1,500 per month, 76 respondents (19%) earned RM1,501–RM2,500 per month, and 73 respondents (18.3%) earned RM4,501–RM5,500 per month. Another 29 respondents (7.2%) earned RM2,501–RM3,500 per month, 25 respondents (6.3%) earned RM5,501–RM6,500 per month, and 24 respondents (6%) earned RM6,501–RM7,500 per month. Finally, 4 respondents (1%) earned RM7,501–RM8,500 per month, 4 respondents (1%) earned RM8,501–RM9,500 per month, 2 respondents (0.5%) earned RM9,501–RM10,500 per month, and 12 respondents (3%) earned RM10501 and above.

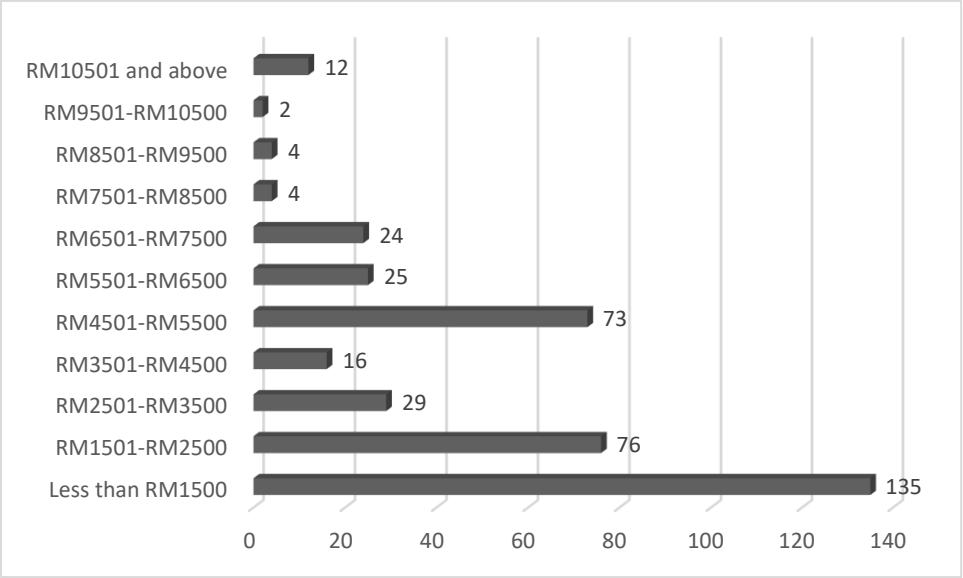


Figure 4.10: Respondents Monthly Income

The family member of the respondents are summarised in Figure 4.11. The results showed that almost half of the respondents or 194 respondents (48.5%) had more than 6 family members, 145 respondents (36.3%) had 3–4 family members, and 61 respondents (15.3%) had 1–2 family members.

4.8 Usage of Online Food Delivery Applications

Out of the 400 respondents, the majority or 327 respondents (81.8%) mentioned that they had used and had kept ordering food and beverages via online food delivery applications. Another 73 respondents (18.3%) had also experienced using online food delivery applications but had stopped ordering food via those applications are summarized in Figure 4.12.



Figure 4.11: Respondents Family Member

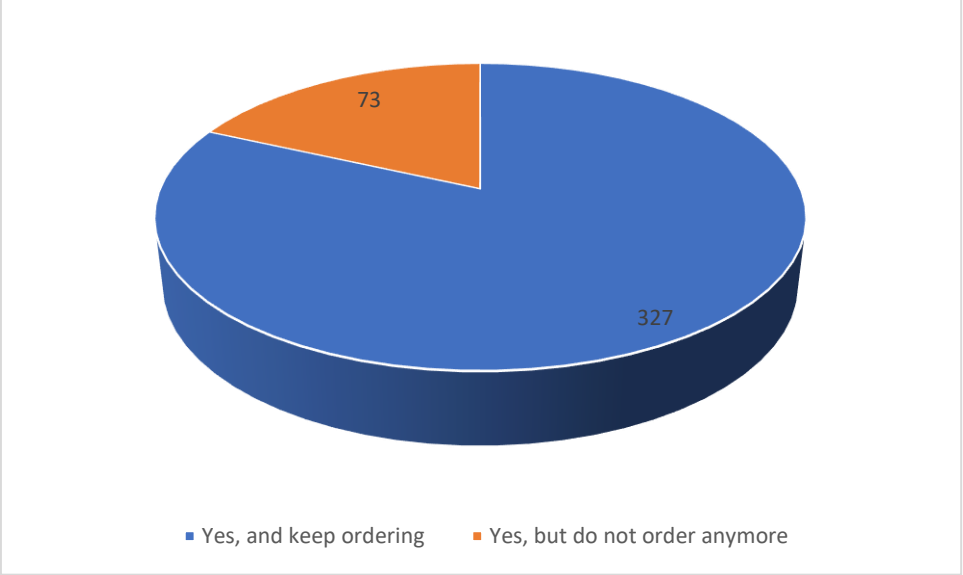


Figure 4.12: Usage of OFDA

Figure 4.13 summarized of a total of 132 respondents (33%) used online food delivery applications for a times in a month, 111 respondents (18.3%) used the applications once a month, 75 respondents (18.8%) used the applications 2–3 times per week, 42 respondents (10.5%) used the applications once a week at most, 24 respondents (6%) used

the applications more than 3 times per week, and 16 respondents (4%) used the applications once daily or in two days at most.

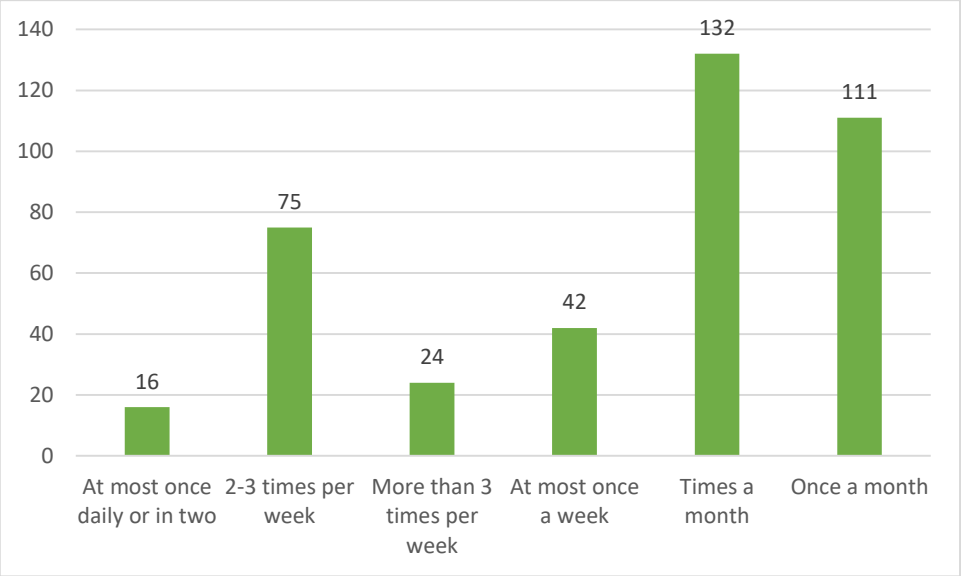


Figure 4.13: Frequency of Using OFDA

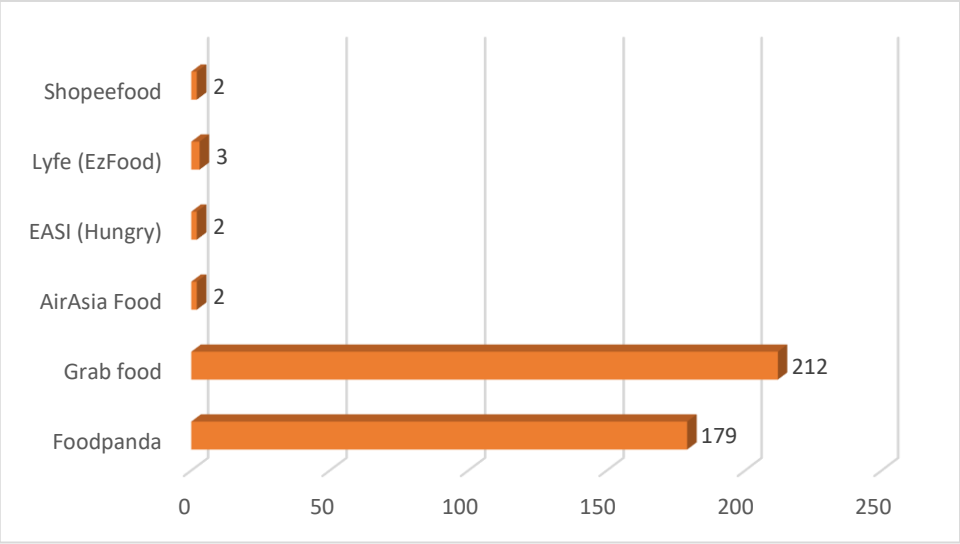


Figure 4.14: Types of OFDA

Figure 4.14 shows slightly more than half of the respondents or 212 respondents (53%) used GrabFood, and 179 respondents (44.75%) used Foodpanda. Meanwhile, 9

respondents (2.25%) used other platforms such as ShopeeFood, AirAsia Food, EASI, and Lyfe.

About a third of the respondents or 145 respondents (36.3%) had been using online food delivery applications for 1–2 years. Another 101 respondents (25.3%) had been using online food delivery applications for 2–3 years, and 91 respondents (22.8%) had been using online food delivery applications for more than 3 years. Lastly, 63 respondents (15.8%) had been using online food delivery applications for less than one year.

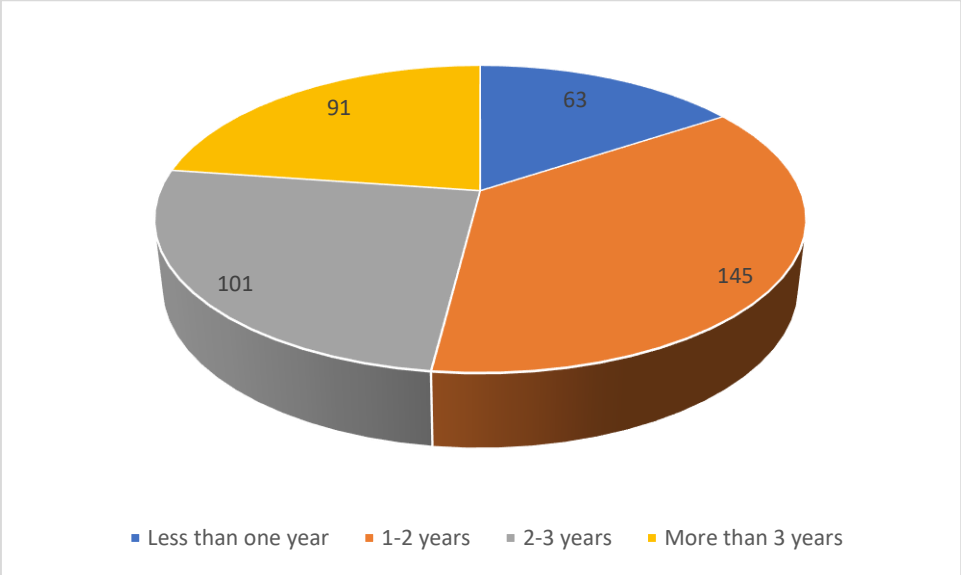


Figure 4.15: Experience of Using OFDA

A total of 155 respondents (38.75%) used online food delivery applications to buy lunches during weekdays, and 72 respondents (18%) used online food delivery applications to buy lunches during weekends. Another 56 respondents (14%) used online food delivery applications to buy dinners during weekdays. Finally, 117 respondents (29%) used online food delivery applications to buy breakfasts and afternoon snacks during weekdays and weekends summarized in Figure 4.16.

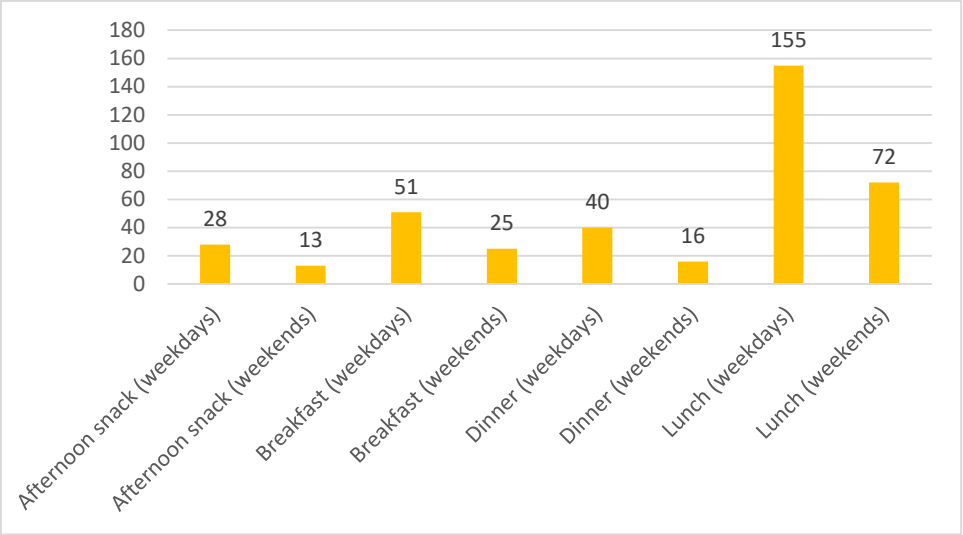


Figure 4.16: Time to Use OFDA

Figure 4.16 shows about two-thirds of the respondents or 265 respondents (66%) used online food delivery applications to save time and to benefit from the convenience offered. The remaining 135 respondents (34%) used online food delivery applications for reasons such as vast choices, ability to compare prices, and discounted prices offered.

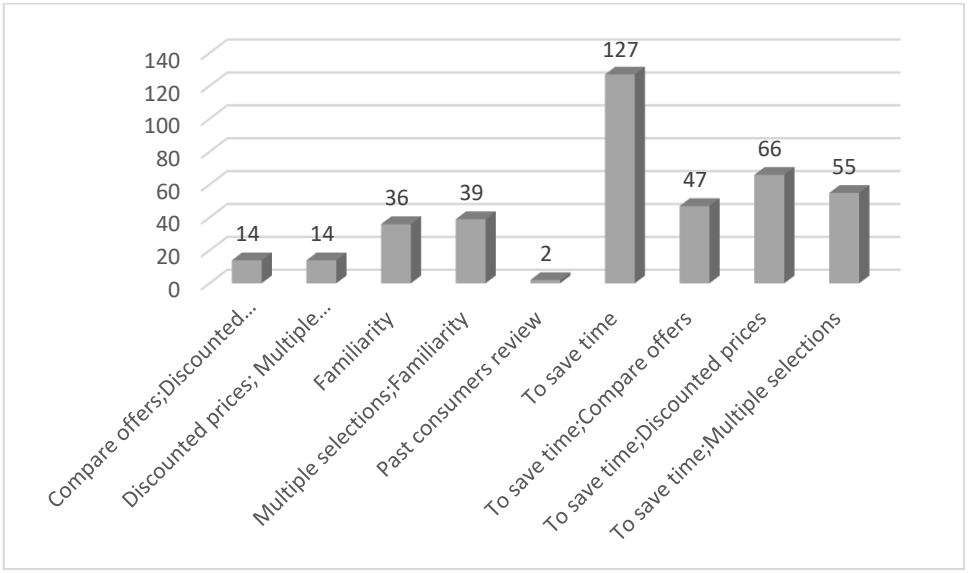


Figure 4.17: Reasons of Using OFDA

4.9 Descriptive Analysis

Descriptive analysis was used to examine the characteristics of the data. In this study, 12 constructs were used to develop the structural model. Descriptive analysis, consisting of mean and standard deviation (*SD*), was computed for each construct. Following Andrade, (2020), the mean values were categorised into low (1–4), moderate (4.1–7.0), and high (7.1–10). The findings showed six constructs, namely effort expectancy, facilitating condition, hedonic motivation, habit, risk, and usage, had moderate mean values. Meanwhile, performance expectancy, social influence, price value, trust, and intention to use had high mean values.

Table 4.7: Descriptive Analysis

Construct	Mean	SD	Intepretation
Performance expectancy	8.20	1.57	High
Effort expectancy	5.46	1.74	Moderate
Social influence	7.55	1.87	High
Facilitating condition	6.70	1.58	Moderate
Price value	7.86	1.80	High
Hedonic motivation	6.07	1.57	Moderate
Habit	5.82	2.51	Moderate
Trust	7.29	1.96	High
Risk	6.34	1.51	Moderate
Intention To Use	7.45	1.97	High
Usage	6.53	2.22	Moderate

4.10 Confirmatory Factor Analysis

1. Performance Expectancy (PE)

Initially, there were six indicators for the construct of performance expectancy (PE). However, the results for the performance expectancy measurement model demonstrated poor fit (CMIN = 7.917, RMSEA = 0.130, CFI = 0.966, IFI = 0.966, TLI = 0.943). Further action

was taken to improve the goodness of fit of the data. Figure 4.3 shows the initial CFA for performance expectancy.

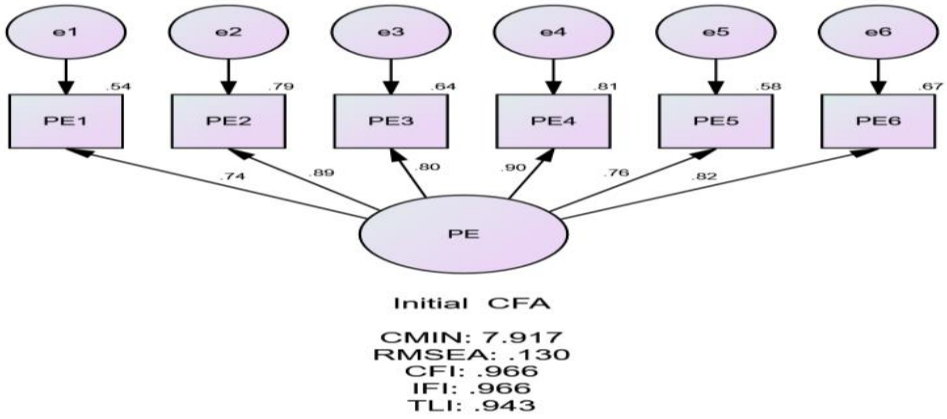


Figure 4.18: Initial CFA for Performance Expectancy (PE)

Table 4.8 presents the modification indices for performance expectancy, where e2 and e6 were correlated (6.543) and e1 and e4 were also correlated (20.148).

Table 4.8: Modification Indices of Performance Expectancy (PE)

Correlation			M.I.	Par Change
e5	<-->	e6	4.418	-0.192
e3	<-->	e6	11.086	-0.243
e3	<-->	e5	6.244	0.207
e3	<-->	e4	16.658	0.241
e2	**<-->**	**e6**	**6.543**	**0.166**
e2	<-->	e3	8.189	-0.169
e1	**<-->**	**e4**	**20.148**	**-0.325**
e1	<-->	e2	18.23	0.309

Table 4.9 show factor loading of the PE in between initial and final. Factor loading of initial model was reported ranged in between 0.736-0.889 while final CFA was recorded in between 0.754-0.931. PE1 was deleted due to higher modification index (20.148).

Table 4.9: Factor Loading of Performance Expectancy (PE)

Indicator	Initial CFA	Final CFA	Remark
PE1	0.736	Deleted	Higher MI (20.148)
PE2	0.889	0.847	Proceed
PE3	0.801	0.817	Proceed
PE4	0.899	0.931	Proceed
PE5	0.759	0.754	Proceed
PE6	0.821	0.792	Proceed

After making several modifications, the measurement model for performance expectancy showed an acceptable fit (CMIN = 3.70, RMSEA = 0.081, CFI = 0.993, IFI = 0.993, TLI = 0.982).

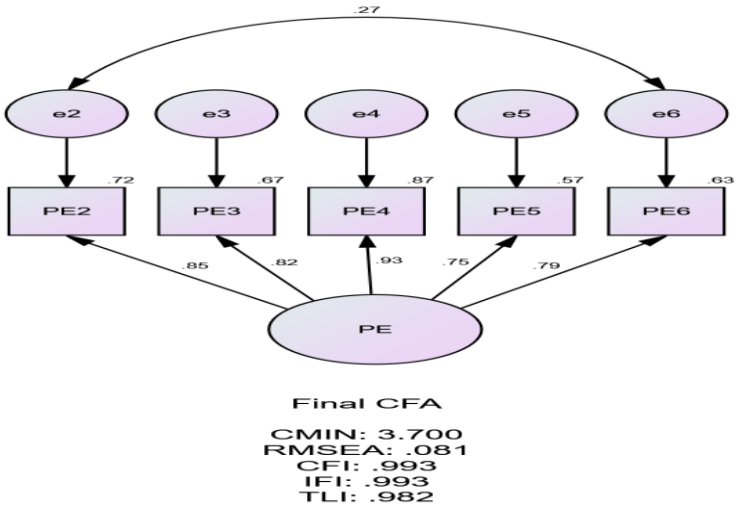


Figure 4.19: Final CFA for Performance Expectancy (PE)

Table 4.10 shows the initial and final goodness of fit results for performance expectancy. The goodness of fit indices improved from the initial to the final CFA and demonstrated satisfactory fit.

Table 4.10: Goodness of Fit Indices for Performance Expectancy (PE)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	7.92	3.7
RMSEA	≤ .08	0.13	0.08
CFI	≥ .90	0.97	0.99
IFI	≥ .90	0.97	0.99
TLI	≥ .90	0.94	0.98

2. Effort Expectancy

The effort expectancy (EE) measurement model had six indicators. The initial model showed unacceptable fit (CMIN = 5.056, RMSEA = 0.101, CFI = 0.989, IFI = 0.989, TLI = 0.981), as shown in Figure 4.20.

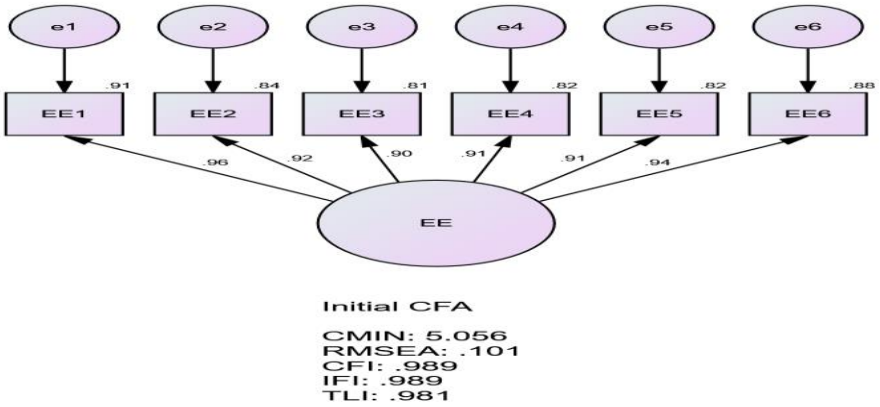


Figure 4.20: Initial CFA Effort Expectancy (EE)

Table 4.11 presents the modification indices for effort expectancy, where e3 and e6 were correlated (7.843) and e1 and e3 were also correlated (10.255).

Table 4.11: Modification Indices of Effort Expectancy (EE)

Effort Expectancy			M.I.	Par Change
e5	<-->	e6	12.706	-0.098
e3	**<-->**	**e6**	**7.843**	0.088
e2	<-->	e6	7.832	0.081
e1	<-->	e5	11.626	0.086
e1	**<-->**	**e3**	**10.255**	-0.093

The initial factor loadings were in the range of .898–.955, and the final factor loadings were in the range of .913–.971. EE2 was removed due to the higher modification index of 7.832.

Table 4.12: Factor Loading of Effort Expectancy (EE)

Indicator	Initial CFA	Final CFA	Remark
EE1	0.955	0.971	Proceed
EE2	0.919	Deleted	Higher MI (7.832)
EE3	0.898	0.908	Proceed
EE4	0.906	0.906	Proceed
EE5	0.908	0.913	Proceed
EE6	0.939	0.923	Proceed

The final CFA demonstrated excellent fit after several modification were made, as shown in Figure 4.21.

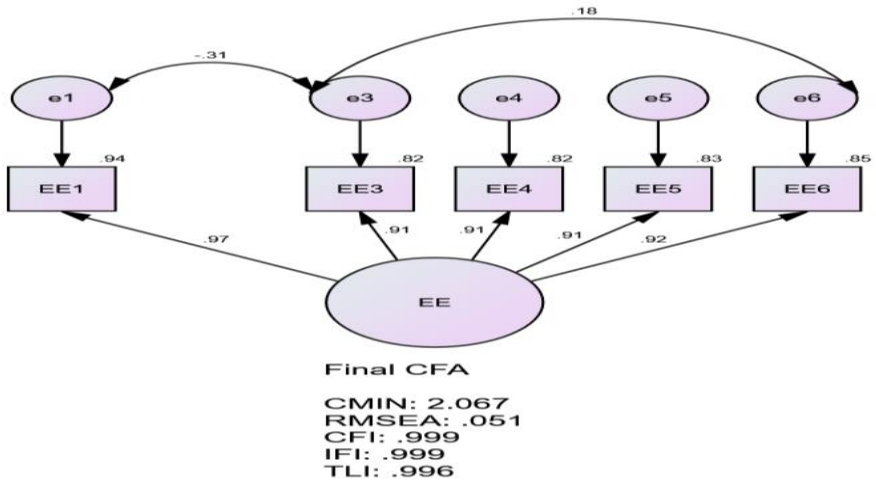


Figure 4.21: Final CFA Effort Expectancy (EE)

The goodness of fit indices improved from the initial to the final CFA.

Table 4.13: Goodness of Fit Indices of Effort Expectancy (EE)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	5.06	2.067
RMSEA	≤ .08	0.10	0.051
CFI	≥ .90	0.99	0.999
IFI	≥ .90	0.99	0.999
TLI	≥ .90	0.98	0.996

3. Social Influence

Social influence had four initial indicators. However, the goodness of fit did not achieve the minimum requirement (CMIN = 6.806, RMSEA = 0.121, CFI = 0.990, IFI = 0.990, and TLI = 0.970), as shown in Figure 4.22.

Table 4.14 presents the modification indices for social influence. The results showed that e1 and e2 were correlated (7.954).

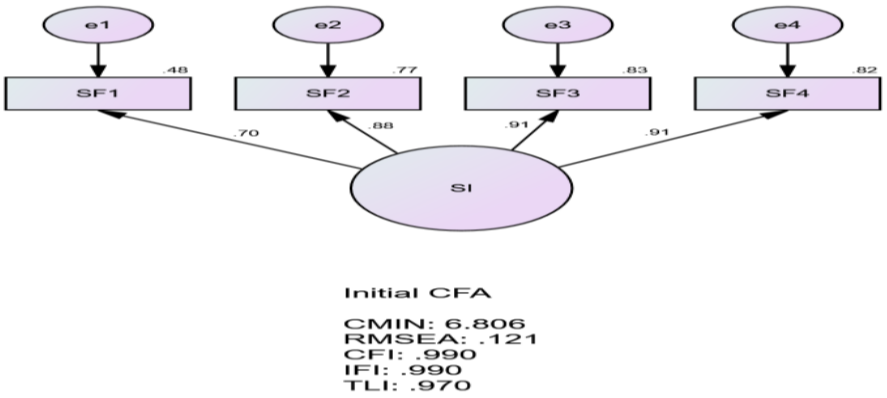


Figure 4.22: Initial CFA of Social Influence (SF)

Table 4.14: Modification Indices of Social Influence (SF)

SI			M.I.	Par Change
e1	<-->	e4	7.665	-0.213
e1	<-->	**e2**	**7.954**	0.219

The initial and final factor loadings for social influence are presented in Table 4.15. In the initial CFA, factor loadings ranged between .817 and .913. In the final CFA, factor loadings ranged between .795 and 0.927.

Table 4.15: Factor Loading of Social Influence (SF)

Indicator	Initial CFA	Final CFA	Remark
SF1	0.817	0.795	Proceed
SF2	0.865	0.834	Proceed
SF3	0.913	0.927	Proceed
SF4	0.884	0.87	Proceed
SF5	0.891	0.903	Proceed

The final measurement model for social influence is presented in Figure 4.23. The measurement model demonstrated satisfactory fit.

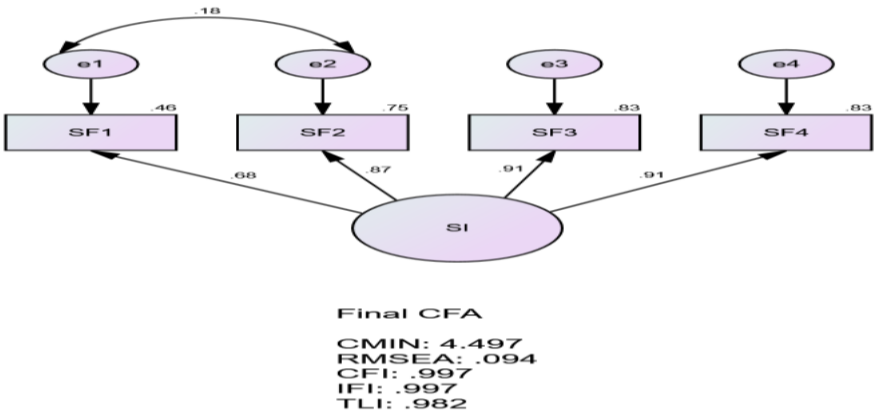


Figure 4.23: Final CFA of Social Influence (SF)

Table 4.16 presents a comparison of the goodness of fit indices between the initial and the final CFA. The initial CFA showed poor fit, whereas the final CFA demonstrated acceptable fit.

Table 4.16: Goodness of Fit Indices for Social Influence (SF)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	6.81	4.497
RMSEA	≤ .08	0.12	0.094
CFI	≥ .90	0.99	0.997
IFI	≥ .90	0.99	0.977
TLI	≥ .90	0.97	0.982

4. Facilitating Condition

Five indicators were used to measure facilitating condition. The initial CFA demonstrated poor fit, as shown in Figure 4.24.

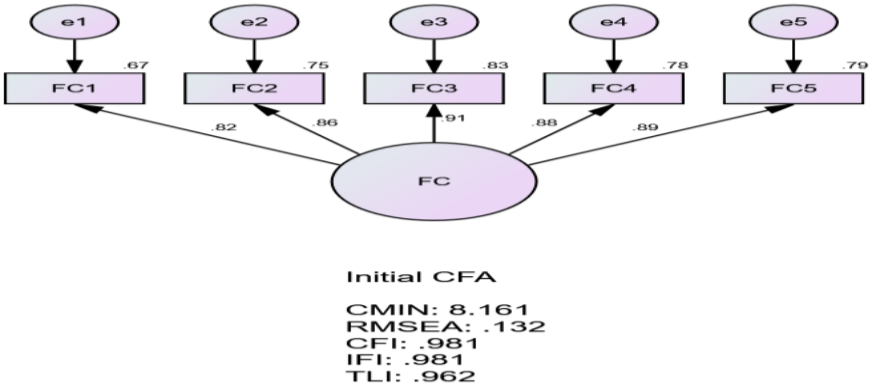


Figure 4.24: Initial CFA of Facilitating Condition (FC)

The results showed that e2 an e4 were correlated (4.265), and e1 and e2 were also correlated (18.344), as per Table 4.17.

Table 4.17: Modification Indices of Facilitating Condition (FC)

FC			M.I.	Par Change
e3	<-->	e5	19.231	0.169
e2	<-->	e5	6.211	-0.12
e2	**<-->**	**e4**	**4.265**	0.105
e2	<-->	e3	6.21	-0.109
e1	<-->	e5	5.609	-0.107
e1	**<-->**	**e2**	**18.344**	0.218

Table 4.18 presents the initial and final factor loadings for facilitating condition. The initial factor loadings were in the range of .82–.91, and the final factor loadings were in the range of .72–.89.

Table 4.18: Factor Loading of Facilitating Condition (FC)

Indicator	Initial CFA	Final CFA	Remark
FC1	0.82	0.76	Proceed
FC2	0.87	0.87	Proceed
FC3	0.91	0.89	Proceed
FC4	0.88	0.72	Proceed
FC5	0.89	0.82	Proceed

After several modifications had been made, the model for facilitating condition demonstrated good fit, as shown in Figure 4.25.

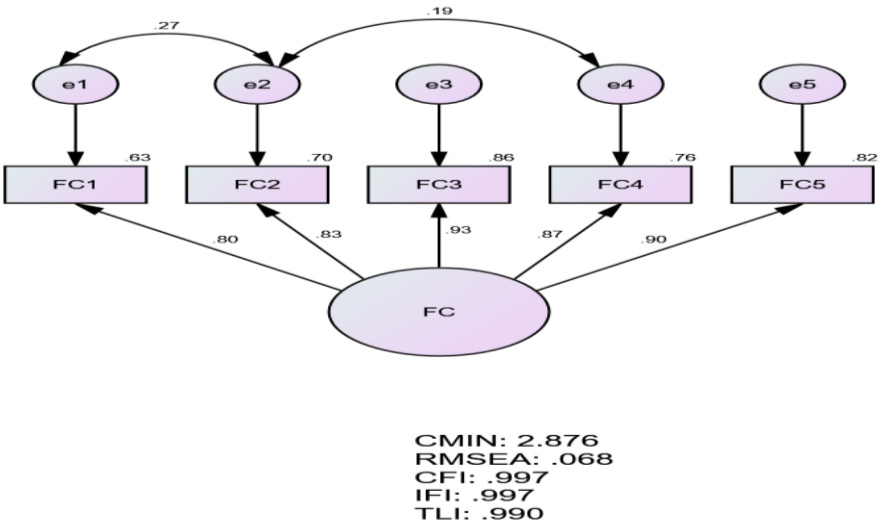


Figure 4.25: Final CFA of Facilitating Condition (FC)

Table 4.19 presents the initial and final CFA results for facilitating conditions. It shows acceptable fit according to CMIN, RMSEA, CFI, IFI, and TLI indices.

Table 4.19: Goodness of Fit Indices for Facilitating Condition (FC)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	8.16	2.876
RMSEA	≤ .08	0.13	0.068
CFI	≥ .90	0.98	0.997
IFI	≥ .90	0.98	0.997
TLI	≥ .90	0.96	0.990

5. Price Value

Price value (PV) was measured using three indicators. The initial model demonstrated poor fit, as shown in Figure 4.26.

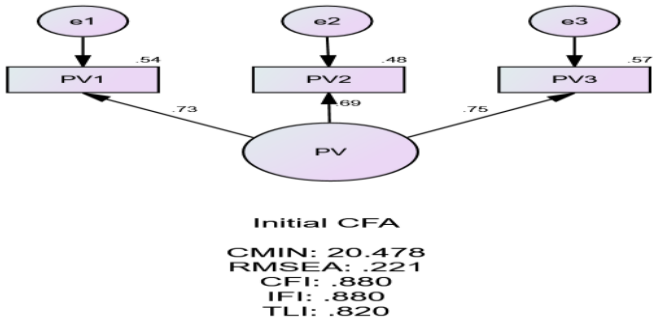


Figure 4.26: Initial CFA of Price Value (PV)

Table 4.20 shows that e1 and e3 were correlated (18.809).

Table 4.20: Modification Indices of Price Value (PV)

PV			M.I.	Par Change
e3	<-->	PV	7.136	0.52
e2	<-->	PV	27.846	-1.178
e1	<-->	PV	4.121	0.416
e1	**<-->**	**e3**	**18.809**	0.796
e1	<-->	e2	8.41	-0.613

Table 4.21 presents the initial and final factor loadings from the CFA. The factor loadings were in the .694–.754 range in the initial CFA and in the .826–.913 range in the final CFA.

Table 4.21: Factor Loading of Price Value (PV)

Indicator	Initial CFA	Final CFA	Remark
PV1	0.732	0.913	Proceed
PV2	0.694	0.826	Proceed
PV3	0.754	0.847	Proceed

Figure 4.27 depicts the final model for price value. It shows satisfactory fit.

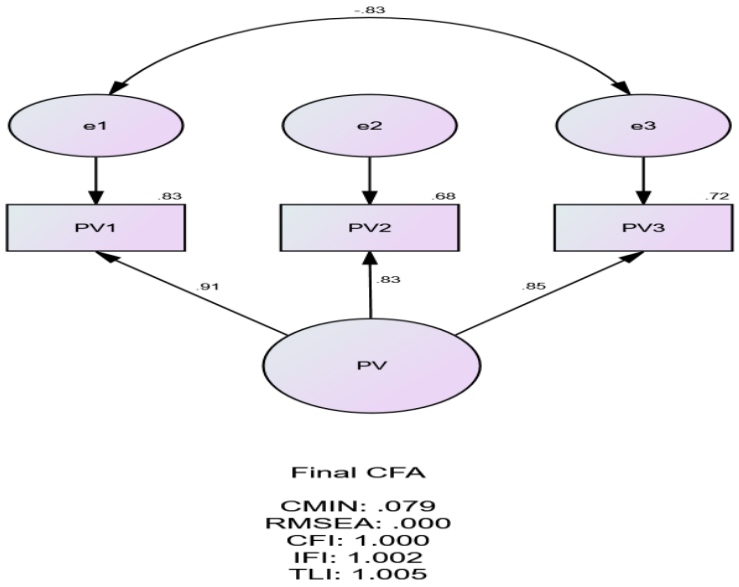


Figure 4.27: Final CFA of Price Value (PV)

Table 4.22 presents the goodness of fit results. After several modifications had been made, the final CFA showed acceptable model fit.

Table 4.22: Goodness of Fit Indices for Price Value (PV)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	20.48	0.079
RMSEA	≤ .08	0.22	0.000
CFI	≥ .90	0.88	1.000
IFI	≥ .90	0.88	1.000
TLI	≥ .90	0.20	1.000

6. Hedonic Motivation

Three indicators were used to measure hedonic motivation. The initial model demonstrated poor fit, as shown in Figure 4.28.

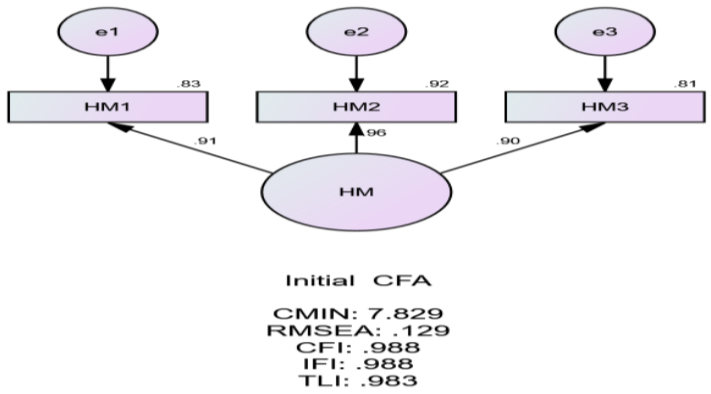


Figure 4.28: Initial CFA for Hedonic Motivation (HM)

Table 4.23 shows that e1 and e3 were correlated.

Table 4.23: Modification Indices of Hedonic Motivation (HM)

HM			M.I.	Par Change
e2	<-->	HM	8.338	0.223
e1	<-->	HM	10.954	-0.315

Factor loadings for the initial and final CFA are shown in Table 4.24. The initial factor loadings were in the range of .903–.960, and the final factor loadings were in the range of .927–.937.

Table 4.24: Factor Loading of Hedonic Motivation (HM)

Indicator	Initial CFA	Final CFA	Remark
HM1	0.909	0.937	Proceed
HM2	0.960	0.933	Proceed
HM3	0.903	0.927	Proceed

The final CFA for hedonic motivation demonstrated satisfactory fit, as shown in Figure 4.29.

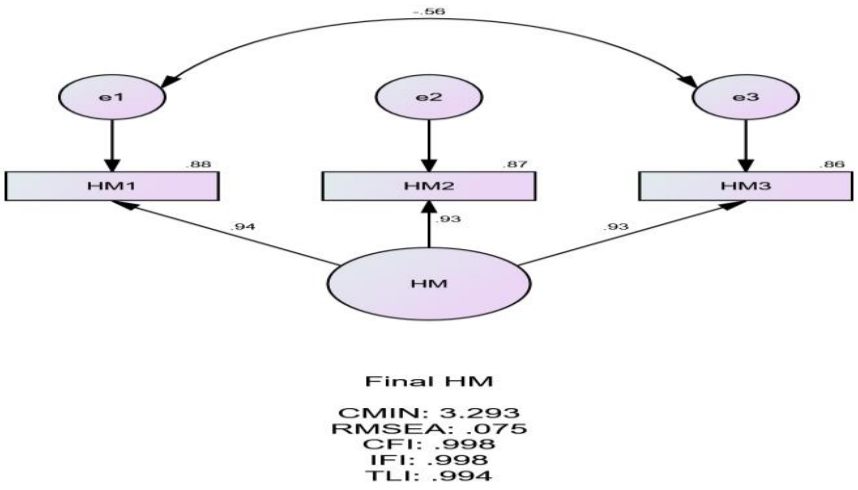


Figure 4.29: Final CFA of Hedonic Motivation (HM)

Table 4.25 presents a comparison of the goodness of fit indices between the initial and the final CFA for hedonic motivation. The final CFA demonstrated satisfactory fit after several modifications had been made.

Table 4.25: Goodness of Fit Indices (HM)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	7.83	3.293
RMSEA	≤ .08	0.13	0.075
CFI	≥ .90	0.99	0.998
IFI	≥ .90	0.99	0.998
TLI	≥ .90	0.98	0.994

7. Habit

Habit was measured using four indicators. The goodness of fit results for the initial CFA demonstrated poor fit, as shown in Figure 4.30.

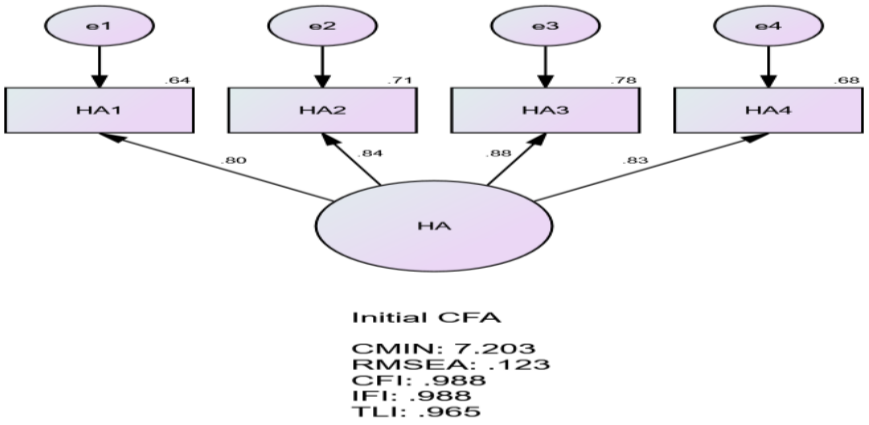


Figure 4.30: Initial CFA of Habit (HA)

Table 4.26 presents the modification indices. The results revealed that e2 and e4 were correlated (6.988).

Table 4.26: Modification Indices of Habit (HA)

HA			M.I.	Par Change
e2	<-->	**e4**	**6.988**	-0.413
e1	<-->	e3	6.329	-0.358

Table 4.27 presents the factor loadings for the initial and final CFA. In the initial CFA, the factor loadings ranged from .802 to .882. In the final CFA, the factor loadings ranged from .792 to .879.

Table 4.27: Factor Loading of Habit (HA)

Indicator	Initial CFA	Final CFA	Remark
HA1	0.802	0.792	Proceed
HA2	0.843	0.879	Proceed
HA3	0.882	0.858	Proceed
HA4	0.827	0.863	Proceed

The final CFA demonstrated satisfactory factor loadings, as shown in Figure 4.31.

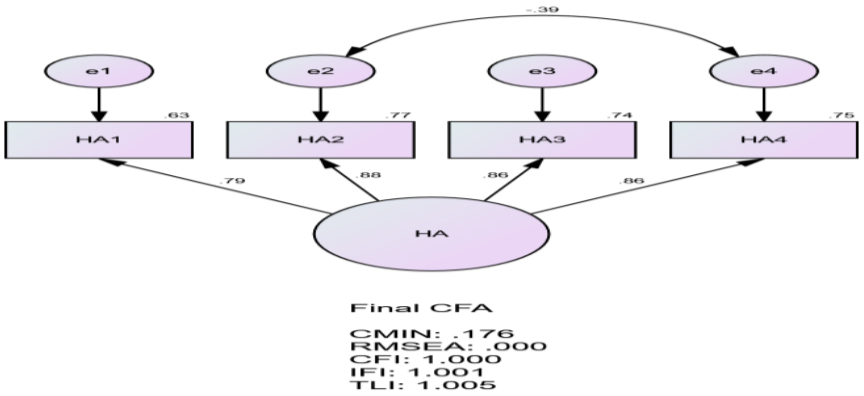


Figure 4.31: Final CFA of Habit (HA)

Table 4.28 shows the goodness of fit results for habit. It shows satisfactory fit. Five fitness indices were used, namely CMIN, RMSEA, CFI, IFI, and TLI.

Table 4.28: Goodness of Fit for Habit (HA)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	7.20	0.176
RMSEA	≤ .08	0.12	0.000
CFI	≥ .90	0.99	1.000
IFI	≥ .90	0.99	1.000
TLI	≥ .90	0.97	1.000

8. Trust

Trust was measured using five indicators. The goodness of fit test demonstrated poor fit, as shown in Figure 4.32.

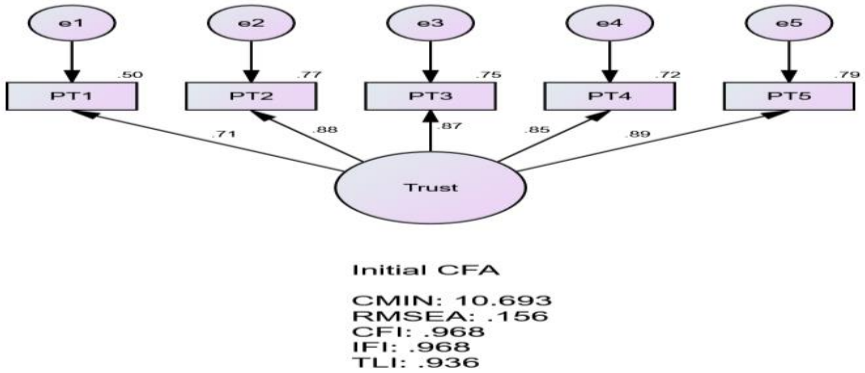


Figure 4.32: Initial CFA of Trust (PT)

In terms of the modification indices, e1 and e5 were correlated (31.252), as shown in Table 4.29.

Table 4.29: Modification Indices of Trust (PT)

Trust			M.I.	Par Change
e3	<-->	e5	12.193	0.246
e2	<-->	e3	5.334	-0.17
e1	**<-->**	**e5**	**31.252**	-0.553
e1	<-->	e4	12.716	0.394

e1	<-->	e2	6.81	0.269

The factor loadings changed slightly after the final CFA was conducted. In the initial CFA, the factor loading range was .802–.882. In the final CFA, the factor loading range was .792–.879, as shown in Table 4.30.

Table 4.30: Factor Loading of Trust (PT)

Indicator	Initial CFA	Final CFA	Remark
PT1	0.802	0.792	Proceed
PT2	0.843	0.879	Proceed
PT3	0.882	0.858	Proceed
PT4	0.827	0.863	Proceed

After several modifications were made, the goodness of fit for trust demonstrated better fit as, shown in Figure 4.33.

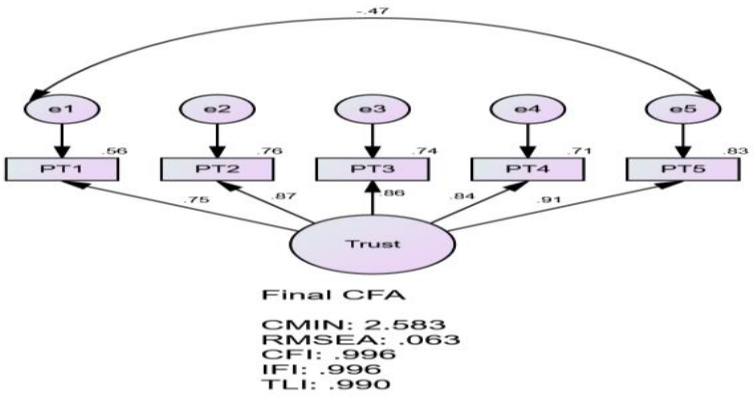


Figure 4.33: Final CFA of Trust (PT)

Table 4.31 presents a comparison of the goodness of fit indices between the initial and final CFA. The final CFA demonstrated better fit.

Table 4.31: Goodness of Fit Indices for Trust (PT)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	10.69	2.583
RMSEA	≤ .08	0.16	0.063
CFI	≥ .90	0.97	0.996
IFI	≥ .90	0.97	0.996
TLI	≥ .90	0.94	0.99

9. Risk

Five indicators were used to measure risk. The findings demonstrated poor fit, as shown in Figure 4.34.

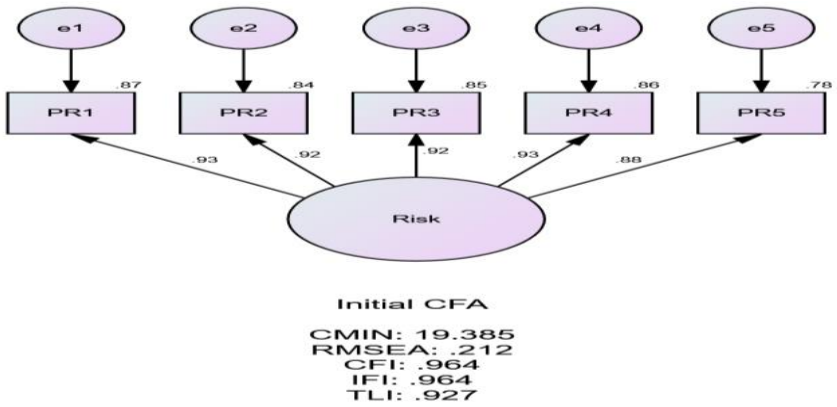


Figure 4.34: Initial CFA of Risk (PR)

In terms of the modification indices, there were correlations between e2 and e5 (14.527) and between e2 and e4 (32.654), as shown in Table 4.32.

Table 4.32: Modification Indices of Risk (PR)

Risk			M.I.	Par Change
e3	<-->	e5	30.283	0.173
e3	<-->	e4	36.369	-0.153
e2	**<-->**	**e5**	**14.527**	-0.114
e2	**<-->**	**e4**	**32.654**	0.139
e1	<-->	e3	5.871	0.066

The initial factor loading range was .884–.935. Two factors, PR1 and PR3, were then deleted due to modification indices issues, as shown in Table 4.33.

Table 4.33: Factor Loading of Risk (PR)

Indicator	Initial CFA	Final CFA	Remark
PR1	0.935	Deleted	Proceed
PR2	0.916	0.963	Proceed
PR3	0.921	Deleted	Proceed
PR4	0.928	0.918	Proceed
PR5	0.884	0.894	Proceed

Figure 4.35 shows the final CFA for the risk construct. The model demonstrated satisfactory fit.

Table 4.34 presents a comparison of the goodness of fit indices for the risk construct. The initial CFA showed poor fit (CMIN = 19.385, RMSEA = 0.212, CFI = 0.964, IFI = 0.964, and TLI = 0.927). However, the indices improved after the researcher made several modifications (CMIN = 2.583, RMSEA = 0.063, CFI = 0.996, IFI = 0.996, and TLI = 0.99).

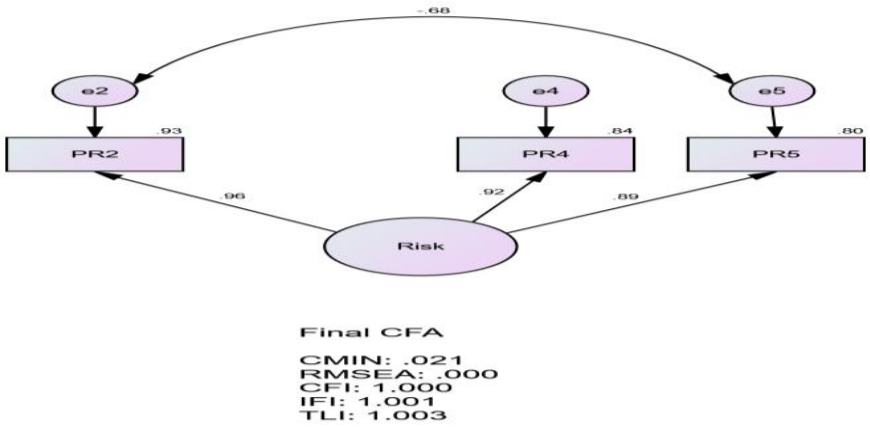


Figure 4.35: Final CFA of Risk (PR)

Table 4.34: Goodness of Fit Indices for Risk (PR)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	19.385	2.583
RMSEA	≤ .08	0.212	0.063
CFI	≥ .90	0.964	0.996
IFI	≥ .90	0.964	0.996
TLI	≥ .90	0.927	0.99

10. Behavioral Intention to Use

Figure 4.36 depicts the measurement model for behavioural intention to use. The goodness of fit demonstrated excellent fit (CMIN = 1.085, RMSEA = 0.015, CFI = 1.00, IFI = 1.00, and TLI = 1.00). Hence, no modifications were needed.

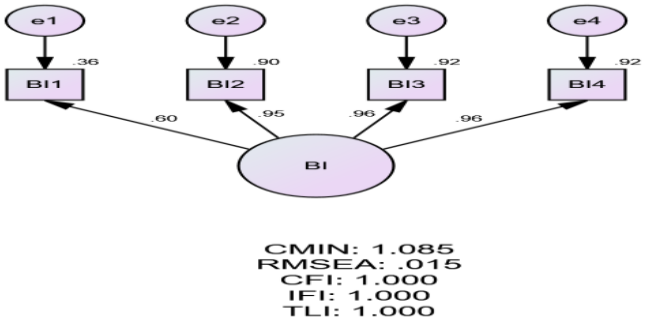


Figure 4.36: Initial CFA of Behavioral Intention to Use (BI)

There are no modification indices for this construct because it was not necessary to make any modifications.

The final loadings were the same as the initial loadings since no modifications were made. The loading range was .60–.95, as shown in Table 4.35.

Table 4.35: Factor Loading of Behavioral Intention to Use (BI)

Indicator	Initial CFA	Final CFA	Remark
BI1	0.60	0.60	Proceed
BI2	0.95	0.95	Proceed
BI3	0.96	0.96	Proceed
BI4	0.96	0.96	Proceed

The final model is depicted in Figure 4.37.

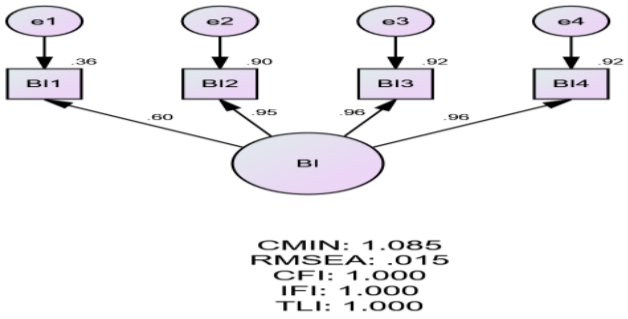


Figure 4.37: Final CFA of Behavioral Intention to Use (BI)

The goodness of fit in the final CFA for behavioural intention demonstrated excellent fit (CMIN = 1.085, RMSEA = 0.015, CFI = 1.00, IFI = 1.00, and TLI = 1.00), as shown in Table 4.36.

Table 4.36: Goodness of Fit Indices for Behavioral Intention to Use (BI)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	1.085	1.085
RMSEA	≤ .08	0.015	0.015
CFI	≥ .90	1.000	1.000
IFI	≥ .90	1.000	1.000
TLI	≥ .90	1.000	1.000

11. Usage

Usage (UB) was measured using four indicators. The results for the measurement model demonstrated poor fit (CMIN = 8.185, RMSEA = 0.134, CFI = 0.994, IFI = 0.994, TLI = 0.981), as shown in Figure 4.38.

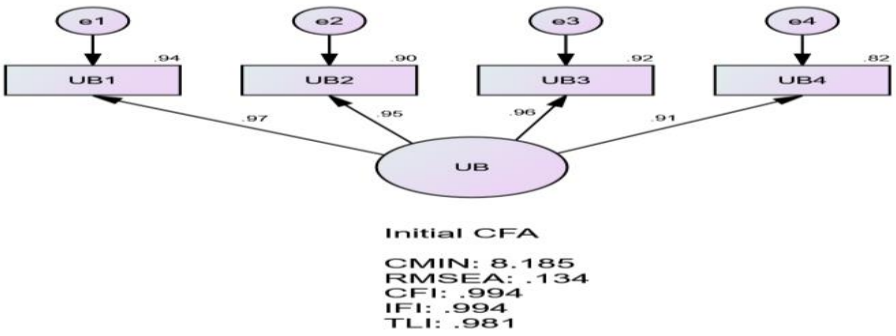


Figure 4.38: Initial CFA of Usage (UB)

Table 4.37 shows the modification indices for usage. The results revealed that e2 and e4 were correlated (10.296).

Table 4.37: Modification Indices of Usage (UB)

Usage			M.I.	Par Change
e2	**<-->**	**e4**	**10.296**	0.131
e2	<-->	e3	4.544	-0.064
e1	<-->	e4	6.799	-0.096

Table 4.38 presents a comparison between the initial and final CFA for usage. The ranges of factor loadings were .907–.969 for the initial CFA and .906–.975 for the final CFA.

Table 4.38: Factor Loading of Usage (UB)

Indicator	Initial CFA	Final CFA	Remark
UB1	0.969	0.975	Proceed
UB2	0.949	0.947	Proceed
UB3	0.958	0.963	Proceed
UB4	0.907	0.906	Proceed

The final CFA demonstrated acceptable fit, as shown in Figure 4.39.

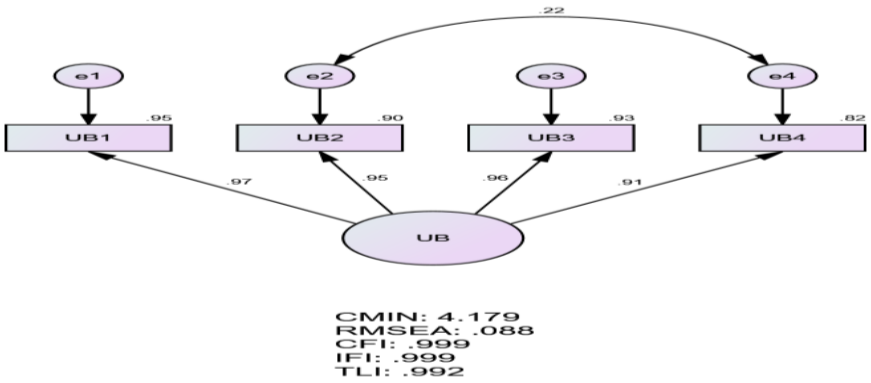


Figure 4.39: Final CFA of Usage (UB)

Table 4.39 shows an improvement in the goodness of fit indices for usage in the final CFA (CMIN = 4.179, RMSEA = 0.088, CFI = 0.999, IFI = 0.999, and TLI = 0.992).

Table 4.39: Goodness of Fit Indices for Usage (UB)

Fit Indices	Recommended Threshold	Initial CFA	Final CFA
CMIN	≥ 2 and ≤ 5	8.185	4.179
RMSEA	≤ .08	0.134	0.088
CFI	≥ .90	0.994	0.999
IFI	≥ .90	0.994	0.999
TLI	≥ .90	0.981	0.992

Based on the result of CFA, unidimensionality is reached in which all measuring items that scored lower than the ideal value of 0.6 were deleted in accordance to the assertation made by (Zainudin Awang, 2015b). Table 4.40 demonstrates the summaries of CFA of latent variables involved in this study:

Table 4.40: Summaries of CFA of Latent Variables

Item	Coding	Loading	Status
Performance Expectancy			
The use of Online Food Delivery system is an efficient way to order my food.	PE1	Higher MI	Deleted
The use of Online Food Delivery system makes my life easier.	PE2	0.847	Proceed
The use of Online Food Delivery system gives me more chance to complete important tasks.	PE3	0.817	Proceed
The Online Food Delivery system helps me to complete my tasks quickly.	PE4	0.931	Proceed
The use of Online Food Delivery system increases my productivity.	PE5	0.754	Proceed

Table 4.40: Continued

Item	Coding	Loading	Status
Overall, the use of Online Delivery System is a useful way to order food.	PE6	0.792	Proceed
Effort Expectancy			
It is easy for me to learn how to use the Online Food Delivery system.	EE1	0.971	Proceed
I found that it is easy to make the system do the things that I want done.	EE2	Higher MI (7.832)	Deleted
My interaction with the Online Food Delivery system is clear and easy to understand.	EE3	0.908	Proceed
I found the system to be flexible to interact with.	EE4	0.906	Proceed
It is easy for me to become skilled in using the Online Food Delivery system.	EE5	0.913	Proceed
I found the system easy to use.	EE6	0.923	Proceed
Social influence			
People who are important to me (e.g., family members, close friends, and colleagues) recommend I use food delivery apps.	SF1	0.795	Proceed
People who are important to me think food delivery apps are beneficial.	SF2	0.834	Proceed
People who are important to me think it is a good idea to use food delivery apps.	SF3	0.927	Proceed
People who are important to me support me to use food delivery apps.	SF4	0.87	Proceed

Table 4.40: Continued

Item	Coding	Loading	Status
Facilitating condition			
I have the required resources to use the Online Food Delivery system.	FC1	0.76	Proceed
I have the required knowledge to use the Online Food Delivery system.	FC2	0.87	Proceed
The Online Food Delivery system is compatible with other technologies that I use.	FC3	0.89	Proceed
I can get help from other people when I face difficulties in using the Online Food Delivery system.	FC4	0.72	Proceed
Based on sources, opportunity, and required knowledge to use this system, it is easy and comfortable for me to use this system.	FC5	0.82	Proceed
Hedonic motivation			
Use of the Online Food Delivery system gives joy.	HM1	0.937	Proceed
Use of the Online Food Delivery system is fun.	HM2	0.933	Proceed
Use of the Online Food Delivery system is entertaining.	HM3	0.927	Proceed
Price value			
I can save money by using food delivery apps for purchasing foods by comparing the prices offered at different online stores.	PV1	0.913	Proceed
I like to search for cheap deals at different online stores when I purchase foods through food delivery apps.	PV2	0.826	Proceed
I believe online food delivery apps offer better value for my money.	PV3	0.847	Proceed

Table 4.40: Continued

Item	Coding	Loading	Status
Habit			
Use of the Online Food Delivery system has already become my habit.	HA1	0.792	Proceed
I am addicted to the use of Online Food Delivery System.	HA2	0.879	Proceed
I must use the Online Food Delivery system.	HA3	0.858	Proceed
Use of the Online Food Delivery system has become customary for me.	HA4	0.863	Proceed
Trust			
The Online Food Delivery system that I use now fulfils its promises and commitments.	PT1	0.795	Proceed
The Online Food Delivery System that I use now can be depended on.	PT2	0.834	Proceed
The Online Food Delivery System that I use now cares about its customers.	PT3	0.927	Proceed
The Online Food Delivery System that I use now is capable of performing its job.	PT4	0.87	Proceed
The Online Food Delivery System that I use now can be trusted.	PT5	0.903	Proceed

Table 4.40: Continued

Item	Coding	Loading	Status
Risk			
Use of the Online Food Delivery Applications will not cause my personal information to be stolen	PR1	Higher MI (36.369)	Deleted
There is no possibility that using online food delivery applications will below user expectations (foods and beverages ordered process)	PR2	0.963	Proceed
I am confident that the online food delivery applications will perform the functions that were described (foods and beverages ordered process)	PR3	Higher MI (32.654)	Deleted
There no chance that there will be something wrong with the online food delivery applications because it always work properly	PR4	0.918	Proceed
I believe no negative effects from using the Online Food Delivery Applications.	PR5	0.894	Proceed
Behavioral Intention to Use			
I intend to continue using the Online Food Delivery system in the future.	BI1	0.60	Proceed
I can feel that I will be using the Online Food Delivery system in the future.	BI2	0.95	Proceed
I plan to use the Online Food Delivery system in the future.	BI3	0.96	Proceed
I expect that my usage of the Online Food Delivery system will continue in the future.	BI4	0.96	Proceed

Table 4.40: Continued

Item	Coding	Loading	Status
Usage			
I consider myself a regular user of the Online Food Delivery system.	UB1	0.975	Proceed
I prefer to use the Online Food Delivery system when it is available.	UB2	0.947	Proceed
Most of my food orders are made through the Online Food Delivery system.	UB3	0.963	Proceed
I tend to use the Online Food Delivery system at any time that it can be used.	UB4	0.906	Proceed

4.11 Measurement Model

Once CFA has been successfully conducted, the next step is performing SEM. CFA verifies the measurement model, and SEM visualises the path analysis of the relationships among the components (Dash & Paul, 2021). In this study, the SEM approach using the pool measurement model was employed as the analysis technique in order to determine the outcomes. The pool measurement model is a structural model that entails examining the connections between many exogenous and endogenous constructs that were generated based on the hypotheses (Awang, 2015b; Awang et al., 2018; Hair et al., 2014).

The initially model fitness indices indicated a poor fit and modification indices were observed to improve the overall fitness of the model. Modification indices have shown that some of the same error terms needs to be correlated and some new error terms covariances popped up. High value of MI (above 15) indicates there are redundant items in the model (Zainudin Awang, 2015b). Few values were above this cut-off value and thus by correlating

the error terms in each iteration one by one, the model fitness estimates (x2/df=2.693, IFI=0.923, TLI=0.915, CFI=0.923, RMSEA= 0.065) improved significantly and are mostly meeting the standards or are very close to them. If the majority of fit estimates meet the required threshold values, the model will be considered a good fit as it is very difficult to get a perfect fit estimates while analyzing large sample size (Hair et al., 2010). Besides these estimates, all the factor loadings of the items are meeting and even exceeding the required standards. Considering all of the above mentioned factors, the model fulfills the requirements to be called a good fit model for the sample data. Final measurement model of the study as presented in Figure 4.40 provides evidence that the model's construct validity was acceptable, as the fitness indices satisfied all three model-fit criteria (Awang, 2015; Awang et al., 2018). The fitness indexes which reflect the construct validity for the model are assessed in the following Table 4.41.

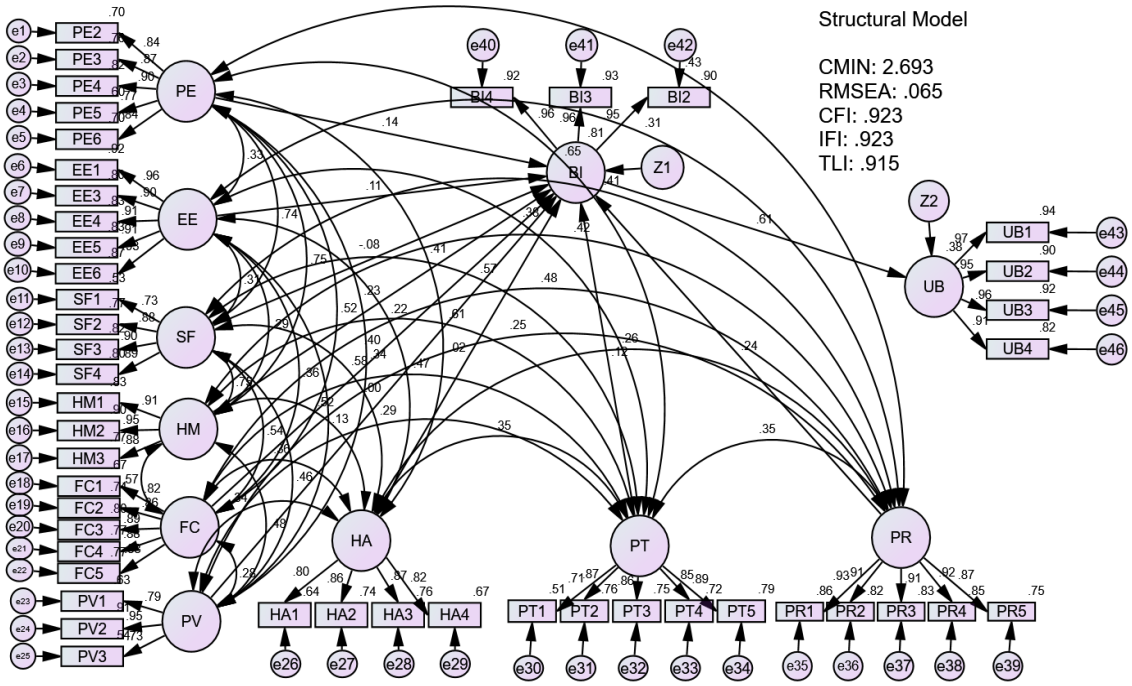


Figure 4.40: The Standardized Path Coefficients between Constructs in the Model

Table 4.41: Fit Indices for Measurement Model (Zainudin Awang, 2015b; Zainudin Awang et al., 2018)

Type	Index	Ideal Threshold Value	Measurement Model Indexed Value	Remarks
Absolute Fit Measures	Root Mean Square Error of Approximation (RMSEA)	< 1.0 still acceptable (the best value is < 0.08)	0.065	Achieved
Incremental Fit Measures	Comparative Fit Index (CFI)	>0.90	0.923	Achieved
	Tucker-Lewis Index (TLI)	>0.90	0.915	Achieved
	Incremental Fit Index (IFI)	> 0.90 or >0.85	0.923	Achieved
Parsimonious Fit Measures	Chi Square/Degree of Freedom (Chisq/df)	<3.0	2.693	Achieved

As shown in Table 4.42, the correlation value between two latent exogenous constructs in this model was less than .85 (Awang, 2015), indicating that the discriminant validity between exogenous constructs was reached. Thus, the model did not face any multicollinearity issue.

Table 4.42: Correlation Value between Exogenous Construct

Construct			Estimate
PE	<-->	EE	.334
EE	<-->	SF	.307
PE	<-->	SF	.742
SF	<-->	FC	.535

Table 4.42: Continued

Construct			Estimate
PE	<-->	FC	.516
FC	<-->	HM	.572
SF	<-->	HM	.753
EE	<-->	HM	.294
PE	<-->	HM	.751
HM	<-->	PV	.477
FC	<-->	PV	.283
SF	<-->	PV	.456
EE	<-->	PV	.128
PE	<-->	PV	.340
PV	<-->	HA	.340
PV	<-->	PT	.288
PV	<-->	PR	.254
PT	<-->	PR	.353
HA	<-->	PT	.345
PE	<-->	HA	.409
PE	<-->	PT	.646
PE	<-->	PR	.433
EE	<-->	HA	.222
EE	<-->	PT	.383
EE	<-->	PR	.310
SF	<-->	HA	.580

Table 4.42: Continued

Construct			Estimate
SF	<-->	PT	.569
SF	<-->	PR	.407
FC	<-->	HA	.357
FC	<-->	PT	.467
FC	<-->	PR	.478
HM	<-->	HA	.521
HA	<-->	PR	.264
HM	<-->	PT	.611
HM	<-->	PR	.416
EE	<-->	FC	.356
PE	<-->	BI	.680
BI	<-->	EE	.469
BI	<-->	SF	.617
BI	<-->	HM	.711
BI	<-->	FC	.775
BI	<-->	PV	.342
BI	<-->	HA	.407
PE	<-->	PT	.646
PE	<-->	PR	.433
EE	<-->	HA	.222
EE	<-->	PT	.383
EE	<-->	PR	.310

Table 4.42: Continued

Construct			Estimate
SF	<-->	HA	.580
SF	<-->	PT	.569
SF	<-->	PR	.407
FC	<-->	HA	.357
FC	<-->	PT	.467
FC	<-->	PR	.478
HM	<-->	HA	.521
HA	<-->	PR	.264
HM	<-->	PT	.611
HM	<-->	PR	.416
EE	<-->	FC	.356
PE	<-->	BI	.680
BI	<-->	EE	.469
BI	<-->	SF	.617
BI	<-->	HM	.711
BI	<-->	FC	.775
BI	<-->	PV	.342
BI	<-->	HA	.407
BI	<-->	PT	.624
BI	<-->	PR	.636
BI	<-->	UB	.606
UB	<-->	EE	.226

Table 4.42: Continued

Construct			Estimate
UB	<-->	SF	.457
UB	<-->	FC	.501
UB	<-->	PV	.289
UB	<-->	HA	.684
UB	<-->	PT	.403
UB	<-->	PR	.391
UB	<-->	HM	.557
PE	<-->	UB	.477

4.11.1 *R*-Squared

R-squared shows the amount of variance explained by the exogenous variable. The findings showed that the *R*-squared of behavioural intention was .806 and usage was .375.

Table 4.43: R Square

Endogenous Variable	Estimate
BI	0.806
UB	0.375

4.12 Composite Reliability

At the initial stage, there were a total of 48 items for all constructs. However, some of the items were deleted because the items failed to achieve the minimum acceptable levels of AVE and composite reliability. This study deleted the items with low outer loadings until the constructs attained the minimum adequate levels of AVE and composite reliability. According to Hair et al. (2014), if an item loaded less than .7, consider deletion only if the

deletion leads to increased AVE or composite reliability. Table 4.44 shows the AVE and composite reliability for the constructs, together with the outer loading of each item in the constructs. Items EE2 and PR1 were deleted. After these items were deleted, this study performed a re-evaluation of the factor model. Table 4.44 shows that after the model re-evaluation, 46 items were retained. All the retained items had outer loadings greater than .4.

Table 4.44: Convergent Validity

Construct	Factor Loading	AVE	CR
Performance expectancy		0.69	0.92
PE2	0.85		
PE3	0.82		
PE4	0.93		
PE5	0.75		
PE6	0.79		
Effort expectancy		0.85	0.97
EE1	0.97		
EE2	**Deleted**		
EE3	0.91		
EE4	0.91		
EE5	0.91		
EE6	0.92		
Social influence		0.6963645	0.90
SF1	0.68		
SF2	0.87		
SF3	0.91		
SF4	0.91		
Facilitating condition		0.7323804	0.92
FC1	0.76		
FC2	0.87		
FC3	0.89		

Table 4.44: Continued

Construct	Factor Loading	AVE	CR
FC4	0.72		
FC5	0.82		
Hedonic motivation		0.87	0.95
HM1	0.94		
HM2	0.93		
HM3	0.93		
Price value		0.91	0.97
PV1	0.91		
PV2	0.83		
PV3	0.85		
Habit		0.73	0.91
HA1	0.79		
HA2	0.88		
HA3	0.86		
HA4	0.86		
Trust		0.70	0.92
PT1	0.77		
PT2	0.84		
PT3	0.87		
PT4	0.86		
PT5	0.88		
Risk		0.57	0.85
PR1	**Deleted**		
PR2	0.672		
PR3	0.745		
PR4	0.854		
PR5	0.862		
Intention To Use		0.77	0.93
BI1	0.6		
BI2	0.95		
BI3	0.961		
BI4	0.96		
Usage		0.92	0.98
UB1	0.975		
UB2	0.947		
UB3	0.963		
UB4	0.906		
FL:Factor Loading CR:Composite Realibility AVE: Average Variance Extracted			

Table 4.45 shows that the values were sufficient to satisfy the criteria for discriminant validity. Therefore, all the constructs met the discriminant validity requirement.

Table 4.45: Discriminant Validity

Construct	PE	EE	SF	FC	HM	PV	HA	PT	PR	BI	UB
PE	**0.83**										
EE	0.33	**0.92**									
SF	0.74	0.30	**0.83**								
FC	0.52	0.35	0.54	**0.86**							
HM	0.75	0.30	0.75	0.57	**0.93**						
PV	0.34	0.13	0.46	0.28	0.48	**0.96**					
HA	0.41	0.22	0.57	0.36	0.52	0.34	**0.85**				
PT	0.65	0.38	0.58	0.47	0.61	0.29	0.34	**0.84**			
PR	0.43	0.31	0.41	0.48	0.42	0.25	0.26	0.35	**0.76**		
BI	0.68	0.61	0.62	0.78	0.71	0.34	0.41	0.62	0.64	**0.88**	
UB	0.68	0.23	0.46	0.50	0.56	0.29	0.84	0.40	0.39	0.61	**0.96**

4.13 Hyphothesis Testing

After determining the structural model and ensuring the validity, the next stage of the study was to conduct the hypothesis testing via SEM by utilising AMOS. A *p*-value of less than .05 indicated that the hypothesis was significant or supported. The value of the regression coefficient showed the effect of an exogenous construct on its corresponding endogenous construct. In this regard, a one-sided arrow represented the causal effect of an exogenous construct on its corresponding endogenous construct (Awang, 2015b; Awang et al., 2018).

4.13.1 H1:

Performance expectancy (PE) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The finding revealed that performance expectancy was not significantly related to behavioural intention to use (b = 0.067, p > .05). Hence, this research hypothesis was not supported, as shown in Table 4.46.

Table 4.46: The Significant Effect of Performance Expectancy (PE) on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	PE	0.18	0.067	2.687	0.007	Not Significant

4.13.2 H2:

Effort expectancy (EE) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The result indicated that effort expectancy was significantly related to behavioural intention to use (b = 0.128, p < .05). Hence, this research hypothesis was supported, as shown in Table 4.47.

Table 4.47: The Significant Effect of Effort Expectancy (EE) on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	EE	0.128	0.033	3.909	0.000	Significant

4.13.3 H3:

Social influence has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The finding showed that social influence was not significantly related to behavioural intention to use (b = −0.078, p > .05). Hence, this research hypothesis was not supported, as shown in Table 4.48.

Table 4.48: The Significant Effect of Social Influence (SF) on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	SF	-0.078	0.052	-1.487	0.137	Not Significant

4.13.4 H4:

Facilitating condition (FC) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The result indicated that facilitating condition was significantly related to behavioural intention to use (b = 0.489, p < .05). Hence, this research hypothesis was supported, as shown in Table 4.49.

Table 4.49: The Significant Effect of Facilitating Condition (FC) on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	FC	0.489	0.045	10.92	0.000	Significant

4.13.5 H5:

Price value (PV) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The result revealed that price value was not significantly related to behavioural intention to use (b = −0.007, p > .05). Hence, this research hypothesis was not supported, as shown in Table 4.50.

Table 4.50: The Significant Effect of Price Value on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	PV	-0.007	0.047	-0.159	0.873	Not Significant

4.13.6 H6:

Hedonic motivation has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The finding revealed that hedonic motivation was significantly related to behavioural intention to use ($b = 0.261$, $p < .05$). Hence, this research hypothesis was supported, as shown in Table 4.51.

Table 4.51: The Significant Effect of Hedonic Motivation on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	HM	0.261	0.059	4.431	0.000	Significant

4.13.7 H7:

Habit (HA) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The result showed that habit was not significantly related to behavioural intention to use ($b = 0.014$, $p > .05$). Hence, this research hypothesis was not supported, as shown in Table 4.52.

Table 4.52: The Significant Effect of Habit on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	HA	0.014	0.027	0.526	0.599	Not Significant

4.13.8 H8:

Trust (PT) has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

As hypothesised, trust was found significant related to intention to use ($b=0.125$, $p<0.05$). Hence, this research hypothesis was supported, as shown in Table 4.53.

Table 4.53: The Significant Effect of Trust on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	PT	0.125	0.038	3.262	0.001	Significant

4.13.9 H9:

Risk has a significant relationship on the behavioural intention to use (BI) on online food delivery applications.

The result presented that risk was significantly related to behavioural intention to use ($b = 0.345$, $p < .05$). Hence, this research hypothesis was supported, as shown in Table 4.54.

Table 4.54: The Significant Effect of Risk on Behavioral Intention to Use

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
BI	→	PR	0.345	0.044	7.767	0.000	Significant

4.13.10 H10:

Behavioral intention to use (BI) has a significant relationship on the online food delivery applications usage.

The result revealed that behavioural intention to use was significantly related to usage ($b = 0.706$, $p < .05$). Hence, this research hypothesis was supported, as shown in Table 4.55.

Table 4.55: The Significant Effect of Behavioral Intention to Use on Usage

Hypotheses			Estimate	S.E.	C.R.	P	Intepretation
UB	→	BI	0.706	0.049	14.453	0.000	Significant

4.13.11a H11a:

Behavioural intention to use (BI) mediates the relationship between performance expectancy (PE) and online food delivery applications usage (UB).

The results revealed the mediating effect of behavioural intention to use on the relationship between performance expectancy and usage. The results for the direct effect of performance expectancy on usage showed a significant effect (b = 0.187, *C.R.* = 2.025, p < .05). The bootstrapping procedure result confirmed that the direct effect of performance expectancy on behavioural intention to use was significant, which also indicated partial mediation (Awang, 2015; Awang et al., 2018). The result for the indirect effect was also statistically significant (b = 0.36, p < .05). The total effect was 0.04. Since the direct effect was significant (p < .05), the study concluded that behavioural intention to use partially mediated the relationship between performance expectancy and usage.

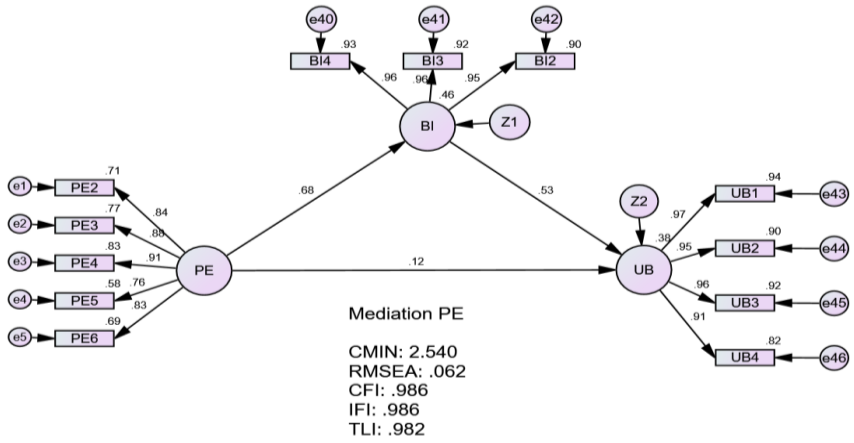


Figure 4.41: AMOS Output Showing the Regression Weights Between Constructs (PE-BI-UB)

Table 4.56: Summary of the Direct and Indirect Effects of Performance Expectancy (PE)

Performance Expectancy			Estimate	S.E.	C.R.	P
BI	→	PE	0.912	0.062	14.59	0.000
UB	→	BI	0.605	0.068	8.907	0.000
UB	→	PE	0.187	0.092	2.025	0.043
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			0.12			
Indirect Effect			0.3604			
Total Effect			0.043248			
Decision			Partial Mediation			

4.13.11b H11b:

Behavioural intention to use (BI) mediates the relationship between effort expectancy (EE) and online food delivery applications usage (UB).

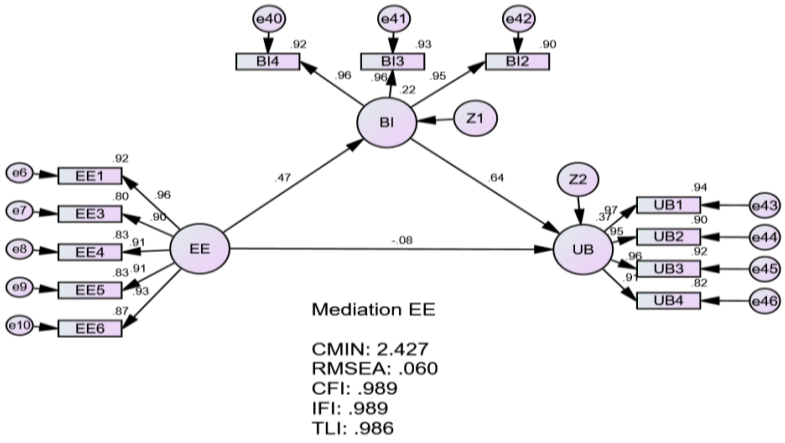


Figure 4.42: AMOS Output Showing the Regression Weights Between Constructs (EE-BI-UB)

The findings revealed the mediating effect of behavioural intention to use on the relationship between effort expectancy and usage. The results for the direct effect of effort expectancy on usage showed that the effect was not significant ($b = -0.102$, $C.R. = -1.62$, $p > .05$). The bootstrapping procedure result confirmed that the direct effect of effort

expectancy on behavioural intention to use was not significant, which also indicated full mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant (b = 0.30, p <. 05). The total effect was 0.22. Since the direct effect was not significant (p > .05), the study concluded that behavioural intention to use fully mediated the relationship between effort expectancy and usage.

Table 4.57: Summary of the Direct and Indirect Effects of Effort Expectancy (EE)

Effort Expectancy			**Estimate**	**S.E.**	**C.R.**	**P**
BI	<---	EE	0.539	0.054	9.969	0.000
UB	<---	BI	0.741	0.056	13.282	0.000
UB	<---	EE	-0.102	0.063	-1.62	0.105
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			-0.08			
Indirect Effect			0.3008			
Total Effect			0.2208			
Decision			Full Mediation			

4.13.11c H11c:

Behavioural intention to use (BI) mediates the relationship between social influence (SF) and online food delivery applications usage (UB).

The results demonstrated the mediating effect of behavioural intention to use on the relationship between social influence and usage. The results for the direct effect of social influence on usage showed a significant effect (b = 0.152, *C.R.* = 2.397, p < .05). The bootstrapping procedure result confirmed that the direct effect of social influence on behavioural intention to use was significant, which also indicated partial mediation (Awang, 2015; Awang et al., 2018). The result for the indirect effect was also statistically significant (b = 0.32, p < .05). The total effect was 0.45. Since the direct effect was significant (p < .05),

the study concluded that behavioural intention to use partially mediated the relationship between social influence and usage.

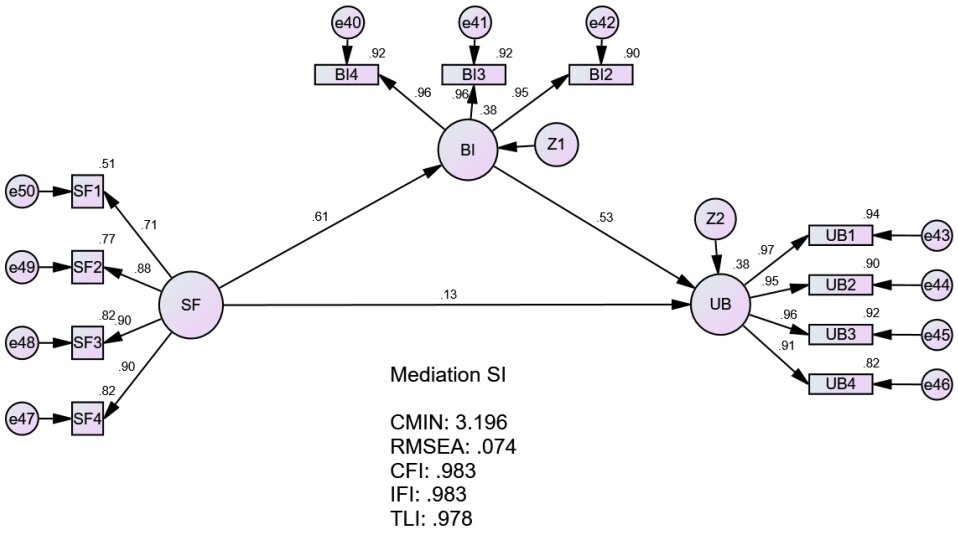


Figure 4.43: AMOS Output Showing the Regression Weights Between Constructs (SF-BI-UB)

Table 4.58: Summary of the Direct and Indirect effects of Social Influence (SF)

Social Influence			**Estimate**	**S.E.**	**C.R.**	**P**
BI	→	SF	0.614	0.045	13.504	0.000
UB	→	BI	0.606	0.063	9.673	0.000
UB	→	SF	0.152	0.063	2.397	0.017
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			0.13			
Indirect Effect			0.3233			
Total Effect			0.4533			
Decision			Partial Mediaton			

4.13.11d H11d:

Behavioural intention to use (BI) mediates the relationship between facilitating condition (FC) and online food delivery applications usage (UB).

The findings demonstrated the mediating effect of behavioural intention on the relationship between facilitating condition and usage. The results for the direct effect of facilitating condition on usage showed that the effect was not significant (b = 0.108, *C.R.* = 1.079, p > .05]. The bootstrapping procedure result confirmed that the direct effect of facilitating condition on behavioural intention to use was not significant, which also indicated full mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant (b = 0.429, p < .05). The total effect was 0.59. Since the direct effect was insignificant (p > .05), the study concluded that behavioural intention to use fully mediated the relationship between facilitating condition and usage.

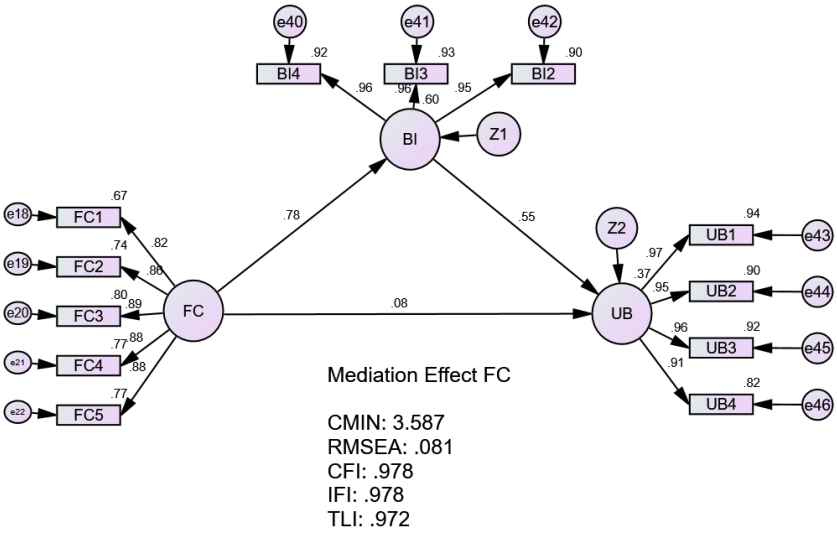


Figure 4.44: AMOS Output Showing the Regression Weights between Constructs (FC-BI-UB)

Table 4.59: Summary of the Direct and Indirect Effects of Facilitating Condition (FC)

Facilitating Condition			Estimate	S.E.	C.R.	P
BI	<---	FC	0.948	0.051	18.621	0.000
UB	<---	BI	0.631	0.081	7.762	0.000
UB	<---	FC	0.108	0.1	1.079	0.281
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			0.08			
Indirect Effect			0.429			
Total Effect			0.509			
Decision			Full Mediaton			

4.13.11e H11e:

Behavioural intention to use (BI) mediates the relationship between price value (PV) and online food delivery applications usage (UB).

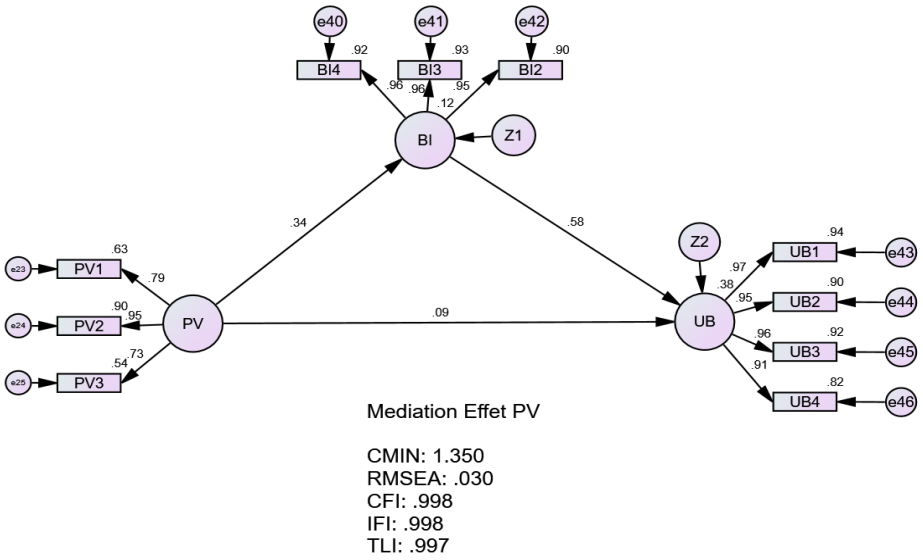


Figure 4.45: AMOS Output Showing the Regression Weights Between Constructs (PV-BI-UB)

The findings demonstrated the mediating effect of behavioural intention on the relationship between price value and usage. The results for the direct effect of price value on

usage showed that the effect was significant (b = 0.162, *C.R.* = 2.027, p < .05). The bootstrapping procedure result confirmed that the direct effect of price value on behavioural intention to use was not significant, which also indicated partial mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant (b = 0.1972, p < .05). The total effect was 0.2872. Since the direct effect was significant (p < .05), the study concluded that behavioural intention to use partially mediated the relationship between price value and usage.

Table 4.60: Summary of the Direct and Indirect Effects of Price Value (PV)

Price Value			**Estimate**	**S.E.**	**C.R.**	**P**
BI	→	PV	0.522	0.08	6.502	0.000
UB	→	BI	0.664	0.052	12.729	0.000
UB	→	PV	0.162	0.08	2.027	0.043
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			0.090			
Indirect Effect			0.1972			
Total Effect			0.2872			
Decision			Partial Mediaton			

4.13.11f H11f:

Behavioural intention to use (BI) mediates the relationship between hedonic motivation (HM) and online food delivery applications usage (UB).

The findings demonstrated the mediating effect of behavioural intention on the relationship between hedonic motivation and usage. The results for the direct effect of hedonic motivation on usage showed a significant effect (b = 0.323, *C.R.* = 4.067, p < .05). The bootstrapping procedure result confirmed that the direct effect of hedonic motivation on

behavioural intention to use was significant, which also indicated partial mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant (b = 0.3053, p < .05). The total effect was 0.5453. Since the direct effect was significant (p < .05), the study concluded that behavioural intention to use partially mediated the relationship between hedonic motivation and usage.

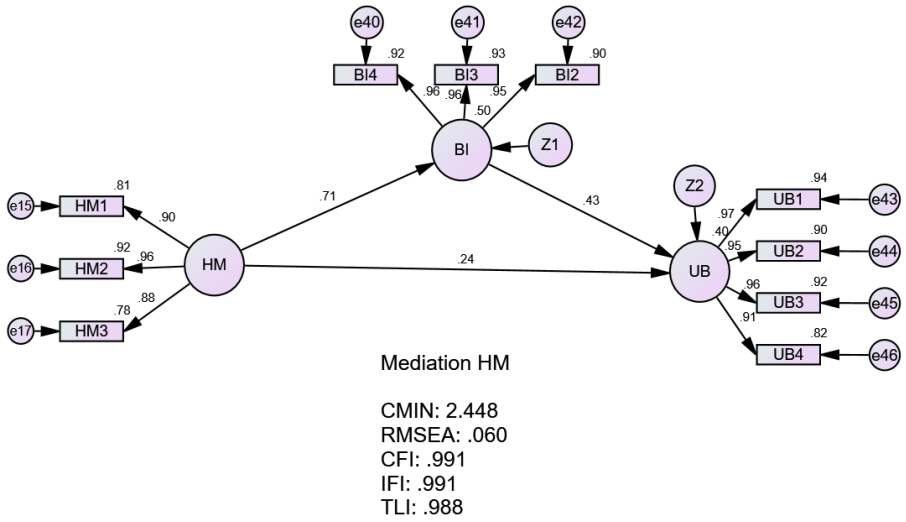


Figure 4.46: AMOS Output Showing the Regression Weights Between Constructs (HM-BI-UB)

Table 4.61: Summary of the Direct and Indirect Effects of Hedonic Motivation (HM)

Hedonic Motivation			**Estimate**	**S.E.**	**C.R.**	**P**
BI	→	HM	0.808	0.049	16.356	0.000
UB	→	BI	0.5	0.069	7.267	0.000
UB	→	HM	0.323	0.08	4.06	0.000
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			0.24			
Indirect Effect			0.3053			
Total Effect			0.5453			
Decision			Partial mediaton			

4.13.11g H11g:

Behavioural intention to use (BI) mediates the relationship between habit (HA) and online food delivery applications usage (UB).

The findings demonstrated the mediating effect of behavioural intention on the relationship between habit and usage. The results for the direct effect of habit on usage showed a significant effect (b = 0.477, *C.R.* = 12.364, $p < .05$). The bootstrapping procedure result confirmed that the direct effect of habit on behavioural intention to use was significant, which also indicated partial mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant (b = 0.1599, $p < .05$). The total effect was 0.6799. Since the direct effect was significant ($p < .05$), the study concluded that behavioural intention to use partially mediated the relationship between habit and usage.

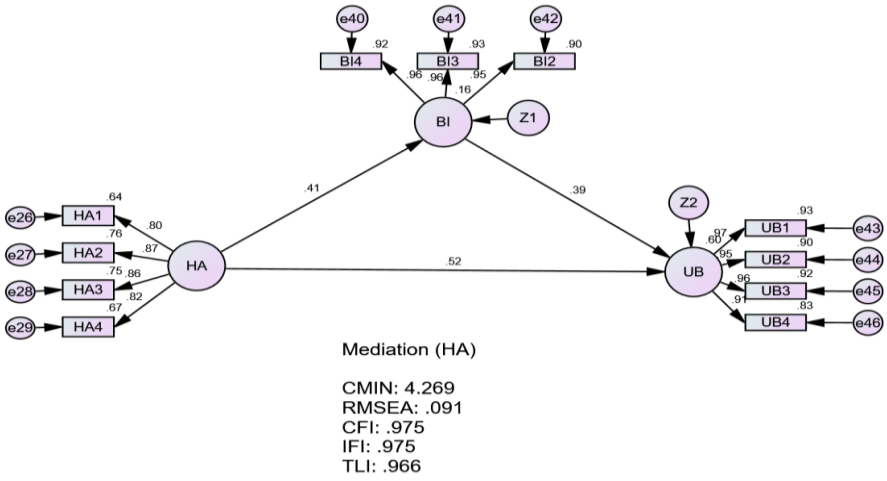


Figure 4.47: AMOS Output Showing the Regression Weights Between Constructs (HA-BI-UB)

Table 4.62: Summary of the Direct and Indirect Effects of Habit (HA)

Habit			Estimate	S.E.	C.R.	P
BI	<---	HA	0.32	0.04	7.975	0.000
UB	<---	BI	0.453	0.045	10.17	0.000
UB	<---	HA	0.477	0.039	12.364	0.000
P-value Unstandardised Indirect Effect			0.01			
Direct Effect			0.52			
Indirect Effect			0.1599			
Total Effect			0.6799			
Decision			Partial mediaton			

4.13.11h H11h:

Behavioural intention to use (BI) mediates the relationship between trust (PT) and online food delivery applications usage (UB).

The findings demonstrated the mediating effect of behavioural intention on the relationship between trust and usage. The results for the direct effect of trust on usage showed that the effect was not significant (b = 0.047, $C.R.$ = 0.707, p > .05). The bootstrapping procedure result confirmed that the direct effect of trust on behavioural intention to use was not significant, which also indicated full mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant (b = 0.3596, p< .05). The total effect was 0.3996. Since the direct effect was not significant (p >. 05), the study concluded that behavioural intention to use fully mediated the relationship between trust and usage.

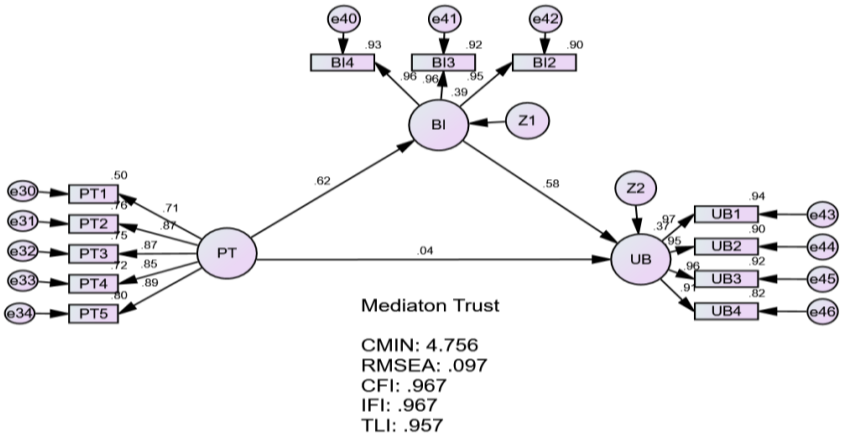


Figure 4.48: AMOS Output Showing the Regression Weights Between Constructs (PT-BI-UB)

Table 4.63: Summary of the Direct and Indirect Effects of Trust (PT)

Habit			Estimate	S.E.	C.R.	P
BI	→	PT	0.641	0.047	13.77	0.000
UB	→	BI	0.67	0.064	10.478	0.000
UB	→	PT	0.047	0.066	0.707	0.48
P-value Unstandardised Indirect Effect			0.002			
Direct Effect			0.04			
Indirect Effect			0.3596			
Total Effect			0.3996			
Decision			Full Mediation			

4.13.11i H11i:

Behavioural intention to use (BI) mediates the relationship between risk (PR) and online food delivery applications usage (UB).

The findings demonstrated the mediating effect of behavioural intention on the relationship between risk and usage. The results for the direct effect of risk on usage showed a not significant effect (b = 0.013, $C.R.$ = 0.143, p > .05). The bootstrapping procedure result confirmed that the direct effect of risk on behavioural intention to use was significant, which

also indicated partial mediation (Awang, 2015; Awang et al., 2018). Further, the result for the indirect effect was statistically significant ($b = 0.384$, $p < .05$). The total effect was 0.394. Since the direct effect was not significant ($p > .05$), the study concluded that behavioural intention to use fully mediated the relationship between risk and usage.

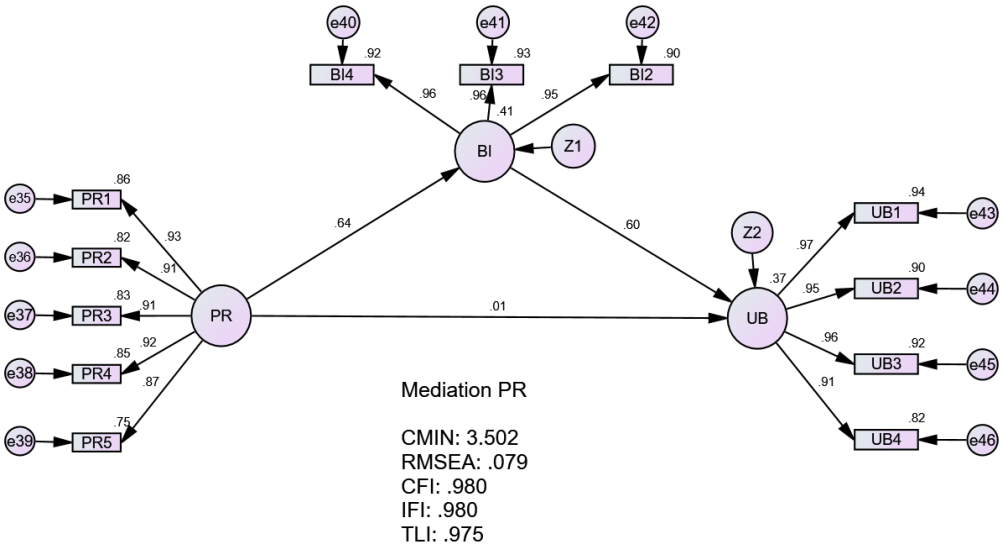


Figure 4.49: AMOS Output Showing the Regression Weights Between Constructs (PR-BI-UB)

Table 4.64: Summary of the Direct and Indirect Effects of Risk (PR)

Risk			**Estimate**	**S.E.**	**C.R.**	**P**
BI	→	PR	0.903	0.064	14.057	0.000
UB	→	BI	0.695	0.065	10.756	0.000
UB	→	PR	0.013	0.091	0.143	0.887
P-value Unstandardized Indirect Effect			0.002			
Direct Effect			0.01			
Indirect Effect			0.384			
Total Effect			0.394			
Decision			Full Mediaton			

4.13.12a H12a:

Age moderates the effect of behavioural intention to use (BI) on online food delivery applications usage (UB).

The moderation effect was significant since the difference between the constrained model and the unconstrained model was greater than 3.84 (99.755). For the 18–29 years age group, the difference in chi square value was 99.755 (1956.922 − 1857.167), and the difference in degree of freedom was 1 (944 − 943).

Table 4.65: Moderation Effect of Age (18–29 Years)

Age (18-29)					
Model Constraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	137	1956.922	944	0	2.073
Saturated model	1081	0	0		
Independence model	46	13841.35	1035	0	13.373
Model unconstraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	138	1857.167	943	0	1.969
Saturated model	1081	0	0		
Independence model	46	9335.821	1035	0	9.02
Difference Chi Square	99.755				
Results	Significant				

Similarly, for the 30–65 years age group, the difference in chi square value was 9.982 (1867.149 − 1857.167), and the difference in degree of freedom was 1. Therefore, age was a significant moderator between behavioural intention and usage.

Table 4.66: Moderation Effect of Age (30–65 Years)

Age (30-65)					
Model Constraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	137	1867.149	944	0	1.978
Saturated model	1081	0	0		
Independence model	46	9335.821	1035	0	9.02
Model	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	138	1857.167	943	0	1.969

Saturated model	1081	0	0		
Independence model	46	9335.821	1035	0	9.02
Difference Chi Square	9.982				
Results	Significant				

The significant results for the 18–29 years old age group (b = 0.728, $C.R.$ = 12.157, $p < .05$) and the 30–65 years old age group (b = 0.712, $C.R$ = 8.042, $p < .05$) indicated the occurrence of partial moderation.

Table 4.67: Summary on the Effects of Age

Age	Path			Estimate	S.E.	C.R.	P
18-29 Years old	UB	<---	BI	0.728	0.06	12.157	0.000
30-65 Years old	UB	<---	BI	0.712	0.089	8.042	0.000

4.13.12b H12b:

Gender moderates the effect of behavioural intention to use (BI) on online food delivery applications usage (UB).

The moderation effect was significant since the difference between the constrained model and the unconstrained model was greater than 3.84 (17.866). For male, the difference in chi square value was 17.866 (1882.796 − 1864.93), and the difference in degree of freedom was 1 = 944 − 943.

Table 4.68: Moderation Effect of Gender (Male)

Male					
Model Constraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	137	1882.796	944	0.000	1.994
Saturated model	1081	0	0		
Independence model	46	7790.743	1035	0.000	7.527

Table 4.68 Continued

Male					
Model Unconstraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	138	1864.93	943	0.000	1.978
Saturated model	1081	0	0		
Independence model	46	7790.743	1035	0.000	7.527
Difference chi square	17.866				
Result	Significant				

Similarly, for female, the difference in chi square was 16.433 (2049.141 − 2032.708), and the difference in degree of freedom was 1. Therefore, gender was a significant moderator between behavioural intention to use and usage.

Table 4.69: Effect of Gender (Female)

Female					
Model constraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	137	2049.141	944	0	2.171
Saturated model	1081	0	0		
Independence model	46	15524.87	1035	0	15
Model unconstraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	138	2032.708	943	0	2.156
Saturated model	1081	0	0		
Independence model	46	15524.87	1035	0	15
Difference chi square	16.433				
Result	Significant				

The significant results for male (b = 0.64, *C.R.* = 8.069, $p < .05$) and female (b = 0.742, *C.R.* = 12.059, $p < .05$) indicated the occurrence of partial moderation.

Table 4.70: Summary of the Effects of Gender

Gender	Path			Estimate	S.E.	C.R.	P
Male	UB	<--	BI	0.64	0.079	8.069	0.000
Female	UB	<--	BI	0.742	0.062	12.059	0.000

4.13.12c H12c:

Experience moderates the effect of behavioural intention to use (BI) on online food delivery applications usage (UB).

The moderation effect was significant since the difference between the constrained model and unconstrained model was greater than 3.84 (12.147). For the 1–2 years of experience group, the difference in the chi square value was 12.147 (1959.373 − 1947.226), and the difference in degree of freedom was 1 (944 − 943).

Table 4.71: Moderation Effect of Experience (1–2 Years)

Experience (1-2 Year)					
Model Constraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	137	1959.373	944	0.00	2.076
Saturated model	1081	0	0		
Independence model	46	12132.37	1035	0.00	11.722
Model Unconstraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	138	1947.226	943	0.000	2.065
Saturated model	1081	0	0		
Independence model	46	12132.37	1035	0.000	11.722
Difference chi square	12.147				
Result	Significant				

Similarly, for the more than 2 years of experience group, the difference in chi square was 25.134 (2200.015 − 2174.881), and the difference in degree of freedom was 1 (944 −

943). Therefore, experience was a significant moderator between behavioural intention and usage.

Table 4.72: Moderation Effect of Experience (>2 Years)

Experience (>2 Year)					
Model Constraint	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	137	2200.015	944	0.0000	2.331
Saturated model	1081	0	0		
Independence model	46	11283.14	1035	0.0000	10.902
Model	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	138	2174.881	943	0.0000	2.306
Saturated model	1081	0	0		
Independence model	46	11283.14	1035	0.0000	10.902
Difference chi square	25.134				
Result	Significant				

The significant results for the 1–2 years of experience group (b = 0.756, *C.R.* = 11.219, $p < .05$) and the more than 2 years of experience group (b = 0.625, *C.R.* = 8.867, $p < .05$) indicated the occurrence of partial moderation.

Table 4.73: Summary of the Moderation Effects of Experience

Exp.	**Path**			**Estimate**	**S.E.**	**C.R.**	**P**
1 to 2	UB	<---	BI	0.756	0.067	11.219	0.000
>2	UB	<---	BI	0.625	0.07	8.867	0.000

4.14 Discussion of Findings

The investigation into the usage of OFDA by users in Sarawak constituted the source of data that was analysed to test the proposed model and the hypothesised relationships. The UTAUT 2 model with two additional constructs (trust and risk) was applied to support the

study framework. The findings for each hypothesis are explained according to the research objectives in the following subsections. Discussions of the findings of previous research accompany these explanations.

4.14.1 Finding 1:

Performance Expectancy has a Significant Relationship on Behavioral Intention to Use OFDA

The result from SEM showed that the relationship between performance expectancy (PE) and behavioural intention to use (BI) was not statistically significant (p>.05). Thus, H1 was not supported. This finding implies that performance expectancy (PE) has no significant effect on consumers' behavioural intention to use (BI) in Sarawak. It is in line with the suggestion of past research that it is imperative to ensure that online food delivery applications are designed to provide users with gratification from using the apps. This will create a need that transforms into a way of life and results in profits for the owners of food delivery businesses with the sustenance of the venture over time.

Based on this result, performance expectancy (PE) is not one of the technology acceptance factors that can help software providers understand how to develop better online food delivery applications, especially in the context of users in Sarawak. It is contradict with the findings of many priour studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; M. L. de Andrade, Stedefeldt, Zanin, Zanetta, & da Cunha, 2021; Jasim et al., 2022; Muangmee et al., 2021; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021; Ramos de Luna et al., 2021). However it is consistent with the findings of many prior studies in the online food delivery context (Muangmee et al., 2021; Rosman et al., 2022; Zanetta et al., 2021a). The findings found that the the lowest performance expectancy was due to a poor sense of the convenience benefits associated with using food

delivery applications. It is because the platform providers unable to provide as much information as possible about the application and deployment of the OFDA to satisfy consumer interest on the usage of OFDA.

Thus, this finding could be attributable to a poor sense of convenience benefits associated with using OFDA. Furthermore, it is critical to ensure that food delivery applications are designed to offer customers with gratification, which will create a need that transforms into a way of life and profits for the owners of food delivery businesses with the sustenance of the venture over time. Therefore, much information on OFDA platforms should be provided about the application and deployment of the food delivery applications to satisfy consumer curiosity and inquisitiveness in order to activate a recommendation status for the business based on previous customer experience.

4.14.2 Finding 2:

Effort Expectancy has a Significant Relationship on Behavioral Intention to Use OFDA

The result from SEM showed that the relationship between effort expectancy (EE) and behavioural intention to use (BI) was statistically significant ($p<.05$). Thus, H2 was supported. This finding implies that there is a significant relationship between effort expectancy with the behavioural intention to use OFDA among users in Sarawak. The empirical findings of these previous research works demonstrated the role of effort expectancy as one of the influencing factors of intention to use online food delivery applications. Their results also showed that effort expectancy had a significant effect on users' intention to use online food delivery for as long as the users perceived that online food delivery applications were effective and user-friendly for searching and placing orders for food and beverages.

This study's result implies that effort expectancy is a one of the technology acceptance factors that help software providers understand how to develop better online food delivery applications. Thus, effort expectancy can boost the behavioural intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context (see Gunden et al., 2020a; Ramos, 2022; Alalwan, 2020a; Pitchay et al., 2021; Palau et al., 2019; Lee et al., 2019; Muangmee et al., 2021; Jasim et al., 2022; Zanetta et al., 2021). Their empirical findings indicated the role of effort expectancy as one of the antecedents of people's intention to use online food delivery services and the users perceived of OFDA as user-friendly for the purposes of looking for and placing orders for food and beverages. Nevertheless, as they gained more acquainted to the technology, the simplicity of use that they perceived became a more important consideration for them. Because of this, the most important factors in deciding whether or not a customer would buy from an online food delivery app were how it was set up and how fast and successfully it could carry out the online food orders that customers placed.

4.14.3 Finding 3:

Sosial Influence has a Significant Relationship on Behavioral Intention to Use OFDA

The result of the SEM showed that there was no statistically significant relationship between social influence (SF) and the behavioural intention to use (BI) (p>.05). Thus, H3 was not supported. This finding implies that social influence has no significant relationship with the behavioural intention to use (BI) OFDA among users in Sarawak.

The result indicates that social influence is not one of the technology acceptance factors that help software providers understand how to develop better online food delivery

applications. In other words, the social influence factor does not contribute to the intention to use online food delivery applications among users in Sarawak. It is contradict with the findings of many priour studies in the online food delivery context (Dat Tran et al., 2021; M. L. de Andrade et al., 2021; Jasim et al., 2022; Muangmee et al., 2021; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021). However it is consistent with the findings of many prior studies in the online food delivery context (S. W. Lee et al., 2019b; Palau-Saumell et al., 2019; Rosman et al., 2022). It was establish that social influence was one of the least powerful drivers of intentions to use. It is because, it led to the idea that the widespread use of OFDA may have had the effect of lessening the importance of the role of social influence. If routine was the most effective motivator of intention to use, then social influence would obviously become less relevant.

4.14.4 Finding 4:

Facilitating Condition has a Significant Relationship on Behavioral Intention to Use OFDA

According to the SEM findings, there was a statistically significant relationship between the facilitating condition and behavioural intention to use (p<.05). Thus, H4 was supported. This means that there is a relationship between the facilitating situation and the behavioural intention to use among users in Sarawak. This result supports the results of previous research, which found that customers heavily emphasised the quality of the applications and their capacity to operate reliably without suffering any interruptions in service or technological problems. For instance, customer services provided in ensuring high-quality services can be offered to users.

This study's result implies that facilitating condition is one of the technology acceptance factors that help software providers understand how to develop better online

applications. It is clear that facilitating condition can boost the intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context (Agarwal & Sahu, 2021; Belanche et al., 2020b; Jasim et al., 2022; Karulkar et al., n.d.; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021; Wen et al., 2022; Zanetta et al., 2021a). They felt that consumers' intentions to use technology would increase if there was an appropriate organisational and technical infrastructure to enable the use of technology. Therefore, the availability of resources like money and time, as well as connectivity to the internet, may all play a role in determining a person's willingness to continue utilising various forms of technology. It implies that when determining the facilitating conditions, the perceived amounts of information and resources accessible for the application of technology were taken into account. For example, customers could download an app that provided them with access to various restaurants' menus, allowing them to order food whenever and wherever they wanted.

4.14.5 Finding 5:

Price Value has a Significant Relationship on Behavioral Intention to Use OFDA

The result of the SEM showed that there was no statistically significant relationship between price value and the behavioural intention to use (p>.05). Thus, H5 was not supported. This finding implies that price value does not have a significant relationship with the behavioural intention to use among users in Sarawak. It is contradict with the findings of many prior studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; Jasim et al., 2022; Ramos, 2022; Zanetta et al., 2021a) . The finding is supported by the study of Lee et al. (2019), it discovered that the intention to use OFDA was not strongly influenced by price value. This was because of the developments in smartphones and ICT

that helped to standardise app implementation to the point where users experienced very few difficulties when using these apps. This is due to the perception of there was no discernible difference in the tangible advantages of placing an order through a phone or smart phone as compared to utilising an app that facilitated delivery, customers did not think there was a price-value gain accessible to them. When customers use the apps that allow them to order meals online, they are not doing it with the intention of lowering their food costs or searching for deals on cheaper options. Instead, they anticipate that their food will be brought to them by a delivery service.

4.14.6 Finding 6:

Hedonic Motivation has a Significant Relationship on Behavioral Intention to Use OFDA

According to the SEM findings, there was a statistically significant relationship between the hedonic motivation and behavioural intention to use (p<.05). Thus, H6 was supported. This finding implies that hedonic motivation significantly affects the behavioural intention to use among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; Chakraborty, 2021; Jasim et al., 2022; Palau-Saumell et al., 2019; Wen et al., 2022; Zanetta et al., 2021a). This was because users were more encouraged to use delivery services once they had the perception that interacting with the new delivery services would result in a pleasant experience. The differences in results may be due to factors such as the type of app tested, the amount of experience one had, or the gender of the participants. Apps that facilitate routine activities, in this scenario, customers place a high value on useful applications.

According to the findings of this study, hedonic motivation appears to be one of the aspects associated with technological acceptance that assists software companies in gaining an understanding of how to create more effective OFDA. It is clear that hedonic motivation can boost the intention to use online food delivery applications among users in Sarawak. It demonstrates that customers believe making orders through online apps is a pleasurable experience and that they appreciate the services that are made available by online food delivery applications. Users highly value the fun features of online meal delivery applications because hedonic motivation is focused on the enjoyment received from using technology. In addition, the finding suggests that marketers should highlight the value of an application in terms of joy, fun, pleasure, or amusement.

4.14.7 Finding 7:

Habit has a Significant Relationship on Behavioral Intention to Use OFDA

According to the findings of the structural equation modelling (SEM), the relationship between behavioural intention to use and habits was not statistically significant (p>.05). Thus, H7 was not supported. This finding implies that habit does not have a significant relationship with the behavioural intention to use among users in Sarawak. It is contradict with the findings of many priour studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; Gunden et al., 2020a; Jasim et al., 2022; Palau-Saumell et al., 2019; Zanetta et al., 2021b). However, the finding is consistent with the result of other studies which demonstrated that the habit factor was demonstrating the undesirable relationship (Rosman et al., 2022). The finding of this study is also supported by the finding of Lee et al. (2019), demonstrating that the typical value of the habit factor implies that there is, a negative relationship. Therefore, respondents' use of delivery apps was not the result of compulsion or habit. This study's result implies that habit is not one of the technology

acceptance factors that can help software providers understand how to develop better online food delivery applications, especially among users in Sarawak.

4.14.8 Finding 8:

Trust has a Significant Relationship on Behavioral Intention to Use OFDA

The result from SEM showed that the relationship between trust and behavioural intention to use was statistically significant ($p<.05$). Thus, H8 was supported. This means that there is a relationship between trust and the behavioural intention to use among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context (Hamid et al., 2022; Jasim et al., 2022; Muangmee et al., 2021; Wen et al., 2022; Zhao & Bacao, 2020). This confirms earlier research that perceived trust was among the factors influencing users' intention to use online food delivery. Their findings provide the users and developers of apps with the technological aspects on which they should concentrate. Insofar as the enhancement of OFDA and their performance are concerned, it would appear that the appropriateness of technology in terms of its fit and perceived trust, as well as its appropriateness in terms of its operational period, should be considered as relevant considerations.

This study's result implies that trust is one of the technology acceptance factors that help software providers understand how to develop better online food delivery applications. It is clear that trust can boost the intention to use OFDA among users in Sarawak. A high level of trust could enhance customers' desire to depend on OFDA to obtain their food daily. Therefore, providers of OFDA should enhance their personalised services and closely monitor the online ordering, production, and delivery processes to guarantee high service quality and reliability in order to earn the trust of customers.

4.14.9 Finding 9:

Risk has a Significant Relationship on Behavioral Intention to Use OFDA

The result from SEM showed that the relationship between risk and behavioural intention to use was statistically significant (p<.05). Thus, H9 was supported. This finding suggests that there is a significant relationship between risk and the behavioural intention to use among Sarawak users. It is consistent with the findings of many prior studies in the online food delivery context (Francioni, Curina, Hegner, & Cioppi, 2022; Gupta & Duggal, 2021; Hwang et al., 2019; Jasim et al., 2022; Poon & Tung, 2022; Wen et al., 2022; Yen, 2022; Zanetta et al., 2021a), they found that the way people thought about risk made them more likely to use and ready to pay more. Consumers' perception of risk was found to have a impact on their intention to use online food delivery services because of a complicated mechanism influencing one's motivation to act in a particular manner. The findings imply that people who use online food delivery services consider various critical risk factors when deciding what motivates them.

The result of this study shows that risk is one of the things that help software providers figure out how to make better apps for online food delivery. It is clear that risk can affect the intention to use OFDA among users in Sarawak. The fact that consumers have any of these concerns at all demonstrates that their desire and intention to use OFDA are being hindered. Consumers tend to be more motivated to engage with OFDAif they perceive that the engagement will have minimal adverse effects on them.

4.14.10 Finding 10:

Behavioral Intention to Use has a Significant Relationship on Usage of OFDA

The finding of SEM showed that there was a statistically significant relationship between behavioural intention to use (BI) and usage (UB) of online food delivery apps

(p<.05). Thus, H10 was supported. This finding implies that behavioural intention to use (BI) has a significant relationship with the usage (UB) of OFDA among users in Sarawak. This result supports the results of previous research that tested the relationship between behavioural intention to use and use behaviour constructs via the expanded and extended UTAUT2 model in the online food delivery context (see Ali, Khalid, Javed, & Islam, 2020; Tran, Rizov, & Rosen, 2021; Ramos et al., 2021; Candra, Ayudina, & Arashi, 2021; Puriwat & Tripopsakul, 2021; Palau et al., 2019; Jasim et al., 2022). The empirical findings of these previous research works showed the existence of a significant relationship between behavioural intention to use and online food delivery use behaviour. This study's result will help software providers understand how to develop better online food delivery applications. It is abundantly obvious that users' intentions to make use of OFDA among those in Sarawak can increase their usage. This finding, which uncovered a considerable relationship between users' behavioural intentions to use and their usage of online food delivery applications, led to the discovery of the aforementioned finding.

4.14.11a Finding 11a:

Behavioral Intention to Use Mediates the Relationship between Performance Expectancy and OFDA Usage

The discussion starts with the investigation into the mediation effect of behavioural intention to use (BI) on the relationship between performance expectancy (PE) and OFDA usage (UB) among users in Sarawak. The performance expectancy is able to directly influence the usage without going through or involving the mediator variable behavioural intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated

the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11a was supported, with a partial mediation role.

4.14.11b Finding 11b:

Behavioral Intention to Use Mediates the Relationship between Effort Expectancy and OFDA Usage

This study also tested the mediation effect of behavioural intention to use (BI) in the relationship between effort expectancy (EE) and usage (UB) of OFDA among users in Sarawak. The finding showed that the effort expectancy is not able to significantly influence the usage without going through the mediator variable of behavioural intention to use OFDA among users in Sarawak. It is contradict with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11b was not supported, with a full mediation role.

4.14.11c Finding 11c:

Behavioral Intention to Use Mediates the Relationship between Social Influence and OFDA Usage

This study examined the mediation effect of behavioural intention to use (BI) in the relationship between social influence (SF) and usage (UB) of OFDA among users in Sarawak. The social influence is able to directly influence the usage without going through

or involving the mediator variable behavioural intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11c was supported, with a partial mediation role.

4.14.11d Finding 11d:

Behavioral Intention to Use Mediates the Relationship between Facilitating Condition and OFDA Usage

This study investigated the mediation effect of behavioural intention to use (BI) in the relationship between facilitating condition (FC) and usage (UB) of OFDA among users in Sarawak. The finding showed that the facilitating condition is not able to significantly influence the usage without going through the mediator variable of behavioural intention to use OFDA among users in Sarawak. It is contradict with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11d was not supported, with a full mediation role.

4.14.11e Finding 11e:

Behavioral Intention to Use Mediates the Relationship between Price Value and OFDA Usage

This study investigated the mediation effect of behavioural intention to use (BI) in the relationship between price value (PV) and usage (UB) of OFDA among users in Sarawak. The price value is able to directly influence the usage without going through or involving the mediator variable behavioural intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11e was supported, with a partial mediation role.

4.14.11f Finding 11f:

Behavioral Intention to Use Mediates the Relationship between Hedonic Motivation and OFDA Usage

This study investigated the mediation effect of behavioural intention to use (UB) on the relationship between hedonic motivation (HM) and usage (UB) of OFDA among users in Sarawak. The hedonic motivation is able to directly influence the usage without going through or involving the mediator variable behavioural intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour.

Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11f was supported, with a partial mediation role.

4.14.11g Finding 11g:

Behavioral Intention to Use Mediates the Relationship between Habit and OFDA Usage

This study investigated the mediation effect of behavioural intention to use (BI) on the relationship between habit (HA) and usage (UB) of OFDA among users in Sarawak. The habit is able to directly influence the usage without going through or involving the mediator variable behavioural intention to use online food delivery applications among users in Sarawak. It is consistent with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11g was supported, with a partial mediation role.

4.14.11h Finding 11h:

Behavioral Intention to Use Mediates the Relationship between Trust and OFDA Usage

This study investigated the mediation effect of behavioural intention to use (BI) on the relationship between trust (PT) and usage (UB) of OFDA among users in Sarawak. The finding showed that the trust is not able to significantly influence the usage without going through the mediator variable of behavioural intention to use OFDA among users in Sarawak. It is contradict with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention

significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11h was not supported, with a full mediation role.

4.14.11i Finding 11i:

Behavioral Intention to Use Mediates the Relationship between Risk and OFDA Usage

This study investigated the mediation effect of behavioural intention to use (BI) on the relationship between risk (PR) and usage (UB) of OFDA among users in Sarawak. The finding showed that the risk is not able to significantly influence the usage without going through the mediator variable of behavioural intention to use OFDA among users in Sarawak. It is contradict with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. Thus, H11i was not supported, with a full mediation role.

4.14.12a Finding 12a:

Age Moderates the Effect of Behavioral Intention to Use on OFDA Usage

Age moderated the relationship between behavioural intention to use (BI) and OFDA usage (UB). This study demonstrated that if age was high (low), the behavioural intention to use mattered less (more) as a moderator between behavioural intention to use and usage. The use and adoption of any internet-based technological product, including food delivery apps, was found to be influenced by these demographic factors (Kumar & Shah, 2021). Thus, H12a was supported, with a partial moderation role.

4.14.12b Finding 12b:

Gender Moderates the Effect of Behavioral Intention to Use on OFDA Usage

Gender moderated the relationship between behavioural intention to use (BI) and OFDA usage (UB). This study demonstrated that male and female users has a significant relationship to moderate between behavioural intention to use and usage. The use and adoption of any internet-based technological product, including food delivery apps, was found to be influenced by these demographic factors (Kumar & Shah, 2021). Thus, H12b was supported, with a partial moderation role.

4.14.12c Finding 12c:

Experience Moderates the Effect of Behavioral Intention to Use on OFDA Usage

Experience moderated the relationship between behavioural intention to use (BI) and OFDA usage (UB). This study demonstrated that if experience in online food delivery applications was high (low), behavioural intention to use mattered less (more) as a mediator between behavioural intention to use and usage. The use and adoption of any internet-based technological product, including food delivery apps, was found to be influenced by these demographic factors (Kumar & Shah, 2021). Thus, H12c was supported, with a partial moderation role.

4.15 Summary of Hypothesis Testing

Table 4.74 presents the rundown of the hypotheses of the investigation.

Table 4.74: Summary of Hyphothesis Testing

Hypothesis		Results
H1	Performance expectancy has a significant relationship on the behavioural intention to use on online food delivery applications.	Not Supported
H2	Effort expectancy has a significant relationship on the behavioural intention to use online food delivery applications	Supported

Table 4.74: Continued

Hypothesis		Results
H3	Social influence has a significant relationship on the behavioural intention to use online food delivery applications	Not Supported
H4	Facilitating condition has a significant relationship on the behavioural intention to use online food delivery applications	Supported
H5	Hedonic motivation has a significant relationship on the behavioural intention to use online food delivery applications	Supported
H6	Price value has a significant relationship on the behavioural intention to use online food delivery applications	Not Supported
H7	Habit has a significant relationship on the behavioural intention to use online food delivery applications	Not Supported
H8	Trust has a significant relationship on the behavioural intention to use online food delivery applications	Supported
H9	Risk has a significant relationship on the behavioural intention to use online food delivery applications	Supported
H10	Behavioral intention to use has a significant relationship on the usage online food delivery applications	Supported
H11a	Behavioral intention to use mediates the relationship between performance expectancy and online food delivery applications usage	Partial mediation
H11b	Behavioral intention to use mediates the relationship between effort expectancy and online food delivery applications usage	Full mediation
H11c	Behavioral intention to use mediates the relationship between facilitating condition and online food delivery applications usage	Partial mediation
H11d	Behavioral intention to use mediates the relationship between social influence and online food delivery applications usage	Full mediation
H11e	Behavioral intention to use mediates the relationship between price value and online food delivery applications usage	Partial mediation
H11f	Behavioral intention to use mediates the relationship between hedonic motivation and online food delivery applications usage	Partial mediation
H11g	Behavioral intention to use mediates the relationship between habit and online food delivery applications usage	Partial mediation
H11h	Behavioral intention to use mediates the relationship between trust and online food delivery applications usage	Full mediation
H11i	Behavioral intention to use mediates the relationship between risk and online food delivery applications usage	Full mediation
H12a	Age moderates the effect of behavioural intention to use on online food delivery applications	Partial Moderation
H12b	Gender moderates the effect of behavioural intention to use on online food delivery applications	Partial Moderation
H12c	Experience moderates the effect of behavioural intention to use on online food delivery applications	Partial Moderation

4.16 Chapter Summary

This chapter presents the findings of the study. Finding for performance expectancy (PE) stated that was not one of the technology acceptance factors that can help software providers understand how to develop better online food delivery applications, especially in the context of users in Sarawak. Meanwhile, this study's result implies that effort expectancy is a one of the technology acceptance factors that help software providers understand how to develop better online food delivery applications. Thus, effort expectancy can boost the behavioural intention to use online food delivery applications among users in Sarawak. The result indicates that social influence is not one of the technology acceptance factors that help software providers understand how to develop better online food delivery applications. In other words, the social influence factor does not contribute to the intention to use online food delivery applications among users in Sarawak. This finding implies that price value does not have a significant relationship with the behavioural intention to use among users in Sarawak. This is due to the perception of there was no discernible difference in the tangible advantages of placing an order through a phone or smart phone as compared to utilising an app that facilitated delivery, customers did not think there was a price-value gain accessible to them. When customers use the apps that allow them to order meals online, they are not doing it with the intention of lowering their food costs or searching for deals on cheaper options. Instead, they anticipate that their food will be brought to them by a delivery service.

Hedonic motivation appears to be one of the aspects associated with technological acceptance that assists software companies in gaining an understanding of how to create more effective OFDA. It is clear that hedonic motivation can boost the intention to use online food delivery applications among users in Sarawak. It demonstrates that customers believe making orders through online apps is a pleasurable experience and that they appreciate the

services that are made available by online food delivery applications. This finding implies that habit does not have a significant relationship with the behavioural intention to use among users in Sarawak. Therefore, respondents' use of delivery apps was not the result of compulsion or habit. This study's result implies that habit is not one of the technology acceptance factors that can help software providers understand how to develop better online food delivery applications, especially among users in Sarawak. This study's result implies that trust is one of the technology acceptance factors that help software providers understand how to develop better online food delivery applications. It is clear that trust can boost the intention to use OFDA among users in Sarawak. A high level of trust could enhance customers' desire to depend on OFDA to obtain their food daily. Therefore, providers of OFDA should enhance their personalised services and closely monitor the online ordering, production, and delivery processes to guarantee high service quality and reliability in order to earn the trust of customers. The result of this study shows that risk is one of the things that help software providers figure out how to make better apps for online food delivery. It is clear that risk can affect the intention to use OFDA among users in Sarawak. The fact that consumers have any of these concerns at all demonstrates that their desire and intention to use OFDA are being hindered. Consumers tend to be more motivated to engage with OFDA if they perceive that the engagement will have minimal adverse effects on them.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter discusses the investigation discoveries according to the objectives of the study. Henceforth, this chapter focuses on concluding the investigation by recapping the important issues discussed in previous chapters. In this chapter, the discussion centres on the discussion of findings and results. Following this, research contributions are discussed. Finally, limitation of the study for future research and conclusion are outlined.

5.2 Discussion

The following part provides a discussion of the study's objectives and discusses how each objective was met within the scope of the thesis.

5.2.1 To Examine the Relationship between Technology Acceptance Factors and Behavioral Intention to Use OFDA

The first objective of this research is to examine the relationship between technology acceptance factors and behavioral intention to use OFDA. Based on the findings, it showing that technology acceptance factors such as effort expectancy, facilitating condition, hedonic motivation, trust and risk have a significant relationship with behavioral intention to use online food delivery applications (OFDA) among users in Sarawak. Meanwhile, performance expectancy, social influence, habit and price value showed not significant relationship with behavioral intention to use OFDA.

The relationship between effort expectancy was found significant with behavioral intention to use OFDA whereas users in Sarawak perceived that the OFDA platform is easy

to use and user-friendly. It is because the users are able to choose the restaurant, then place an order, decide how they will pay for it, and finally monitor the status of the transaction until the order is delivered. As well as consumers who used an app with little effort were more likely to rate it as useful and buy it. It is because the customers were more likely to adopt OFDA when less effort was required to utilise the applications, since this increased the likelihood that customers would adopt the services. It is consistent with the findings of many prior studies in the online food delivery context (see Gunden et al., 2020a; Ramos, 2022; Alalwan, 2020a; Pitchay et al., 2021; Palau et al., 2019; Lee et al., 2019; Muangmee et al., 2021; Jasim et al., 2022; Zanetta et al., 2021). Their empirical findings indicated the role of effort expectancy as one of the antecedents of people's intention to use online food delivery services. As well as demonstrated that effort expectancy was a powerful predictor and had a significant influence on the intention to use online food delivery, provided that the users perceived of OFDA as user-friendly for the purposes of looking for and placing orders for food and beverages.

Next, there is a significant relationship between facilitating condition and behavioural intention to use OFDA among users in Sarawak due to sufficient information technology infrastructure provided for technology support such as internet connection, technical support or knowledge. This situation will encourage consumers to use the technology. Therefore, when establishing the facilitating conditions, elements like the availability of money and time, as well as knowledge and resources for using technology, could have an impact on one's decision to continue using it. For example, the customer could download an app that gave them access to a variety of restaurants' menus, allowing them to order food whenever and wherever they wanted. It is consistent with the findings of many prior studies in the online food delivery context (Agarwal & Sahu, 2021; Belanche et al.,

2020b; Jasim et al., 2022; Karulkar et al., n.d.; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021; Wen et al., 2022; Zanetta et al., 2021a). These studies demonstrates that the extent to which people believe they will receive assistance and access to relevant resources when they use apps is a critical factor in determining how widely this technology will be adopted and indicating that consumers believed there was technical infrastructure in place to facilitate the use of OFDA.

More over hedonic motivation also influencing the behavioural intention to use OFDA among users in Sarawak. The finding demonstrated that customers believed making orders through online apps was a pleasurable experience and that they appreciated the services provided by online food delivery applications. Users placed a high value on the fun features of online food delivery applications because hedonic motivation is concerned with the enjoyment that may be received from the usage of technology. In addition, the study suggested that marketers highlight the value of an app in terms of joy, fun, pleasure, or amusement. It is consistent with the findings of many prior studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; Chakraborty, 2021; Jasim et al., 2022; Palau-Saumell et al., 2019; Wen et al., 2022; Zanetta et al., 2021a). Hedonic motivation had a positive effect on how customers saw the convenience and usefulness of OFDA. For example, how customers felt about how much fun they were having affected their desire to use mobile online food delivery apps.

Additionally trust also influencing the behavioural intention to use OFDA among users in Sarawak. Notably, finding shown that users' perceived level of trust was one of the elements that influenced their intention to use OFDA in Sarawak. According to the findings of the study, users and owners of applications for online food delivery are provided with

information regarding the components of the overall technology on which they should concentrate their attention. It would appear that the suitability of technology in terms of its fit, perceived trust, and operational period should be examined in order to improve the overall success of online food delivery apps. It is consistent with the findings of many prior studies in the online food delivery context (Hamid et al., 2022; Jasim et al., 2022; Muangmee et al., 2021; Wen et al., 2022; Zhao & Bacao, 2020). Therefore, in order to earn their customers' trust, app providers should improve the personalization of the services they offer and carefully monitor the online ordering, manufacturing, and delivery processes. This will ensure that customers receive services that are of a high quality and can be relied upon.

Finally risk factor also influencing the behavioural intention to use OFDA among users in Sarawak. The most important contribution of the study is pertaining to the suggestion to foodservice companies providing this apps services on how to reduce the perceived risk of their services. The findings imply that users in Sarawak who use online food delivery applications consider a variety of critical risk factors when deciding what motivates them. It is consistent with the findings of many prior studies in the online food delivery context (Francioni, Curina, Hegner, & Cioppi, 2022; Gupta & Duggal, 2021; Hwang et al., 2019; Jasim et al., 2022; Poon & Tung, 2022; Wen et al., 2022; Yen, 2022; Zanetta et al., 2021a). Consumers have a tendency to be more motivated to engage with online food delivery services if they perceive that there will be minimal adverse effects brought on by the engagement. Therefore, it is up to restaurants and operators of online food delivery to managing and mitigating the risks.

Meanwhile, it was discovered that performance expectancy (PE) had not a significant effect on the behavioural intention to use OFDA among users in Sarawak. This could be due

to the difficulties of providing users with accurate, reliable, and detailed information that they would perceive the apps as useful such as the ability to save time, the speed with which a transaction can be completed, and the diversity of purchase options. The current study showed it is critical to ensure that OFDA are designed to offer customers with gratification, which will create a need that transforms into a way of life and profits for the owners of food delivery businesses with the sustenance of the venture over time, especially among users in Sarawak. It is contradict with the findings of many priour studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; M. L. de Andrade et al., 2021; Jasim et al., 2022; Muangmee et al., 2021; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021; Ramos de Luna et al., 2021). However it is consistent with the findings of many prior studies in the online food delivery context (Muangmee et al., 2021; Rosman et al., 2022; Zanetta et al., 2021a). The findings found that the the lowest performance expectancy was due to a poor sense of the convenience benefits associated with using food delivery applications. It is because the platform providers unable to provide as much information as possible about the application and deployment of the OFDA to satisfy consumer interest on the usage of OFDA.

Moreover, social influence factor also showing not influencing the behavioural intention to use OFDA among users in Sarawak. This led to the idea that the widespread use of OFDA may have had the effect of lessening the importance of the role of social influence. If routine was the most effective motivator of intention to use, then social influence would obviously become less relevant. This may have happened due to the normative pressure put forth by reference groups. It is contradict with the findings of many priour studies in the online food delivery context (Dat Tran et al., 2021; M. L. de Andrade et al., 2021; Jasim et al., 2022; Muangmee et al., 2021; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021). However it is consistent with the findings of many prior studies in the online food delivery

context (S. W. Lee et al., 2019b; Palau-Saumell et al., 2019; Rosman et al., 2022). It was establish that social influence was one of the least influential element of intentions to use that consumers did not perceive a price-value advantage because there were no distinctions in the material benefits associated with placing an order via phone/smartphone or delivery applications.

Meanwhile, finding implies that price value does not have a significant relationship with the behavioural intention to use among users in Sarawak. It is contradict with the findings of many prior studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; Jasim et al., 2022; Ramos, 2022; Zanetta et al., 2021a) . The finding is supported by the study of Lee et al. (2019), it discovered that the intention to use OFDA was not strongly influenced by price value. This was because of the developments in smartphones and ICT that helped to standardise app implementation to the point where users experienced very few difficulties when using these apps. This is due to the perception of there was no discernible difference in the tangible advantages of placing an order through a phone or smart phone as compared to utilising an app that facilitated delivery, customers did not think there was a price-value gain accessible to them. That is to say, when people utilise OFDA, they are not aiming to save money or look for offers of low prices. Instead, they simply expect their food to be delivered to them. Lastly, according to the findings of this study, the intention to use OFDA was found to be less important as the habit became stronger. This phenomenon was observed in the major influence that routine has not influenced on the usage of these apps which indicated that habit had an influence on usage but less impact on intentions to use of technology. It is contradict with the findings of many priour studies in the online food delivery context (Agarwal & Sahu, 2021; Alalwan, 2020a; Gunden et al., 2020a; Jasim et al., 2022; Palau-Saumell et al., 2019; Zanetta et al., 2021b). However, the

finding is consistent with the result of other studies which demonstrated that the habit factor was demonstrating the undesirable relationship (Rosman et al., 2022). Therefore, respondents' use of OFDA was not the result of compulsion or habit.

In conclusion, the investigation found that the first objective in this study, which is to examine the relationship between technology acceptance factors (performance expectancy, effort expectancy, social influence, facilitating condition, habit, hedonic motivation, price value, risk and trust) and behavioural intention to use, was achieved.

5.2.2 To Examine the Relationship between Behavioral Intention to Use and Usage of OFDA

The second objective of this research is to examine the relationship between behavioral intention to use and usage of OFDA among users in Sarawak. Based on the findings, it showing that behavioral intention to use online food delivery applications (OFDA) have a strong relationship with usage of OFDA among users in Sarawak. In this context, behavioural intention to use among users in Sarawak can be referred to as a user's propensity to use OFDA or to maintain current level of OFDA use in the perspective of diferent factors or determinants that may impact their usage (Tang et al., 2022). Other study uses customers' stated intentions to predict their usage patterns (Alassafi, 2022). It is due to when a users first encounters a new technology such as OFDA, the process can builds on familiarity. Then, based on the previous findings, it showing that technology acceptance factors such as effort expectancy, facilitating condition, hedonic motivation, trust and risk have a significant relationship with behavioral intention to use online food delivery applications (OFDA) among users in Sarawak might influencing the OFDA usage and became more apparent. It is consistent with the findings of many prior studies in the online food delivery context (Ali, Khalid, Javed, & Islam, 2020; Tran, Rizov, & Rosen, 2021;

Ramos et al., 2021; Candra, Ayudina, & Arashi, 2021; Puriwat & Tripopsakul, 2021; Palau-Saumell et al., 2019; Jasim et al., 2022). Their empirical results revealed a significant relationship between behavioural intention to use and actual online food delivery usage. For instance, social influence had the significant relationship on behavioural intention, followed by trust, personal innovativeness, facilitating conditions, and usefulness, ease of use, hedonic motivation, and price sensitivity. Candra et al., (2021) found that respondents' behavioural intention to purchase through electronic media and the internet influenced the actual actions of the purchasing activity. Such as during pandemic, purchasing activities for food and beverages through online food applications increased significantly which the respondents spending more time and money to shop through online media. Meanwhile, Tran et al., (2021) revealed subjective norms, social isolation, perception of food safety, and food delivery hygiene had a significant association with the behavioural intention to use that might predict customers' continued use of OFDA. In conclusion, the investigation found that the second objective in this study, which is to examine the relationship between behavioural intention to use and OFDA usage, was achieved.

5.2.3 The Mediating Effect of Behavioral Intention to Use OFDA between Technology Acceptance Factors and OFDA Usage

Specifically, the technology acceptance factors had a beneficial effect on the behavioural intention to use of the OFDA. As well as the behavioural intention to use by the users in Sarawak had a significant positive impact on the OFDA usage. Consequently, the fifth research objective of this study, which was to examine whether behavioural intention to use mediates the relationship between technology acceptance factors and OFDA usage. It is important to note here that, to the best of researcher's knowledge, lack of studies have examined the mediating effect of behavioral intention to use behaviour adopting UTAUT 2

framework in online food delivery applications context. Therefore, the conceptual framework provides a new structure to enhance one's understanding of the mediating effect of behavioural intention to use on the relationships between the technology acceptance factors namely performance expectancy, effort expectancy, social influence, facilitating condition, price value, habit, hedonic motivation, trust, risk and OFDA usage. Therefore, this study included behavioural intention to use as a mediator between technology acceptance factors and OFDA usage.

In addition, behavioural intention to use had a significant role in the mediation process, aside from its direct impact on OFDA usage. According to the findings of this study, the behavioural intention to use served as a partial mediator between performance expectancy, social influence, price value, hedonic motivation, habit and OFDA usage. Therefore, the important associations between performance expectancy, social influence, price value, hedonic motivation, habit and OFDA usage within the scope of this study continued to hold firm. However, the level of significance decreased when the behavioural intention to use was introduced as a mediator as the findings showed that behavioural intention to use fully mediated the relationships of effort expectancy, facilitating condition, trust and risk with OFDA usage. Thus, the connections between effort expectancy, facilitating condition, trust and risk as technology acceptance factors and OFDA usage were not accepted. It is consistent with the findings of many prior studies in the online food delivery context of Ifedayo, Ziden, and Ismail,(2021) that expressed that behavioural intention significantly partially mediated the relationship between performance expectancy, effort expectancy, social influence, facilitating conditions, and actual behaviour. Additionally, findings of Osei, Kwateng, and Boateng, (2022) reported intention as the core mediator between intention and behavior. In conclusion, the investigation found that the

third objective in this study, which was to examine the mediation effect of behavioural intention to use on the relationship between technology acceptance factors and OFDA usage, was achieved.

5.2.4 The Moderating Effect of Age, Gender and Experience between Behavioral Intention to Use and OFDA Usage

The final objective of present study was to examine if age, gender and experience can buffer the positive relationship between behavioural intention to use and OFDA usage. It is important to note here that, to the best of researcher's knowledge, the variable of age, gender and experience has never been used in any previous study on UTAUT 2 model has used age, gender and experience as moderators between behavioural intention to use and technology usage. Originally, the moderating effect of age, gender and experience in UTAUT 2 model has used between performance expectancy, effort expectancy, social influence, facilitating condition and behavioural intention to use in different context (Kasilingam & Krishna, 2021; Terblanche & Kidd, 2022). In order to achieve this objective, three hypotheses were formulated to test the interactions of age, gender and experience in a strong and positive relationship between behavioural intention to use and technology usage. Findings of the study revealed support for three hypotheses, more specifically, age, gender and experience successfully moderated the positive relationship between behavioural intention to use and technology usage. This finding is a step forward in the realm of UTAUT 2 model in research because many prior studies failed to find any moderating effects for age, gender and experience between behavioural intention to use and technology usage so this finding is consistent with the findings of many prior studies, stated that demographic variables play an important part in influencing people's behaviours' (Talukder et al., 2023). However, its contradict with study done by Paul & Spiru, (2021) argue that demographic

factors do not influence the adoption and usage of new technology. Nevertheless, there is overwhelming empirical evidence in recent studies showing that demographic factors has an influence on technology adoption (AlHadid et al., 2022; Kasilingam & Krishna, 2021; Talukder et al., 2023).

5.3 Research Contributions

Theoretical, methodological, and practical contributions are discussed to highlight the significance of this study for the overall body of knowledge in the field of marketing studies. The following part of the discussion will continue with an in-depth expansion on the theoretical contributions made by this study, which will be followed by an examination of the study's contributions in the areas of theoretical and practical.

5.3.1 Theoretical Contribution

The results of this study have several critical ramifications to the literature and theories through the use of SEM investigation, where the findings discussed in this chapter have supported 14 out of the 22 hypotheses and the objectives formulated in the first chapter. Brief discussions on the theoretical ramifications are provided in the accompanying sub-sections.

5.3.1.1 Extending the UTAUT2 Model

The primary focus of these theories is investigating how consumers are influenced by a wide variety of socio-psychological and contextual factors in adopting OFDA. It appears that the existing online food delivery literature has, for the most part, ignored a number of potential constructs that can be used in future research. Therefore, to analyse users' behavioural intention to use and usage of OFDA, this study integrated the trust and risk variables with technology usage. Hence, with regard to this investigation, the potential

for assessing the actual usage is an important development for subsequent research. In order to examine users' intention to use of OFDA as proposed by prior studies, this research expanded on and extended UTAUT2 by proposing an extended UTAUT2 model with the additional constructs of trust and risk, which were not considered in previous studies with regard to their capability to help improve the knowledge regarding customers of OFDA.

5.3.1.2 The Model Developed Linking Technology Acceptance Factors, Intention to Use, and Usage of OFDA

The second essential contribution of this investigation is the development of a model that links technology acceptance factors, intention to use, and usage of OFDA in the context of users in Sarawak. Thus, to provide a broad scope by adding structures that fully reflected the unique nature of online food delivery apps, the UTAUT2 theory was adopted as a theoretical foundation for the study. It was determined that the original UTAUT2 model needed some expansion in the form of additional components in order to adequately represent the behaviour of customers who buy food online via a delivery application service.

As Figure 2.5 shows, the exogenous variables in the framework are performance expectancy, effort expectancy, social influence, facilitating condition, price value, hedonic motivation, habit, trust, risk, and behavioural intention to use. The endogenous variable is OFDA usage. The conceptual framework consists of direct and indirect effects. The direct effects occur between users' technology acceptance factors and behavioural intention to use. Another direct effect is between behavioural intention to use and OFDA usage. The indirect effects arise from the mediating role of behavioural intention to use in the relationships between users' technology acceptance factors and usage of OFDA.

Before a moderator is included in a model, the effects of the independent variables on the dependent variable must exist and must be significant. The previous discussion showed the existence of a positive relationship between behavioural intention to use and usage of OFDA. In addition, if behavioural intention to use mediates the relationships between users' technology acceptance factors, risk, trust, and usage of OFDA, then there is a possibility that the moderator will change the strength of the relationships between these factors. For this reason, this study tested the moderating effect of age, gender, and experience between these factors.

5.3.1.3 A Valid Measurement Scale for Technology Acceptance Factors, Intention to Use, and Usage of OFDA

This segment completes the discussion on the estimation approaches and scales applied in the current examination.To begin with, for almost every construct in this investigation, the study applied the comparative estimation approaches from previous literature. A five-point interval scale was used for most of the estimated scales for technology acceptance factors, behavioural intention to use, and usage. However, this study recommends that a 10-point interval scale instead of a five-point interval scale be used to analyse technology acceptance factors, behavioural intention to use, and usage of OFDA applications using the SEM approach. Thus, this investigation has improved the empirical knowledge on the measurement scale for technology acceptance factors, behavioural intention to use, and OFDA usage, particularly in the Sarawak setting.

5.3.1.4 The Mediating Role of Behavioural Intention to Use in the Relationship between Technology Acceptance Factors and Usage of OFDA

This study was the first endeavour to research the associations between technology acceptance factors, behavioural intention to use, and usage of online food delivery

applications simultaneously among the users in Sarawak by using SEM. Additionally, lack of studies have examined the intervening role of behavioural intention to use in the links between technology acceptance factors and usage of OFDA.

Therefore, this current examination connotes the importance of behavioural intention to use as an intervening factor in the links between technology acceptance factors and usage of online food delivery applications. This examination filled the gaps in past investigations on online food delivery use behaviour that reported, based on their empirical findings, the existence of significant relationships between users' technology acceptance factors and behavioural intention to use OFDA. However to date, there is no known study that has discussed the mediating role of behavioural intention to use in the relationships between users' technology acceptance factors and OFDA usage.

Most definitely, this study's model was created to determine the relationships between technology acceptance factors, behavioural intention to use, and usage of online food delivery applications, particularly among the users in Sarawak. The outcome has added to new discoveries regarding the intervening role of behavioural intention to use, which has never been tested before. Third, the model was tested among users in Sarawak for the first time. For these reasons, this investigation fills the gaps in literature.

5.3.1.5 The Moderating Roles of Age, Gender, and Experience in the Relationship between Behavioural Intention to Use and OFDAUsage

In the previous studies, most of the demographic variables were tested as control variables and moderator variables to assess the significant impact of the independent variables and ensure the validity of the findings. Therefore, in this study, the demographic factors were tested as a moderating variables in order to analyse their effects on the link

between behavioural intention to use and use behaviour. This is because the use and adoption of any internet-based technological product, including food delivery apps, has been found to be impacted by these demographic factors (Kumar & Shah, 2021).

Considering the nature of this study, the positivism paradigm was deemed to be the most appropriate approach. This study was designed to use a survey-based data collection tool, building on a theoretically supported conceptual model. This approach and methodology justify the researcher's decision on the paradigm and the sampling method in order to ensure the sanctity and parsimony of the proposed conceptual model. Moreover, the assessment of the hypothesised relationships between technology acceptance factors, behavioural intention to use, and usage of online food delivery applications with two additional constructs in the UTAUT2 model marks a new design approach by extending the UTAUT2 model in the OFDA context. Thus far, this study is the only recent attempt to examine the relationships between technology acceptance factors, behavioural intention to use, and OFDA usage. The unique research design and approach of this study provide empirical evidence of the importance of technology acceptance factors and behavioural intention to use in the context of usage of OFDA among users in Sarawak.

5.3.2 Practical Contribution

Moving from theory to practice, this study emphasises that designers and developers must recognise the importance of maintaining the high quality of all food delivery apps. The actual and real-world effects or applications that stem from the research's findings, ideas, or discoveries are referred to as a practical contribution. It involves taking theoretical ideas and turning them into results that can be used by a variety of stakeholders, such as service providers and policymakers.

5.3.2.1 Implication for Service Providers

Online food delivery applications with access to real-time location-based data have become an essential platform to connect individuals and food industry effectively. At a personal level, users would find the apps a convenient and popular platform to choose and order food from a large variety of restaurants in the comfort of their own homes. From the managerial point of view, the growing trend in food delivery and ordering apps has allowed more business opportunities among the food joints. Food delivery applications, such as Grab Food, Food Panda, and others platforms, serve a broader target audience, increasing the exposure of the brand name for any food and beverage business. Hence, there has been a significant increase in restaurants, including small businesses that subscribe to third-party food delivery services and applications in marketing the products and communicate with consumers. This service platform has become part of society's necessity, which yields the desired outcome of increased revenue.

Since users want to order food conveniently through the apps, the service providers should establish promotions to attract consumers and use the app attributes as a medium. This procedure allows immediate communication between apps and users, such as obtaining product information for decision making about using the service and facilitating processes such as payment and food delivery. In addition, if users find that apps are suitable, either for ordering or receiving food, consumers will decide to use them. Moreover, factors of social influence such as friends, close friends, and parents, will affect consideration before ordering via the apps or making an immediate purchase decision. Users who order food or buy goods through online apps do not choose them without seeing the actual products. If an incentive stimulates their demand, sharing information or advertising products through social

influence about offering the food to users may build consumer attention, or if they depend on these groups, an immediate purchase decision may be possible.

Moreover, service providers or food industry interested in the target market with low involvement in technology would be suggested to concentrate on a strategic solution such as communication with their users. For example, needs to design an advertising strategy by focusing on minimizing the uncertainty level among those users who have high insecurity and discomfort levels with OFDA. In this way, they can influence the optimistic and innovative users along with insecure and discomfort consumers by offering potential benefits to enhance the usage frequency level of OFDA among targeted users. Furthermore, risk and trust is considered the most significant driver to convert an insecure buyer into an optimistic buyer. OFDA service provider should provide efficient, secure, straightforward, and easy-to-use payment procedures to reduce the buyers' insecurity level and to convert their negative intentions into positive readiness to use OFDA services. Moreover, the findings of the current study could also be beneficial for startups, service providers intending to be involved in the food industry, government bodies, policymakers, advertisers, and marketers. They can use the study findings to build a better relationship with users. Therefore, this study helps application developers, especially those involved in developing OFDA, gain a better understanding of the factors influencing the usage of OFDA. It is essential to acknowledge that online food delivery applications are among the distribution channels used by restaurants to satisfy the needs of their customers, besides encouraging and enhancing the level of users' engagement. Therefore, the developers of OFDA can focus on increasing the quality of their online platforms at the same time.

5.3.2.2 Implication for Policymakers

The rise of online food delivery applications in Sarawak, Malaysia, has brought about various implications for different stakeholders, including consumers, local businesses, delivery drivers, and the overall economy. Increased accessibility of OFDA platforms have expanded the reach of local restaurants, making their cuisine accessible to a broader audience. This is particularly beneficial for smaller eateries that may have not the resources for extensive marketing. Support for local businesses in Sarawak can leverage online platforms to reach a larger customer base without the need for significant investments in marketing and delivery infrastructure. Online food delivery applications provide consumers in Sarawak with convenient access to a wide variety of food options. This convenience is particularly valuable for individuals with busy lifestyles or those who prefer the ease of ordering food from the comfort of their homes. Local restaurants, especially smaller establishments, have the opportunity to expand their customer base through online platforms. This can lead to increased sales and visibility for businesses that may not have the resources for extensive marketing. The growth of online food delivery services in Sarawak contributes to the creation of employment opportunities, particularly for delivery drivers and individuals involved in managing and fulfilling online orders. The use of online food delivery applications encourages the adoption of digital technology among businesses and consumers in Sarawak, contributing to technological advancement and digital literacy. While online food delivery platforms can increase competition and provide consumers with more choices, there are concerns about the potential dominance of large platforms and the impact on smaller local players. The online food delivery sector contributes to the local economy through job creation, increased sales for restaurants, and potential investments in technology infrastructure. Traditional dine-in restaurants may face challenges as more consumers opt

for food delivery. This can impact the atmosphere of local eateries and potentially lead to changes in business models. The increased demand for food delivery may contribute to higher traffic, especially in urban areas, and environmental concerns related to delivery vehicle emissions and packaging waste. Policymakers in Sarawak need to carefully consider regulations that balance the benefits and challenges posed by online food delivery applications. This includes addressing issues such as commission fees, fair business practices, and worker rights. Online food delivery platforms have the opportunity to engage with local communities through promotions, partnerships, and support for local initiatives, contributing to a sense of community and collaboration. Sarawak's policymakers need to stay attuned to these implications, considering both the positive and challenging aspects, as they develop and adapt regulations to ensure a fair and sustainable ecosystem for online food delivery applications in the region. Regular assessments and feedback mechanisms can help address emerging issues and optimize the benefits of these services for all stakeholders.

The usage of OFDA encourages the adoption of digital technology among both businesses and consumers, contributing to the overall technological development of Sarawak. As well as, the adoption of OFDA allows restaurants in Sarawak to adapt to changing consumers behaviours, including the increasing demand for digital and contactless services. While OFDA offer various benefits, it’s essential to balance their growth with considerations for fair nosiness practices, sustainability and the impact on traditional dining establishment. Policy makers and industry stakesholders should work together to create a regulartory enviromnment that ensures the positive contributions of these platforms while addressing potential challenges. A better understanding of the factors influencing the usage of OFDA among users is important to the policymakers and stakeholders in Sarawak. New applications for online food delivery are not only appearing in Sarawak but also making a

contribution to the digital economy of the state. This development is in line with the digital policy that seeks to ensure the state keeps up with technological advancements where the Sarawak Digital Economy Strategy has been formulated with the aim of achieving a high-income status for the state through digital transformation.

5.3.2.3 Implication for Academicians

This study examined the relationships between technology acceptance factors and intention to use OFDA usage among users in Sarawak. It also investigated the relationship of behavioural intention to use and the usage of OFDA in the aforesaid context. This study's significance lies in the original contribution explicitly made by investigating the mediating effect of behavioural intention to use in the relationships between technology acceptance factors and OFDA usage among users in Sarawak. This study also investigated the moderating effect of demographic factors, namely age, gender, and experience, in the relationship between behavioral intention to use and OFDA usage among users in Sarawak.

Moreover, this study contributes to the existing literature by examining the relationship between technology acceptance factors and behavioural intention to use, as well as the relationship between behavioural intention to use and OFDA usage. Moreover, investigating the mediating effect of behavioural intention to use in the relationships between technology acceptance factors and usage, and investigating the moderating effect in the relationship between behavioural intention to use and OFDA usage in Sarawak. Lastly, the findings from this study address the literature gap in the online food delivery application context and add a proposed framework to the knowledge base. This framework could provide an empirical evidence of the relationship between technology acceptance factors and usage of OFDA among users in Sarawak.

5.4 Limitations of the Study

This study has some limitations that can be turned to opportunities for future research.

5.4.1 Investigation in Different Contexts

Due to the limited resources, the scope of the data collection for this research was limited to the Sarawak state only. Therefore, future research can look at other regions in Malaysia or perform a comparative analysis of respondents from different socio-economic backgrounds.

5.4.2 Investigation of More Diverse Factors

This study only examined specified factors such as performance expectancy, effort expectancy, social influence, facilitating condition, price value, hedonic motivation, habit, trust, and risk concerning their relationship on the behavioural intention to use and the usage of OFDA. This study has examined new relationships in determining the behavioural intention to use and OFDA usage. More exploratory studies need to be conducted to explore the technology acceptance factors that influence behavioural intention to use and OFDA usage. Future researchers are suggested to investigate other associated factors which could not be included in this study due to resource constraints and time limitations. In addition, future studies can explore the roles of some new constructs to advance the understanding of technology acceptance factors.

5.4.3 Longitudinal Study in Future Research

Another research direction for future researchers is to conduct a longitudinal study to analyse technology usage behaviour at a longer time duration. Since human behaviour and

intention may change over time, a longitudinal study spanning a period of 5 years with an interval of 1 year each may reveal the extant of technology usage behaviour in individuals. It is expected that a longitudinal study by future researchers can enhance the understanding of technology usage behaviour besides overcoming the limitations of this study.

5.5 Conclusion

This study contributes both to theoretical and practical research. From a theoretical perspective, this study added two additional determinants: trust and risk, into the UTAUT2 model. Furthermore, by adding these two determinants, it is also confirmed that both trust and risk contribute to behavioural intention to use and OFDA usage among users in Sarawak. The study also contributes to the extant body of literature by empirically providing evidence for behavioural intention to use served as a partial mediator between performance expectancy, social influence, price value, hedonic motivation, habit and OFDA usage. However, the level of significance decreased when the behavioural intention to use was introduced as a mediator as the findings showed that behavioural intention to use fully mediated the relationships of effort expectancy, facilitating condition, trust and risk with OFDA usage. Finally, findings of the study also revealed support for three hypotheses, more specifically, age, gender and experience successfully moderated the positive relationship between behavioural intention to use and technology usage. Thus, this study also contributes to online food delivery applications and the framework given in this model can be used as a foundation for future research on online food delivery applications especially in Sarawak context.

From a practical perspective, the service providers that offered online food delivery applications services need to understand the importance of performance expectancy, effort

expectancy, social influence, facilitating condition, habit, price value, hedonic motivation, trust and risk to users, especially if they want to encourage users to use OFDA in Sarawak. The usage of OFDA encourages the adoption of digital technology among both businesses and consumers, contributing to the overall technological development of Sarawak. As well as, the adoption of OFDA allows restaurants in Sarawak to adapt to changing consumers behaviours, including the increasing demand for digital and contactless services. While OFDA offer various benefits, it's essential to balance their growth with considerations for fair nosiness practices, sustainability and the impact on traditional dining establishment. Moreover, policy makers and industry stakesholders should work together to create a regulartory environtment that ensures the positive contributions of these platforms while addressing potential challenges. A better understanding of the factors influencing the usage of OFDA among users is important to the policymakers and stakeholders in Sarawak. New applications for online food delivery are not only appearing in Sarawak but also making a contribution to the digital economy of the state. This development is in line with the digital policy that seeks to ensure the state keeps up with technological advancements where the Sarawak Digital Economy Strategy has been formulated with the aim of achieving a high-income status for the state through digital transformation.

Finally, the focus of this study is constrained in certain aspects; due to the limited resources, the scope of the data collection for this research was limited to the Sarawak state only. Therefore, future research can look at other regions in Malaysia or perform a comparative analysis of respondents from different socio-economic backgrounds. Other than that, more exploratory studies need to be conducted to explore the technology acceptance factors that influence behavioural intention to use and OFDA usage. Future researchers are suggested to investigate other associated factors which could not be included in this study

due to resource constraints and time limitations. In addition, future studies can explore the roles of some new constructs to advance the understanding of technology acceptance factors. Lastly, since human behaviour and intention may change over time, a longitudinal study spanning a period of 5 years with an interval of 1 year each may reveal the extant of technology usage behaviour in individuals. It is expected that a longitudinal study by future researchers can enhance the understanding of technology usage behaviour besides overcoming the limitations of this study.

Table 5.1: Thematic Analysis of Maternal Health Beliefs / Practices

Theme	**Category**	**Sub category**	**Code**
Maternal Health Belief System	Attitude/Perception of the Jampur Families	Family System and Ascendant Influence	Joint family structure, influence of elders, male dominance, mutual consultancy,
		Eating food habits	Higher nutritional intake, proper and adequate nutritional food patterns as precautionary measures
		Food Diet	Cold/ Soft & Warm/ Hard
		Illness and Healing Practices	Allopathic vs Traditional practices, remedies, herbal medicines and self-medication
		Physical Movement and Maternal Beliefs	Cultural beliefs, socio-religious perceptions, internal and external movements

Table 5.1: continued

Theme	Category	Sub category	Code
	Religious and Spiritual Beliefs and Practices Regarding Maternal Heal	Mannat	To be pregnant, son preference, health of baby etc., enlightening lamp, food distribution, sacrificing
		Taweez	words, numbers or Quranic verses
		Dam karne	Holy water/food
		Sadqah	Monetary/material, Poor/transgender
		Milad and Wazeefa	Collective/individual, Recitation of verses/ words
	Rituals Regarding Mother and Newborn	Rituals Regarding Mother	Dress Code, Guad Bhari, Anwal, Nazir Lagna, Chilla, Malish, Dhawna
		Rituals Regarding Newborn	Adhan, Ghutti, Narah, Bandhna, Nazir Lagna, Sathi, Aqeeqah, Jhandh Utarna, Khatna

Source: Field Data 2019-2020

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APPENDICES

APPENDIX 1:

SAMPLE QUESTIONNAIRE

The Relationship between Technology Acceptance Factors and Usage of Online Food Delivery Applications in Sarawak

Dear Participants,

I am a PhD student at Faculty of Economics and Business, University Malaysia Sarawak (UNIMAS). The purpose of this study is to determine **The Relationship between Technology Acceptance Factors and Usage of Online Food Delivery Applications in Sarawak**. This study targeting online food delivery users. You are kindly invited to participate in this research study by completing the Google form. It is anonymous survey, so all responds will be kept private and analyzed in aggregate than individually. The information gathered will be used for academic purposes. Your participation is completely voluntary, and you are inclined to withdraw from the survey at any moment. However, I am grateful for your participation and cooperation.

Thank you for your participation, and please do not hesitate to contact me if you have any questions or require any information regarding this study.

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Section A: The use of Online Food Delivery

Bahagian A: Penggunaan penghantaran makanan dalam talian

Please answer by placing (√).

Sila jawab dengan meletakkan tanda (√).

1. Have you ever ordered food through online?
   Pernahkah anda memesan makanan melalui dalam talian?

Yes, and I keep on ordering. *Ya, dan saya terus memesan.*	
Yes, but I do not order anymore. *Ya, tetapi saya tidak memesan lagi.*	

2. How often do you typically order food online?
   Berapa kerap anda biasanya memesan makanan dalam talian?

At most once daily or in two *Paling banyak sekali sehari atau dua*	
At most Once a week *Paling lama sekali seminggu*	
2-3 times per week *2-3 kali seminggu*	
More than 3 times per week *Lebih daripada 3 kali seminggu*	
Once a month *Sebulan sekali*	
Times a month *Beberapa kali dalam sebulan*	

3. Types of Online Food Delivery Applications frequently used / *Jenis aplikasi penghantaran makanan dalam talian* yang biasa digunakan.

FoodPanda	
GrabFood	
Others	

4. Online Food Delivery Applications usage experience / Pengalaman menggunakan aplikasi penghantaran makanan dalam

Less than one year / Kurang satu tahun	
1-2 years / 1 - 2 tahun	
2-3 years / 2 - 3 tahun	
More than 3 years / Lebih 3 tahun	

5. Most frequent meals using Online Food Delivery Applications / *Waktu makan yang paling kerap menggunakan Aplikasi Penghantaran Makanan Dalam Talian*

Breakfast (weekdays) */ Sarapan pagi (hari bekerja)*	
Breakfast (weekends) */ Sarapan pagi (hujung minggu)*	
Lunch (weekdays) */ Makan tengah hari (hari bekerja)*	
Lunch (weekends) */ Makan tengah hari (hujung minggu)*	
Afternoon snack (weekdays) */ Snek petang (hari bekerja)*	
Afternoon snack (weekends) */ Snek petang (hujung minggu)*	
Dinner (weekdays*) / Makan malam (hari bekerja)*	
Dinner (weekends) */Makan malam (hujung minggu)*	

6. Reason for using Online Food Delivery Applications/ *Sebab menggunakan aplikasi penghantaran makanan dalam talian.*

To save time / untuk menjimatkan masa	
Compare offers / Perbandingan tawaran	
Discounted prices / Harga diskaun	
Past consumers review / Ulasan pengguna yang lepas	
Multiple selections / Pelbagai pilihan	
Familiarity / Kebiasaan	
others	

Section B: Users Technology Acceptance Factors/

Bahagian B: Faktor Penerimaan Teknologi Pengguna

Please rate your response to indicate the level of agreement **(1- Strongly Disagree to 10- Strongly Agree)** with the statement to indicate the level of agreement with the statement.

Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan (1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul dengan apa yang saya percayai dengan pernyataan tersebut) dengan pernyataan tersebut.

Items		**Response scales**									
PE1	The use of Online Food Delivery system is an efficient way to order my food. *Penggunaan sistem Penghantaran Makanan Dalam Talian ialah cara yang cekap untuk memesan makanan saya.*	1	2	3	4	5	6	7	8	9	10
PE2	The use of Online Food Delivery system makes my life easier. *Penggunaan sistem Penghantaran Makanan Dalam Talian memudahkan hidup saya.*	1	2	3	4	5	6	7	8	9	10
PE3	The use of Online Food Delivery system gives me more chance to complete important tasks. *Penggunaan sistem Penghantaran Makanan Dalam Talian memberi saya lebih peluang untuk menyiapkan tugas-tugas yang penting.*	1	2	3	4	5	6	7	8	9	10
PE4	The Online Food Delivery system helps me to complete my tasks quickly. *Sistem Penghantaran Makanan Dalam Talian membantu saya*	1	2	3	4	5	6	7	8	9	10

	menyiapkan tugas-tugas saya dengan cepat.										
PE5	The use of Online Food Delivery system increases my productivity. *Penggunaan 300ystem Penghantaran Makanan Dalam Talian meningkatkan produktiviti saya.*	1	2	3	4	5	6	7	8	9	10
PE6	Overall, the use of Online Delivery System is a useful way to order food. *Secara keseluruhannya, penggunaan sistem Penghantaran Makanan Dalam Talian merupakan cara yang berguna untuk memesan makanan.*	1	2	3	4	5	6	7	8	9	10
EE1	It is easy for me to learn how to use the Online Food Delivery system. *Mudah bagi saya untuk mempelajari cara menggunakan sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
EE2	I found that it is easy to make the system do the things that I want done. *Saya dapati adalah mudah untuk membuat sistem tersebut melakukan perkara yang saya ingin dilakukannya.*	1	2	3	4	5	6	7	8	9	10
EE3	My interaction with the Online Food Delivery system is clear and easy to understand. *Interaksi saya dengan sistem Penghantaran Makanan Dalam*	1	2	3	4	5	6	7	8	9	10

	Talian adalah jelas dan mudah difahami.										
EE4	I found the system to be flexible to interact with. *Saya dapati sistem tersebut fleksibel untuk interaksi dengannya.*	1	2	3	4	5	6	7	8	9	10
EE5	It is easy for me to become skilled in using the Online Food Delivery system. *Mudah bagi saya untuk menjadi mahir dalam menggunakan sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
EE6	I found the system easy to use. *Saya dapati sistem tersebut mudah untuk digunakan.*	1	2	3	4	5	6	7	8	9	10
SF1	The people whose view I appreciate agree for me to use the Online Food Delivery system. *Mereka yang saya hargai pandangannya bersetuju saya menggunakan sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
SF2	Those people who influence my behaviour hope for me to use the Online Food Delivery system. *Mereka yang mempengaruhi kelakuan saya mengharapkan saya menggunakan sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
SF3	People who are important to me are of the opinion that I need to	1	2	3	4	5	6	7	8	9	10

	use the Online Food Delivery system. *Orang yang penting bagi saya berpendapat saya perlu menggunakan sistem Penghantaran Makanan Dalam Talian.*										
SF4	People who are important to me (family members, close friends, and colleagues) recommend I use Online Food Delivery Applications. / *Orang (ahli keluarga, kawan rapat dan rakan sekerja) yang penting bagi saya mencadangkan saya perlu menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
FC1	I have the required resources (e.g: devices, internet access) to use the Online Food Delivery Applications. / *Saya mempunyai sumber (peranti, akses internet) yang diperlukan untuk menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
FC2	I have the required knowledge to use the Online Food Delivery Applications. / *Saya mempunyai pengetahuan yang diperlukan untuk menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10

FC3	The Online Food Delivery Applications is compatible with other technologies that I use. / *Aplikasi Penghantaran Makanan Dalam Talian sesuai dengan teknologi lain yang saya gunakan.*	1	2	3	4	5	6	7	8	9	10
FC4	FC4:I can get help from other people when I face difficulties in using the Online Food Delivery Applications. / *Saya boleh mendapatkan bantuan daripada orang lain apabila saya menghadapi kesukaran dalam menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
FC5	Based on sources (e.g: devices, internet access), opportunity and required knowledge to use, it is easy and comfortable for me to use online food delivery applications. / *Berdasarkan sumber (peranti, akses internet), peluang, dan pengetahuan yang diperlukan, adalah mudah bagi saya untuk menggunakan aplikasi penghantaran makanan dalam talian.*	1	2	3	4	5	6	7	8	9	10
HM1	Use of the Online Food Delivery system gives joy. *Penggunaan sistem Penghantaran Makanan Dalam Talian memberikan keriangan.*	1	2	3	4	5	6	7	8	9	10
HM2	Use of the Online Food Delivery system is fun. *Penggunaan sistem*	1	2	3	4	5	6	7	8	9	10

	Penghantaran Makanan Dalam Talian adalah menyeronokkan.										
HM3	Use of the Online Food Delivery system is entertaining. *Penggunaan sistem Penghantaran Makanan Dalam Talian adalah menghiburkan.*	1	2	3	4	5	6	7	8	9	10
PV1	The price of using the Online Food Delivery system is reasonable. *Harga penggunaan sistem Penghantaran Makanan Dalam Talian adalah berpatutan.*	1	2	3	4	5	6	7	8	9	10
PV2	Use of the Online Food Delivery system is worth the price. *Penggunaan sistem Penghantaran Makanan Dalam Talian adalah berbaloi dengan harganya.*	1	2	3	4	5	6	7	8	9	10
PV3	Based on current price rate, use of the Online Food Delivery system offers good value. *Dengan kadar harga semasa, penggunaan sistem Penghantaran Makanan Dalam Talian menawarkan nilai yang baik.*	1	2	3	4	5	6	7	8	9	10
HA1	Use of the Online Food Delivery system has already become my habit. *Penggunaan sistem Penghantaran Makanan Dalam Talian sudah menjadi tabiat saya.*	1	2	3	4	5	6	7	8	9	10
HA2	I am addicted to the use of Online Food Delivery System. *Saya ketagih dengan penggunaan sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10

HA3	I must use the Online Food Delivery system. *Saya mesti menggunakan sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
HA4	Use of the Online Food Delivery system has become customary for me. *Penggunaan sistem Penghantaran Makanan Dalam Talian sudah menjadi suatu kebiasaan bagi saya.*	1	2	3	4	5	6	7	8	9	10

Section C / *Bahagian C* : Trust/*Kepercayaan*

Please rate your response to indicate the level of trust **(1- Very untrue of what I believe to 10- Very true of what I believe/Sangat betul dengan apa yang saya percayai)** with the statement to indicate the level of agreement with the statement.

*Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan **(1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul dengan apa yang saya percayai)** dengan pernyataan tersebut.*

Items		**Response scales**									
PTR1	The Online Food Delivery system that I use now fulfils its promises and commitments. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang menepati janji dan komitmennya.*	1	2	3	4	5	6	7	8	9	10
PTR2	The Online Food Delivery System that I use now can be depended on. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang boleh diharapkan.*	1	2	3	4	5	6	7	8	9	10

PTR3	The Online Food Delivery System that I use now cares about its customers. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang mengambil berat tentang pelanggannya.*	1	2	3	4	5	6	7	8	9	10
PTR4	The Online Food Delivery System that I use now is capable of performing its job. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang berkeupayaan untuk melakukan tugasnya.*	1	2	3	4	5	6	7	8	9	10
PTR5	The Online Food Delivery System that I use now can be trusted. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang boleh dipercayai.*	1	2	3	4	5	6	7	8	9	10

Section D / *Bahagian D*: Risk/*Risiko*

Please rate your response to indicate the level of knowledge of action with the statement

(1- Very Untrue to 10- Very true).

*Sila nilaikan respons anda untuk menunjukkan tahap pengetahuan tindakan **(1- Sangat Tidak Betul sehingga 10- Sangat Betul)** dengan pernyataan tersebut dengan pernyataan*

Items		**Response scales**									
PR1	Use of the Online Food Delivery Applications will not cause my personal information to be stolen / *Penggunaan Aplikasi Penghantaran Makanan Dalam Talian tidak akan menyebabkan maklumat peribadi saya dicuri.*	1	2	3	4	5	6	7	8	9	10
PR2	There is no possibility that using online food delivery applications will below user expectations (foods and beverages ordered process) / *Tidak mungkin dengan menggunakan aplikasi penghantaran makanan dalam talian akan berada di bawah jangkaan pengguna (proses tempahan makanan dan minuman).*	1	2	3	4	5	6	7	8	9	10
PR3	I am confident that the online food delivery applications will perform the functions that were described (foods and beverages ordered	1	2	3	4	5	6	7	8	9	10

	process) / *Saya yakin aplikasi penghantaran makanan dalam talian akan melaksanakan fungsi yang diterangkan (proses tempahan makanan dan minuman).*										
PR4	There no chance that there will be something wrong with the online food delivery applications because it always work properly / *Tidak mungkin akan ada sesuatu yang tidak kena dengan aplikasi penghantaran makanan dalam talian kerana ia sentiasa berfungsi dengan baik.*	1	2	3	4	5	6	7	8	9	10
PR5	I believe no negative effects from using the Online Food Delivery Applications. / *Saya percaya tidak terdapat kesan negatif dengan menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10

Section E / *Bahagian E*: Behavioral intention to Use/ *Niat tingkah laku*

Please rate your response to indicate the level of agreement **(1- Strongly Disagree to 10- Strongly Agree)** with the statement to indicate the level of agreement with the statement.

*Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan **(1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul)** dengan pernyataan tersebut.*

Items		**Response scales**									
BI1	I intend to continue using the Online Food Delivery system in the future. *Saya dapat merasakan bahawa saya akan menggunakan sistem Penghantaran Makanan Dalam Talian pada masa hadapan.*	1	2	3	4	5	6	7	8	9	10
BI2	I can feel that I will be using the Online Food Delivery system in the future. *Saya dapat merasakan bahawa saya akan menggunakan sistem Penghantaran Makanan Dalam Talian pada masa hadapan.*	1	2	3	4	5	6	7	8	9	10
BI3	I plan to use the Online Food Delivery system in the future. *Saya merancang untuk menggunakan sistem Penghantaran Makanan Dalam Talian pada masa hadapan.*	1	2	3	4	5	6	7	8	9	10
BI4	I expect that my usage of the Online Food Delivery system will continue in the future. *Saya menjangkakan penggunaan sistem Penghantaran Makanan Dalam Talian saya akan diteruskan pada masa hadapan.*	1	2	3	4	5	6	7	8	9	10

Section F/ *Bahagian F :* Usage/*Penggunaan*

Please rate your response to indicate the level of agreement **(1- Strongly Disagree to 10- Strongly Agree)** with the statement to indicate the level of agreement with the statement.

*Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan **(1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul)** dengan pernyataan tersebut.*

Items		**Response scales**									
UB1	I consider myself a regular user of the Online Food Delivery system. *Saya menganggap diri saya pengguna tetap sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
UB2	I prefer to use the Online Food Delivery system when it is available. *Saya lebih suka menggunakan sistem Penghantaran Makanan Dalam Talian apabila ia tersedia.*	1	2	3	4	5	6	7	8	9	10
UB3	Most of my food orders are made through the Online Food Delivery system. *Kebanyakan pesanan makanan saya adalah melalui sistem Penghantaran Makanan Dalam Talian.*	1	2	3	4	5	6	7	8	9	10
UB4	I tend to use the Online Food Delivery system at any time that it can be used. *Saya cenderung menggunakan sistem Penghantaran Makanan Dalam Talian pada bila-bila masa ia boleh dilakukan.*	1	2	3	4	5	6	7	8	9	10

Section G: Demographic Profile

Bahagian G: Profil Demografi

Please answer by placing (√). *Sila jawab dengan meletakkan tanda (√).*

1. What is your age?/*Berapakah umur anda?*

18 - 19 years old*/ 18 -19 tahun*	
20 - 29 years old*/ 20-29 tahun*	
30-39 years old*/ 30-39 tahun*	
40-49 years old*/40-49 tahun*	
50-64 years old*/50-64 tahun*	
65+ years old*/65 tahun dan ke atas*	

2. What is your gender? / *Apakah jantina anda?*

Male */ Lelaki*	
Female */ Perempuan*	

3. What is your race? / *Apakah bangsa anda?*

Malay */ Melayu*	
Chinese */ Cina*	
India */ India*	
Bumiputera Sarawak	
Bumiputera Sabah	

4. What is your marital status?/Apakah status perkahwinan anda?

Single/*Belum Berkahwin*	
Married/*Berkahwin*	
Divorced/*Bercerai*	

5. What is your educational background? / *Apakah latarbelakang Pendidikan anda?*

School leavers */ Lepasan sekolah*	
Vocational / technical leavers */ lepasan vokasional/teknikal*	

Diploma holder */Pemegang diploma*	
Bachelor Degree holder */ Pemegang Ijazah Sarjana Muda*	
Master Degree holder */ Pemegang Ijazah Sarjana*	
Doctoral Degree holder */ Pemegang Ijazah Kedoktoran*	

6. Residence / *Kediaman:*

Urban */ Bandar*	
Sub-urban */ Pinggir bandar*	

7. What is your employment status? /Apakah status pekerjaan anda?

Employed - fulltime*/ Bekerja sepenuh masa*	
Employed - Part time*/ Bekerja separuh masa*	
Self employed */ Bekerja sendiri*	
Student - not employed */ Pelajar - tidak bekerja*	
Retired */ Pesara*	
Not employed */ Tidak bekerja*	

8. What is your monthly income? / Berapakah pendapatan bulanan anda*?*

Less than RM1500 / Kurang daripada RM1500	
RM1501 - RM2500	
RM2501 - RM3500	
RM3501 - RM4500	
RM4501 - RM5500	
RM5501 - RM6500	
RM6501 - RM7500	
RM7501 - RM 8500	
RM8501 - RM9500	
RM9501 - RM10500	
RM10501 and above/ RM10501 dan ke atas	

9. Family members (in the same house) / *Bilangan Ahli keluarga yang tinggal Bersama?*

1 - 2 members */ 1 -2 ahli keluarga*	
3 – 4 members */ 3 -4 ahli keluarga*	
5 – 6 members */ 5 - 6 ahli keluarga*	
More than 6 members */ lebih daripada 6 ahli keluarga*	

"**Thank you for your feedback. I really appreciate your time**."

APPENDIX 2: PRE – TEST QUESTIONNAIRE FOR VALIDATION

Pre – Test Questionnaire for Validation

The Relationship between Technology Acceptance Factors and Usage of Online Food Delivery Applications in Sarawak.

Dear Professor / Associate Professor / Dr / Mr / Mrs / Miss,

I am currently conducting the aforementioned research as part of my PhD thesis undertaking. I have managed to prepare an instrument adapted from previous studies in order to measure the construct of interest. I would like to ask for your kind assistance in validating and reviewing the items that will be included in the questionnaires. Please respond to the exercise by indicating whether each item is "Perfectly Match," "Moderately Match," or "Poorly Match".

I would like to express my furthest gratitude towards your contribution in my PhD research.

Contacts details;

Nur Suriayanti Binti Gadiman

PhD Student

Faculty of Economics and Business

University Malaysia Sarawak, (UNIMAS)

Phone number: 016-8175524

Supervisor;

Dr Norizan Binti Jaafar

Faculty of Economics and Business

University Malaysia Sarawak (UNIMAS)

Section A: The use of Online Food Delivery

Bahagian A: Penggunaan penghantaran makanan dalam talian

Please answer by placing (√).

Sila jawab dengan meletakkan tanda (√).

1 Have you ever ordered food through online?

Pernahkah anda memesan makanan melalui dalam talian?

Yes, and I keep on ordering. *Ya, dan saya terus memesan.*	
Yes, but I do not order anymore. *Ya, tetapi saya tidak memesan lagi.*	

2 How often do you typically order food online?

Berapa kerap anda biasanya memesan makanan dalam talian?

At most once daily or in two *Paling banyak sekali sehari atau dua*	
At most Once a week *Paling lama sekali seminggu*	
2-3 times per week *2-3 kali seminggu*	
More than 3 times per week *Lebih daripada 3 kali seminggu*	
Once a month *Sebulan sekali*	
Times a month	

Beberapa kali dalam sebulan ☐

3 Types of Online Food Delivery Applications frequently used / *Jenis aplikasi penghantaran makanan dalam talian* yang biasa digunakan.

FoodPanda ☐

GrabFood ☐

Others ☐

4 Online Food Delivery Applications usage experience / Pengalaman menggunakan aplikasi penghantaran makanan dalam

Less than one year / Kurang satu tahun ☐

1-2 years / 1 - 2 tahun ☐

2-3 years / 2 - 3 tahun ☐

More than 3 years / Lebih 3 tahun ☐

5 Most frequent meals using Online Food Delivery Applications / *Waktu makan yang paling kerap menggunakan Aplikasi Penghantaran Makanan Dalam Talian*

Breakfast (weekdays) / *Sarapan pagi (hari bekerja)* ☐

Breakfast (weekends) / *Sarapan pagi (hujung minggu)* ☐

Lunch (weekdays) / *Makan tengah hari (hari bekerja)* ☐

Lunch (weekends) / *Makan tengah hari (hujung minggu)* ☐

Afternoon snack (weekdays) / *Snek petang (hari bekerja)* ☐

Afternoon snack (weekends) */ Snek petang (hujung minggu)*	
Dinner (weekdays*) / Makan malam (hari bekerja)*	
Dinner (weekends) */Makan malam (hujung minggu)*	

6 Reason for using Online Food Delivery Applications/ *Sebab menggunakan aplikasi penghantaran makanan dalam talian.*

To save time / untuk menjimatkan masa	
Compare offers / Perbandingan tawaran	
Discounted prices / Harga diskaun	
Past consumers review / Ulasan pengguna yang lepas	
Multiple selections / Pelbagai pilihan	
Familiarity / Kebiasaan	
others	

Section B: Users Technology Acceptance Factors/

Bahagian B: Faktor Penerimaan Teknologi Pengguna

Please rate your response to indicate the level of agreement **(1- Strongly Disagree to 10- Strongly Agree)** with the statement to indicate the level of agreement with the statement.

Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan (1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul dengan apa yang saya percayai dengan pernyataan tersebut) dengan pernyataan tersebut.

Items		Perfectly match (Maintain item as it is)	Moderately match (Maintain item but need some refining)	Poorly match (Remove item)
PE1	The use of Online Food Delivery system is an efficient way to order my food. *Penggunaan sistem Penghantaran Makanan Dalam Talian ialah cara yang cekap untuk memesan makanan saya.*			
PE2	The use of Online Food Delivery system makes my life easier. *Penggunaan sistem Penghantaran Makanan Dalam Talian memudahkan hidup saya.*			
PE3	The use of Online Food Delivery system gives me more chance to complete important tasks. *Penggunaan sistem Penghantaran Makanan Dalam Talian memberi saya lebih peluang untuk menyiapkan tugas-tugas yang penting.*			

PE4	The Online Food Delivery system helps me to complete my tasks quickly. *Sistem Penghantaran Makanan Dalam Talian membantu saya menyiapkan tugas-tugas saya dengan cepat.*			
PE5	The use of Online Food Delivery system increases my productivity. *Penggunaan 319ystem Penghantaran Makanan Dalam Talian meningkatkan produktiviti saya.*			
PE6	Overall, the use of Online Delivery System is a useful way to order food. *Secara keseluruhannya, penggunaan sistem Penghantaran Makanan Dalam Talian merupakan cara yang berguna untuk memesan makanan.*			
EE1	It is easy for me to learn how to use the Online Food Delivery system. *Mudah bagi saya untuk mempelajari cara menggunakan sistem Penghantaran Makanan Dalam Talian.*			
EE2	I found that it is easy to make the system do the things that I want done. *Saya dapati adalah mudah untuk membuat sistem tersebut melakukan perkara yang saya ingin dilakukannya.*			

EE3	My interaction with the Online Food Delivery system is clear and easy to understand. *Interaksi saya dengan sistem Penghantaran Makanan Dalam Talian adalah jelas dan mudah difahami.*			
EE4	I found the system to be flexible to interact with. *Saya dapati sistem tersebut fleksibel untuk interaksi dengannya.*			
EE5	It is easy for me to become skilled in using the Online Food Delivery system. *Mudah bagi saya untuk menjadi mahir dalam menggunakan sistem Penghantaran Makanan Dalam Talian.*			
EE6	I found the system easy to use. *Saya dapati sistem tersebut mudah untuk digunakan.*			
SF1	The people whose view I appreciate agree for me to use the Online Food Delivery system. *Mereka yang saya hargai pandangannya bersetuju saya menggunakan sistem Penghantaran Makanan Dalam Talian.*			
SF2	Those people who influence my behaviour hope for me to use the Online Food Delivery system. *Mereka yang mempengaruhi kelakuan saya mengharapkan saya menggunakan sistem*			

	Penghantaran Makanan Dalam Talian.			
SF3	People who are important to me are of the opinion that I need to use the Online Food Delivery system. *Orang yang penting bagi saya berpendapat saya perlu menggunakan sistem Penghantaran Makanan Dalam Talian.*			
SF4	People who are important to me (family members, close friends, and colleagues) recommend I use Online Food Delivery Applications. / *Orang (ahli keluarga, kawan rapat dan rakan sekerja) yang penting bagi saya mencadangkan saya perlu menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*			
FC1	I have the required resources (e.g: devices, internet access) to use the Online Food Delivery Applications. / *Saya mempunyai sumber (peranti, akses internet) yang diperlukan untuk menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*			
FC2	I have the required knowledge to use the Online Food Delivery Applications. / *Saya mempunyai pengetahuan yang diperlukan untuk menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*			

FC3	The Online Food Delivery Applications is compatible with other technologies that I use. / *Aplikasi Penghantaran Makanan Dalam Talian sesuai dengan teknologi lain yang saya gunakan.*			
FC4	FC4:I can get help from other people when I face difficulties in using the Online Food Delivery Applications. / *Saya boleh mendapatkan bantuan daripada orang lain apabila saya menghadapi kesukaran dalam menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*			
FC5	Based on sources (e.g: devices, internet access), opportunity and required knowledge to use, it is easy and comfortable for me to use online food delivery applications. / *Berdasarkan sumber (peranti, akses internet), peluang, dan pengetahuan yang diperlukan, adalah mudah bagi saya untuk menggunakan aplikasi penghantaran makanan dalam talian.*			
HM1	Use of the Online Food Delivery system gives joy. *Penggunaan sistem Penghantaran Makanan Dalam Talian memberikan keriangan.*			
HM2	Use of the Online Food Delivery system is fun. *Penggunaan sistem Penghantaran Makanan Dalam Talian adalah menyeronokkan.*			

HM3	Use of the Online Food Delivery system is entertaining. *Penggunaan sistem Penghantaran Makanan Dalam Talian adalah menghiburkan.*			
PV1	The price of using the Online Food Delivery system is reasonable. *Harga penggunaan sistem Penghantaran Makanan Dalam Talian adalah berpatutan.*			
PV2	Use of the Online Food Delivery system is worth the price. *Penggunaan sistem Penghantaran Makanan Dalam Talian adalah berbaloi dengan harganya.*			
PV3	Based on current price rate, use of the Online Food Delivery system offers good value. *Dengan kadar harga semasa, penggunaan sistem Penghantaran Makanan Dalam Talian menawarkan nilai yang baik.*			
HA1	Use of the Online Food Delivery system has already become my habit. *Penggunaan sistem Penghantaran Makanan Dalam Talian sudah menjadi tabiat saya.*			
HA2	I am addicted to the use of Online Food Delivery System.			

	Saya ketagih dengan penggunaan sistem Penghantaran Makanan Dalam Talian.			
HA3	I must use the Online Food Delivery system. *Saya mesti menggunakan sistem Penghantaran Makanan Dalam Talian.*			
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Section C / *Bahagian C* : Trust/*Kepercayaan*

Please rate your response to indicate the level of trust **(1- Very untrue of what I believe to 10- Very true of what I believe/Sangat betul dengan apa yang saya percayai)** with the statement to indicate the level of agreement with the statement.

*Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan **(1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul dengan apa yang saya percayai)** dengan pernyataan tersebut.*

Items		Perfectly match (Maintain item as it is)	Moderately match (Maintain item but need some refining)	Poorly match (Remove item)
PTR1	The Online Food Delivery system that I use now fulfils its promises and commitments. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang menepati janji dan komitmennya.*			

PTR2	The Online Food Delivery System that I use now can be depended on. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang boleh diharapkan.*			
PTR3	The Online Food Delivery System that I use now cares about its customers. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang mengambil berat tentang pelanggannya.*			
PTR4	The Online Food Delivery System that I use now is capable of performing its job. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang berkeupayaan untuk melakukan tugasnya.*			
PTR5	The Online Food Delivery System that I use now can be trusted. *Sistem Penghantaran Makanan Dalam Talian yang saya gunakan sekarang boleh dipercayai.*			

Section D / *Bahagian D*: Risk/*Risiko*

Please rate your response to indicate the level of knowledge of action with the statement

(1- Very Untrue to 10- Very true).

*Sila nilaikan respons anda untuk menunjukkan tahap pengetahuan tindakan **(1- Sangat Tidak Betul sehingga 10- Sangat Betul)** dengan pernyataan tersebut dengan pernyataan*

Items		Perfectly match (Maintain item as it is)	Moderately match (Maintain item but need some refining)	Poorly match (Remove item)
PR1	Use of the Online Food Delivery Applications will not cause my personal information to be stolen / *Penggunaan Aplikasi Penghantaran Makanan Dalam Talian tidak akan menyebabkan maklumat peribadi saya dicuri.*			
PR2	There is no possibility that using online food delivery applications will below user expectations (foods and beverages ordered process) / *Tidak mungkin dengan menggunakan aplikasi penghantaran makanan dalam talian akan berada di bawah jangkaan pengguna (proses tempahan makanan dan minuman).*			
PR3	I am confident that the online food delivery applications will perform the functions that were described (foods and beverages ordered process) / *Saya yakin aplikasi penghantaran makanan dalam talian akan melaksanakan fungsi yang diterangkan (proses tempahan makanan dan minuman).*			

PR4	There no chance that there will be something wrong with the online food delivery applications because it always work properly / *Tidak mungkin akan ada sesuatu yang tidak kena dengan aplikasi penghantaran makanan dalam talian kerana ia sentiasa berfungsi dengan baik.*			
PR5	I believe no negative effects from using the Online Food Delivery Applications. / *Saya percaya tidak terdapat kesan negatif dengan menggunakan Aplikasi Penghantaran Makanan Dalam Talian.*			

Section E / *Bahagian E*: Behavioral intention to Use/ *Niat tingkah laku*

Please rate your response to indicate the level of agreement **(1- Strongly Disagree to 10- Strongly Agree)** with the statement to indicate the level of agreement with the statement.

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Items		Perfectly match (Maintain item as it is)	Moderately match (Maintain item but need some refining)	Poorly match (Remove item)
BI1	I intend to continue using the Online Food Delivery system in the future. *Saya dapat merasakan bahawa saya akan menggunakan sistem Penghantaran Makanan Dalam Talian pada masa hadapan.*			
BI2	I can feel that I will be using the Online Food Delivery system in the future. *Saya dapat merasakan bahawa saya akan menggunakan sistem Penghantaran Makanan Dalam Talian pada masa hadapan.*			
BI3	I plan to use the Online Food Delivery system in the future. *Saya merancang untuk menggunakan sistem Penghantaran Makanan Dalam Talian pada masa hadapan.*			
BI4	I expect that my usage of the Online Food Delivery system will continue in the future. *Saya menjangkakan penggunaan sistem Penghantaran Makanan Dalam*			

	Talian saya akan diteruskan pada masa hadapan.			

Section F/ *Bahagian F :* Usage/*Penggunaan*

Please rate your response to indicate the level of agreement **(1- Strongly Disagree to 10- Strongly Agree)** with the statement to indicate the level of agreement with the statement.

*Sila nilaikan respons anda untuk menunjukkan tahap kepercayaan **(1- Sangat tidak benar dengan apa yang saya percayai sehingga 10- Sangat betul)** dengan pernyataan tersebut.*

Items		Perfectly match (Maintain item as it is)	Moderately match (Maintain item but need some refining)	Poorly match (Remove item)
UB1	I consider myself a regular user of the Online Food Delivery system. *Saya menganggap diri saya pengguna tetap sistem Penghantaran Makanan Dalam Talian.*			
UB2	I prefer to use the Online Food Delivery system when it is available. *Saya lebih suka menggunakan sistem Penghantaran Makanan Dalam Talian apabila ia tersedia.*			
UB3	Most of my food orders are made through the Online Food Delivery system. *Kebanyakan pesanan makanan saya adalah melalui sistem Penghantaran Makanan Dalam Talian.*			
UB4	I tend to use the Online Food Delivery system at any time that it can be used. *Saya cenderung menggunakan sistem Penghantaran Makanan Dalam Talian pada bila-bila masa ia boleh dilakukan.*			

Section G: Demographic Profile

Bahagian G: Profil Demografi

Please answer by placing (√). *Sila jawab dengan meletakkan tanda (√).*

1. What is your age?/*Berapakah umur anda?*

18 - 19 years old*/ 18 -19 tahun*	
20 - 29 years old*/ 20-29 tahun*	
30-39 years old*/ 30-39 tahun*	
40-49 years old*/40-49 tahun*	
50-64 years old*/50-64 tahun*	
65+ years old*/65 tahun dan ke atas*	

2. What is your gender? / *Apakah jantina anda?*

Male */ Lelaki*	
Female */ Perempuan*	

3. What is your race? / *Apakah bangsa anda?*

Malay */ Melayu*	
Chinese */ Cina*	
India */ India*	
Bumiputera Sarawak	
Bumiputera Sabah	

4. What is your marital status?/Apakah status perkahwinan anda?

Single*/Belum Berkahwin*	

Married/*Berkahwin*

Divorced/*Bercerai*

5. What is your educational background? / *Apakah latarbelakang Pendidikan anda?*

School leavers */ Lepasan sekolah*

Vocational / technical leavers */ lepasan vokasional/teknikal*

Diploma holder */Pemegang diploma*

Bachelor Degree holder */ Pemegang Ijazah Sarjana Muda*

Master Degree holder */ Pemegang Ijazah Sarjana*

Doctoral Degree holder */ Pemegang Ijazah Kedoktoran*

6. Residence / *Kediaman:*

Urban */ Bandar*

Sub-urban */ Pinggir bandar*

7. What is your employment status? /Apakah status pekerjaan anda?

Employed - fulltime*/ Bekerja sepenuh masa*

Employed - Part time*/ Bekerja separuh masa*

Self employed */ Bekerja sendiri*

Student - not employed */ Pelajar - tidak bekerja*

Retired */ Pesara*

Not employed */ Tidak bekerja*

8. What is your monthly income? / Berapakah pendapatan bulanan anda?

Less than RM1500 / Kurang daripada RM1500	
RM1501 - RM2500	
RM2501 - RM3500	
RM3501 - RM4500	
RM4501 - RM5500	
RM5501 - RM6500	
RM6501 - RM7500	
RM7501 - RM 8500	
RM8501 - RM9500	
RM9501 - RM10500	
RM10501 and above/ RM10501 dan ke atas	

9. Family members (in the same house) / *Bilangan Ahli keluarga yang tinggal Bersama?*

1 - 2 members */ 1 -2 ahli keluarga*	
3 – 4 members */ 3 -4 ahli keluarga*	
5 – 6 members */ 5 - 6 ahli keluarga*	
More than 6 members */ lebih daripada 6 ahli keluarga*	

"**Thank you for your feedback. I really appreciate your time**"

Overall Comment:

Expert Validity Details

Name:

Institution / Affiliation:

E-mail address:

Signature: **Date:**

No.	Code	English Version	Malay Version	Expert Review 1	Expert Review 2	Expert Review 3	Expert Review 4	Expert Review 5
1	PE1	The use of Online Food Delivery system is an efficient way to order my food.	*Penggunaan sistem Penghantaran Makanan Dalam Talian ialah cara yang cekap untuk memesan makanan saya.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
2	PE2	The use of Online Food Delivery system makes my life easier.	*Penggunaan sistem Penghantaran Makanan Dalam Talian memudahkan hidup saya.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
3	PE3	The use of Online Food Delivery system gives me more chance to complete important tasks.	*Penggunaan sistem Penghantaran Makanan Dalam Talian memberi saya lebih peluang untuk menyiapkan tugas-tugas yang penting.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
4	PE4	The use of Online Food Delivery system	*Penggunaan Penghantaran Makanan Dalam Talian*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

		helps me to complete my tasks quickly.	*dapat membantu saya menyiapkan tugas-tugas saya dengan cepat.*					
5	PE5	The use of Online Food Delivery system increases my productivity.	*Penggunaan sistem Penghantaran Makanan Dalam Talian meningkatkan produktiviti saya.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
6	PE6	Overall, the use of Online Delivery System is a useful way to order food.	*Secara keseluruhannya, penggunaan sistem Penghantaran Makanan Dalam Talian merupakan cara yang berguna untuk memesan makanan.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
7	EE1	It is easy for me to learn how to use the Online Food Delivery system.	*Mudah bagi saya untuk mempelajari cara menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
8	EE2	I found that it is easy to make the system do	*Saya dapati adalah mudah untuk membuat sistem*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

		the things that I want done.	*tersebut melakukan perkara yang saya ingin dilakukannya.*					
9	EE3	My interaction with the Online Food Delivery system is clear and easy to understand.	*Interaksi saya dengan sistem Penghantaran Makanan Dalam Talian adalah jelas dan boleh difahami.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
10	EE4	I found the system to be flexible to interact with,	*Saya dapati sistem tersebut adalah fleksibel untuk interaksi dengannya.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
11	EE5	It is easy for me to become skilled in using the Online Food Delivery system.	*Mudah bagi saya untuk menjadi mahir dalam menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
12	EE6	I found the system easy to use.	*Saya dapati sistem tersebut mudah untuk digunakan.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
13	SN1	The people whose view I appreciate agree	*Merekay yang saya hargai pandangannya bersetuju*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*

		for me to use the Online Food Delivery.	*saya menggunakan sistem Penghantaran Makanan Dalam Talian.*					
14	SN2	Those people who influence my behaviour hope for me to use the Online Food Delivery.	*Mereka yang mempengaruhi kelakuan saya mengharapkan saya menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
15	SN3	People who are important to me are of the opinion that I need to use the Online Food Delivery.	*Mereka yang penting bagi saya berpendapat bahawa saya harus menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
16	SN4	people who are important to me recommend that I should use Online Food Delivery system.	*Mereka yang penting bagi saya mencadangkan bahawa saya harus menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*

17	SF1	I have the resources necessary to use Online Food Delivery system.	*Saya mempunyai sumber yang diperlukan untuk menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
18	SF2	I have the knowledge necessary to use Online Food Delivery system.	*Saya mempunyai pengetahuan yang diperlukan untuk menggunakan sistem Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
19	SF3	Online Food Delivery system are compatible with other technologies I use.	*Sistem Penghantaran Makanan Dalam Talian sesuai dengan teknologi lain yang saya gunakan.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
20	SF4	I can get help from others when I have difficulties using Online Food Delivery system.	*Saya boleh mendapatkan bantuan daripada orang lain apabila saya menghadapi kesukaran dalam menggunakan sistem*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

			Penghantaran Makanan Dalam Talian.					
21	SF5	Given the resources, opportunities and knowledge it takes to use the system, it would be easy for me to use the system.	*Dengan berbekalkan sumber, peluang dan pengetahuan yang diperlukan untuk menggunakan sistem, mudah bagi saya untuk menggunakan sistem ini.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
22	HM1	Using Online Food Delivery system is fun.	*Menggunakan sistem Penghantaran Makanan Dalam Talian adalah memberikan keriangan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
23	HM2	Using Online Food Delivery system is enjoyable.	*Menggunakan sistem Penghantaran Makanan Dalam Talian adalah menyeronokkan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
24	HM3	Using Online Food Delivery system is entertaining.	*Menggunakan sistem Penghantaran Makanan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*

			Dalam Talian adalah menghiburkan.					
25	PV1	I can save money by using online food delivery for purchasing foods by comparing the prices offered at different online food delivery platforms.	*Saya boleh menjimatkan wang dengan menggunakan penghantaran makanan dalam talian untuk membeli makanan dengan membandingkan harga yang ditawarkan oleh penghantaran makanan dalam talian yang berbeza.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
26	PV2	I like to search for cheap deals at different online food delivery platforms when I ordered foods through online food delivery.	*Saya suka mencari tawaran murah di pelbagai penghantaran makanan dalam talian platform apabila saya memesan makanan dan minuman melalui platform penghantaran makanan dalam talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

27	PV3	I believe online food delivery offer better value for my money.	*Saya percaya penghantaran makanan dalam talian menawarkan nilai yang lebih baik untuk wang saya*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
28	HA1	The use of Online Food Delivery system has become a habit for me.	*Penggunaan Penghantaran Makanan Dalam Talian sudah menjadi tabiat saya.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
29	HA2	I am addicted to use Online Food Delivery system.	*Saya ketagih menggunakan Penghantaran Makanan Dalam Talian*	*Perfectly match*	*Perfectly match*	*Perfectly match*	moderately match	*Perfectly match*
30	HA3	I must use Online Food Delivery system.	*Saya mesti menggunakan Penghantaran Makanan Dalam Talian*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
31	HA4	Using Online Food Delivery system has become customary to me.	*Penggunaan Penghantaran Makanan Dalam Talian sudah menjadi suatu kebiasaan bagi saya*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

32	PT1	The Online Food Delivery system that I am using now keeps its promises and commitments.	*Penghantaran Makanan Dalam Talian yang saya gunakan sekarang menepati janji dan komitmen*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
33	PT2	The Online Food Delivery system that I am using now can be relied upon.	*Penghantaran Makanan Dalam Talian yang saya gunakan sekarang boleh diharapkan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
34	PT3	The Online Food Delivery system that I am using now cares about its customers.	*Penghantaran Makanan Dalam Talian yang saya gunakan sekarang mengambil berat tentang pelanggannya.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
35	PT4	The Online Food Delivery system that I am using now is capable of doing its job.	*Penghantaran Makanan Dalam Talian yang saya gunakan sekarang berkeupayaan untuk melakukan tugas*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

36	PT5	The Online Food Delivery system that I am using now is trustworthy.	*Penghantaran Makanan Dalam Talian yang saya gunakan sekarang boleh dipercayai.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
37	PR1	Use of Online Food Delivery system will not cause my personal information to be stolen	*Penggunaan Penghantaran Makanan Dalam Talian tidak akan menyebabkan maklumat peribadi saya dicuri.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
38	PR2	There is no possibility that using food delivery will below user expectation.	*Saya yakin penghantaran makanan dalam talian akan melaksanakan fungsi yang diterangkan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
39	PR3	I am confident that the online food delivery will perform the functions that were described.	*Tidak mungkin akan ada sesuatu yang tidak kena dengan penghantaran makanan dalam talian kerana ia sentiasa berfungsi dengan baik.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

40	PR4	I believe that there no negative consequences by using the Online Food Delivery system	*Saya percaya tidak terdapat kesan negatif dengan menggunakan Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
41	BI1	I intend to continue using the Online Food Delivery system in the future.	*Saya berhasrat untuk meneruskan menggunakan Penghantaran Makanan Dalam Talian pada masa hadapan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
42	BI2	I predict I would use the Online Food Delivery system in the future.	*Saya dapat merasakan bahawa saya akan menggunakan Penghantaran Makanan Dalam Talian pada masa hadapan.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
43	BI3	I plan to use the Online Food Delivery system in the future.	*Saya merancang untuk menggunakan Penghantaran Makanan Dalam Talian pada masa hadapan.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

44	BI4	I expect my use of the Online Food Delivery system to continue in the future.	*Saya menjangkakan penggunaan Penghantaran Makanan Dalam Talian saya akan diteruskan pada masa hadapan.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
45	UB1	I consider myself a regular user of Online Food Delivery system	*Saya menganggap diri saya pengguna tetap Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
46	UB2	I prefer to use Online Food Delivery system when available.	*Saya lebih suka menggunakan Penghantaran Makanan Dalam Talian apabila ia tersedia.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
47	UB3	I do most ordering food by using Online Food Delivery system.	*Kebanyakan pesanan makanan saya adalah melalui Penghantaran Makanan Dalam Talian.*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*
48	UB4	My tendency is towards using Online	*Saya cenderung menggunakan*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*	*Perfectly match*

		Food Delivery system whenever possible.	*Penghantaran Makanan Dalam Talian pada bila-bila masa ia boleh dilakukan.*					