

Turning Crisis into Opportunity in the Gig Economy - Acceptance of e-Hailing Food Delivery Applications in Malaysia

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ABSTRACT

The negative impact of the COVID-19 pandemic has given people the opportunity to move forward. The increasing number of app-based online ordering systems creates significant job opportunities for freelancers and the jobless impacted by the COVID-19 pandemic. The scenario has brought about a Gig-economy in the Malaysian context. This study aims to examine and explain consumers' behavioural usage of e-hailing food delivery applications in Malaysia using the Technology Acceptance Model (TAM). One hundred respondents completed the structured survey questionnaires. The study found that perceived usefulness and perceived ease of use positively affect the behavioural intention to use e-hailing food delivery applications. Besides, behavioural intention also positively affects actual usage. The study suggests that the government or policymakers could give more attention to this fast-growing industry.

Keywords: Sustainability, Gig Economy, Technology Acceptance Model (TAM), e-hailing, PLS-SEM

1.0 INTRODUCTION

The year 2020 has been astounded by the COVID-19 pandemic. World Health Organization (WHO) declared the COVID-19 outbreak a global emergency on 30 January 2020 (World Health Organization [WHO], 2020). COVID-19, previously known as the new coronavirus, first emerged in Wuhan, China, in December 2019 and since then has spread rapidly (Mohan and Nambiar, 2020). The end of October 2020 saw 43 million confirmed cases arising from the COVID-19 pandemic. The death toll reached more than 6.4 million globally in August 2022 (WHO, 2022). The ongoing spread of COVID-19 creates one of the biggest threats to the global economy. The COVID-19 outbreak has led to a dramatic drop in Foreign Direct Investment flows (Mishra, 2020). COVID-19 has also led to recession in some countries and the deceleration of global annual growth. Many countries have to enforce quarantine, lockdowns, and border shutdowns to reduce its drastic spread to the people, as suggested by WHO (WHO, 2020b). In Malaysia, the Movement Control Order (MCO) was announced in March 2020 to flatten the pandemic spread curve (Shamsudin, 2020). The outcome of this pandemic has led to the worst economic crisis and recession (The World Bank, 2020a). In April, the World Bank cut Malaysia's 2020 GDP growth forecast from 4.5% to a negative 0.1% due to the COVID-19 outbreak (Aruna, 2020). The MCO was then extended but with some conditions to stimulate the economy. Bank Negara Malaysia announced that Malaysia's GDP for the first quarter of 2020 moderated sharply to 0.7%, mainly reflected by the Movement Control Order (MCO) implementation (Business Today, 2020). The Malaysian government introduced Bantuan Prihatin Nasional (BPN), Geran Khas Prihatin (GPK), and many other stimulus economic packages to reduce the household burden (Bernama, 2020). The creation of BPN has increased the disposable income among Malaysians and encouraged consumer spending. Many have lost jobs and income (Habibullah et al., 2021). Many businesses were forced to shut down (Bartik, et al., 2020). The Malaysian government needs to provide pro-growth policies, coupled with incentives, especially for the SMEs in the private sector, to recover from the economic downturn. Malaysia is entering the recovery phase from the COVID-19 pandemic to the endemic. The majority of businesses are allowed to reopen starting from the Conditional Movement Control Order (CMCO) phase (Perimbanayagam, 2020). The Malaysian government introduced the Recovery Movement Control Order (RMCO) from 10 June to 31 August 2020. Social distancing, wearing a face mask, movement tracing, and other preventive actions are enforced to prevent another wave of the pandemic's spread. According to the World Bank, Malaysia's economic recovery will begin at the end of 2020 and return to growth in 2021 (The World Bank, 2020b).

During MCO, businesses that involve online platforms and delivery services come into place and receive a dramatic increase in demand (Omar, 2021). One of the rising demands is e-hailing food delivery application services. Since the Malaysian government imposes physical distancing orders, the number of dine-in customers in a restaurant must be reduced. People are starting to accept online ordering for their food and beverages through e-hailing services. Even though the demand for e-hailing transportation has decreased due to the Malaysian government's MCO implementation, e-hailing food delivery services show increasing numbers and forecasted future growth. The use of e-hailing food delivery applications can be a new norm in ordering food and beverages. E-hailing can be categorised into gig economy or sharing economy sectors. The growth of this gig economy sector in a time of health crisis has changed how resources, products, and services are distributed and used by organisations and consumers. It may accelerate and reinforce the existing consumer trends. The term 'Gig Economy' came into being after the last recession (Kacher and Weiler, 2017). The origin of the gig economy is still being questioned. Even though it is difficult to calculate the gig economy's size (CIPD, 2017), the sharing economy or gig economy term has been studied widely in many fields, especially in business and economics (Sutherland & Jarrahi, 2018). The gig economy usually refers to short-term independent freelance work with an organisation (Kuhn, 2016). With technological advancement, the e-hailing company creates many opportunities for gig workers to work with them flexibly. Workers and firms in the independent labour market mostly choose independent work because of its flexibility. Due to rapid technological development, businesses are beginning to automate their production and processes online. The industry 4.0 revolution will ultimately impact various industries and force companies to better coordinate supply chains besides providing opportunities to serve clients. In order to create more opportunities in this sector, there should be enough demand in this industry. Demand in the gig economy, specifically e-hailing, is mainly contributed by the Millennial generation (Sethi, 2022). The contribution of Millennials to the gig economy is not only as users of the applications

but also as gig workers. According to Smith and Nichols (2015), Millennials are a group of people born between 1980 and 2000. They mostly use computers and digital technology daily, including reading news, playing games, social networking, and working. Parker (2017) states that some groups of Millennials have a preference for the gig economy. Millennials like flexibility in their work. Some studies relate Millennials to the gig economy because of this characteristic (Deloitte, 2017). Deloitte (2017) also stresses that one-third of the Millennials prefer freelance work rather than full-time employment.

The use of digital technology is a crucial element in the gig economy. Massolutions (2012) reveals that “there is an untapped potential for crowdsourcing companies in many industries. This situation will lead to an increase in the number of workers needed”. The rising technological advancements have led to the gig economy (Horney, 2016). According to Balaram et al. (2017), “the gig economy has experienced growth from both the push and pull factors that can influence people’s decision to be a part of this industry”. Economic growth means an increase in the real GDP led by the rise in national output and national income. Besides, it is also caused by two main factors: 1) an increase in aggregate supply and 2) an increase in aggregate demand (Pettinger, 2019). In the short term, economic growth is caused by the rise in aggregate demand (AD). If there is spare capacity in the economy, an increase in AD will cause a higher real GDP. However, long-term economic growth requires an increase in the long-run aggregate supply and aggregate demand. This paper focuses on the acceptance of e-hailing food delivery applications by Malaysia’s Millennials. E-hailing food delivery companies create job opportunities in the gig economy sector among Malaysians, especially during the COVID-19 pandemic (Bernama, 2020b). More job opportunities can be created if the e-hailing food delivery applications can attract new customers besides retaining current ones. This collaborative consumption is needed to help the country recover from this pandemic. This study is critical because there is limited research focusing on food delivery using e-hailing. Most of the studies focused more on the online marketplace and transportation e-hailing. During the COVID-19 outbreak in Malaysia, the Malaysian government implements MCO. During the MCO, citizens are not allowed to go out except for family leaders. Thus, food delivery takes place, and these on-demand services are rising. However, there is no empirical evidence that Malaysians are starting to accept the usage of this on-demand application. If there is a rise in demand during the COVID -19 outbreak, will Malaysians continue to use these services?

2.0 LITERATURE REVIEW

2.1 E-Hailing Food Delivery in Malaysia

Online food ordering systems are now entering a new stage. Previously, restaurants provided their online food ordering and delivery by themselves. Nowadays, food from restaurants can be ordered online through e-hailing food delivery applications. The e-hailing company provides an application or system to ease the consumers’ ordering and getting the food to their doorstep (Adithya et al., 2017). During the COVID-19 pandemic, the internet helps people connect and directly create awareness of the e-hailing food delivery applications (Dang et al., 2018). With the contactless delivery application during the COVID-19 pandemic, the adoption of e-hailing food delivery applications helps prevent the virus’s spreading. It helps to gain consumer trust, especially regarding food quality and hygiene (Rahim & Yunus, 2021). The rise in e-hailing food delivery applications creates many job opportunities for people, especially Millennials (Parker, 2017). Millennials are generally interested in working independently. As stated by Deloitte (2017), Millennials’ working preferences may differ of other generations previously. One-third of Millennials prefer working in the gig-economy environment rather than full-time employment. On the other hand, the emergence of the e-hailing food delivery system not only benefits consumers in getting food to their doorstep but also helps people that lost their income and jobless affected by the COVID-19 pandemic job opportunities. Therefore, it is crucial to examine the level of acceptance among Malaysians to adopt the e-hailing food delivery application in their daily activities. However, choosing a unified theory or model based on the study objectives is essential.

According to Rahim and Yunus (2021), people’s interest in using a specific e-hailing food delivery service will depend on their satisfaction with the system so that the company will have regular customers and encourage the consumers to use the system regularly. People need the motivation to perform a behaviour.

Arora et al. (2021) found that “Perceived Usefulness” and “Perceived Ease of Use” are the factors that influence the usage of e-hailing applications. When people believe that e-hailing applications will benefit them, they are more likely to use them. Besides, when people feel that e-hailing applications are easy to use, it motivates people to use the applications. Besides, other studies on e-hailing adoption also found that “Perceived Usefulness” and “Perceived Ease of Use” could motivate people to use the e-hailing applications (Arumugama et al., 2020; Giang et al., 2017; Haldar & Goel, 2019; Mallat et al., 2008; Peng et al., 2014; Ruangkanjanases & Techapoolphol, 2018; Schmitz et al., 2016; Suhud et al., 2019; Zhou et al., 2020). Based on this reason, this study proposes to adopt the Technology Acceptance Model (TAM) to see the acceptance of using e-hailing food delivery applications in Malaysia.

2.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was adapted from the Theory of Reasoned Action (TRA), fitted explicitly for modelling user acceptance of information systems (Davis et al. 1989). Ajzen and Fishbein developed TRA in 1975. TRA is among the first theories that serve as a foundation for many other theories, including TAM (Alshammari & Rosli, 2020). The theory identified two determinants of intention towards behaviour: attitude and subjective norm. It explains the technological acceptance of individual behaviour from the perspective of social psychology. Later, Davis et al. (1989) adapted the TRA theory and formed the Technology Acceptance Model (TAM). TAM has become a leading model in explaining and predicting system use (Vukovic & Pivac, 2019). TAM has been widely used in predicting and understanding the usage behaviour and intention to use in various fields, including consumer behaviour, consumer satisfaction and technology (Alshammari & Rosli, 2020). According to TAM, the behavioural intention to use technology is determined by two factors, which are perceived usefulness and perceived ease of use. Perceived Usefulness and Perceived Ease of Use are the primary constructs of this model. TAM has been used to test the degree of acceptance of a wide variety of technologies (Amoroso & Hunsinger, 2009). This study implemented the Technology Acceptance Model (TAM) Theory by Davis (1989) to examine the effect of perceived usefulness and perceived ease of use on the acceptance among Malaysians to use e-hailing food ordering applications. TAM is divided into four aspects: perceived usefulness, perceived ease of use, behavioural intention, and actual usage, as indicated in Figure 1.

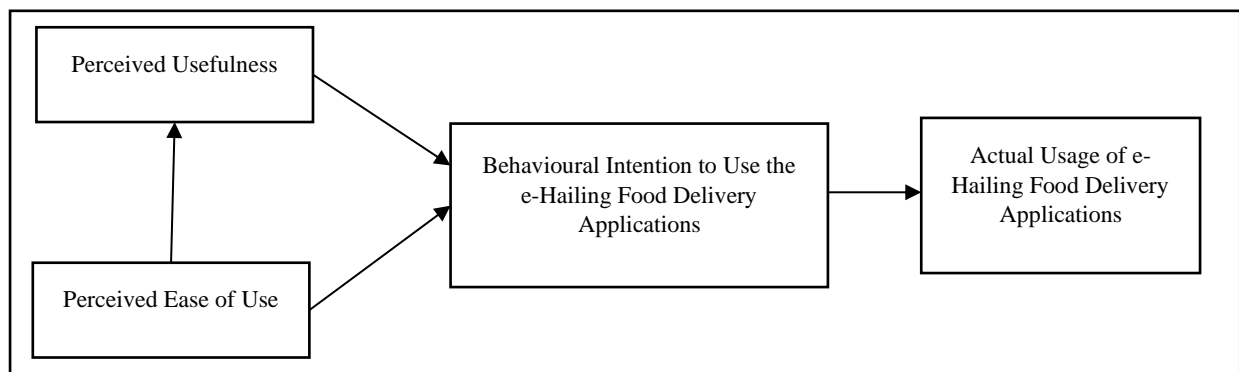


Figure 1: Research Model for e-Hailing Food Delivery Applications

2.1.1 Perceived Usefulness

According to Davis et al. (1989), perceived usefulness can be defined as the extent to which a person believes using technology will enhance individual productivity. Chin and Todd (1995) affirm that if a person believes the new technology will benefit them, they are more likely to use it. There are extensive researches that reveal that perceived usefulness is a strong determinant of user acceptance, adoption, and usage behaviour (Aljaaidi et al., 2020; Vukovic et al., 2019; Zhang et al., 2019; Mallya & Lakshminarayanan, 2017; Amin et al., 2015; Farahat, 2012; Suki & Ramayah, 2010; Park, 2009). It is assumed that the perceived usefulness of e-hailing food delivery applications will affect the intention to use e-hailing food delivery applications. Therefore, the following is hypothesised:

H₁: The perceived usefulness is positively associated with the intention to use of e-hailing food delivery applications.

2.1.2 Perceived Ease of Use

Perceived Ease of Use is the extent to which an individual believes using technology will be a free effort (Davis et al., 1989). Chin and Todd (1995) and many studies (Aljaaidi et al., 2020; Vukovic et al., 2019; Zhang et al., 2019; Mallya & Lakshminarayanan, 2017; Amin et al., 2015; Farahat, 2012; Suki & Ramayah, 2010; Park, 2009) also found that perceived ease of use has a positive effect on behavioural intention and perceived usefulness of a technology. It is assumed that the perceived ease of use of e-hailing food delivery applications will affect the intention to use e-hailing food delivery applications. Besides, it is also assumed that the perceived ease of use of e-hailing food delivery applications will affect the perceived usefulness of e-hailing food delivery applications. The following are hypothesised:

H₂: The perceived ease of use factor is positively associated with the intention to use of e-hailing food delivery applications.

H₃: The perceived ease of use factor is positively associated with the perceived usefulness factor.

2.1.3 Behavioural Intention to Use E-Hailing Food Delivery Applications

The first modified TAM by Davis (1989) includes behavioural intention as a new variable directly influenced by perceived usefulness. In the modified TAM, the attitude factor was eliminated from the constructs and led to the direct influence of perceived ease of use on behavioural intention (Davis & Venkatesh, 1996). The behavioural intention would also directly influence actual usage (Aljaaidi et al., 2020; Vukovic et al., 2019; Zhang et al., 2019; Mallya & Lakshminarayanan, 2017; Amin et al., 2015; Farahat, 2012; Suki & Ramayah, 2010; Park, 2009). It is assumed that a person who intends to use e-hailing food delivery applications may be highly motivated to use e-hailing food delivery applications. Therefore, the following are hypothesised:

H₄: Behavioral intention to use e-hailing food delivery applications is positively associated with the actual usage of e-hailing food delivery applications.

2.1.4 Actual Usage of E-Hailing Food Delivery Applications

Actual usage is measured by Davis (1989) by the frequency of use and the length of time of use. However, measuring the actual usage of e-hailing food delivery applications for this study is difficult. Many TAM studies remove usage as a dependent variable and only use behavioural intention or perceived usage. This paper uses perceived self-reported usage to measure the actual usage of e-hailing food delivery applications.

3.0 METHODOLOGY

3.1 Questionnaire Development

This study aims to understand the current acceptance of e-hailing food delivery applications among Malaysians using the Technology Acceptance Model (TAM). Therefore, the intention and actual usage of the e-hailing food delivery system among Malaysians needs to be examined. A set of questionnaire surveys was employed to measure the significant variables of this study. The questionnaire is divided into two main sections, including the respondents' profiles and the application of the technology acceptance model. The survey instrument is based on constructs validated by Davis (1989) and then adapted based on this study's context. This study's survey items include perceived usefulness, perceived ease of use, intention to use, and actual usage. All the questionnaire items are measured using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The survey instrument consists of seven items for perceived usefulness, six for perceived ease of use, five for intention to use, and three for actual usage. The survey items are presented in Table 1. The questionnaire items were then translated into the Malay language. A pilot study was performed with 40 respondents to ensure the validity of the questionnaires. The respondents of this study consist of people using e-hailing food delivery applications such as GrabFood, Food Panda, BungkusIt, and other e-hailing applications.

Table 1: Measurement Items of the Study

Factor	Item No.	Items
Perceived Usefulness	PU1	Using e-hailing food delivery applications enables me to find nearby available food more quickly than buying at a restaurant.
	PU2	Using e-hailing food delivery applications is more convenient than buying at a restaurant.
	PU3	Using e-hailing food delivery applications enables me to get my food faster than buying it at a restaurant.
	PU4	Using e-hailing food delivery applications enables me to make a choice efficiently.
	PU5	Using e-hailing food delivery applications saves my time, reflecting on my productivity in doing my daily task.
	PU6	Using e-hailing food delivery applications is a complimentary service to my lifestyle.
	PU7	In general, using e-hailing food delivery applications is useful to me.
Perceived Ease of Use	PE1	Learning to operate e-hailing food delivery applications would be easy for me.
	PE2	I would find it easy to get e-hailing food delivery applications to do what I want to do.
	PE3	I would find the e-hailing food delivery applications menu is very easy to navigate.
	PE4	I would find e-hailing food delivery applications to be flexible to interact with.
	PE5	It would be easy for me to become skilful at using e-hailing food delivery applications.
	PE6	E-hailing food delivery applications are easy to use. I can use it without a manual or explanation from the service provider.
Behavioural Intention to Use	BI1	I intend to begin/continue using e-hailing food delivery applications in the future.
	BI2	I will frequently use e-hailing food delivery applications in the future.
	BI3	I will recommend others to use e-hailing food delivery applications.
	BI4	I plan to use or continue using e-hailing food delivery applications in the future.
	BI5	I think that I will not use/continue using e-hailing food delivery applications in the future.
Actual Usage	AU1	I am frequently using e-hailing food delivery applications
	AU2	I use e-hailing food delivery applications periodically
	AU3	Online Food Ordering Application is currently available for me to use if I want to.

3.2 Data Analysis

The population of this study involves Malaysians who use e-hailing food delivery applications. It is hard to determine the population size of e-hailing food delivery application users due to the unavailability of the data. This study used a convenient sampling method to collect the data. This study employed the partial least square approach of structural equation modelling. Marcoulides and Saunders (2006) suggest that the minimum sample size required is determined based on the number of paths pointing to the latent variable. The sample size calculated using G*Power 3.1.9.6 software using effect size (f^2) of 0.15, power of $1 - \beta = .80$ and, alpha ($\alpha = .05$) or 95% confidence level. Therefore, the minimum sample size required for this study is 85 respondents (Figure 2). However, this study suggested a sample size of at least 100 when carrying out the path model (Hoyle, 1995; Wong, 2013).

This study used an online survey as a data collection method. The survey questionnaires were distributed online with a total number of 100 usable questionnaires. The online survey participants are Malaysians who are users of e-hailing food delivery applications. The online survey was conducted in August 2020. WhatsApp and Facebook applications were chosen to disseminate a link to the online survey due to their highest number of users. The participants were invited through the link to fill out the questionnaire via Google form. Filter questions were included to confirm that the respondents were users of e-hailing food delivery applications, ensuring that the data collected were from the e-hailing applications' users. The Technology Acceptance Model (TAM) approach was used for the analysis to capture the participants'

opinions and experiences of using e-hailing food delivery applications. All the data were then coded into Statistical Package for Social Science (SPSS) version 22.0. Data cleaning and data transformation were performed to identify any missing values and outliers. The reverse items used in the questionnaire were also re-coded. SPSS version 22.0 was applied to analyse the demographic information, length of e-hailing food delivery applications uses, and frequency usage of e-hailing food delivery applications. In order to test the hypotheses, SMART PLS 3.0 was used as a Structural Equation Modeling (SEM) tool. Besides, Smart PLS 3.0 was used to analyse the reliability and validity of the Technology Acceptance Model (TAM) constructs and correlation analysis.

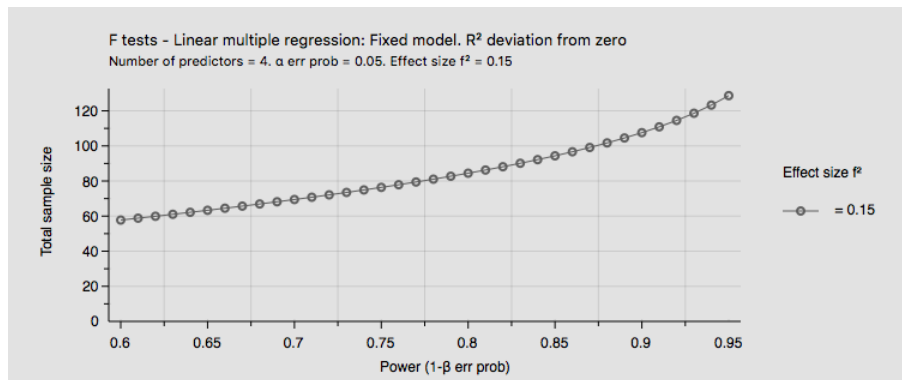


Figure 2: GPower Sample Size

3.3 Rationale For Choosing Partial Least Square Approach of The Structural Equation Modelling (PLS-SEM)

The Partial Least Square Structural Equation Modeling or PLS-SEM was developed by the Swedish econometrician Herman O.A. Wold (Wold, 1975, 1982 and 1985). The number of published articles using Partial Least Square Equation Structural Modelling (PLS-SEM) has significantly increased in recent years (Hair et al., 2017). This study employed the PLS-SEM to evaluate the acceptance of using e-hailing food delivery applications. PLS-SEM has been widely used for the past decade in many fields, including marketing and economy (Hair et al., 2012; Hair et al., 2019). PLS-SEM imposes less restrictive requirements and assumptions regarding large sample sizes and the normality of the data while conserving robustness in estimations (Cassel, Hackl, & Westlund, 1999; Reinartz et al., 2009; Richter et al., 2015). Structural equation modelling provides a flexible and comprehensive technique to research data and data analysis compared with any other statistical model (Hoyle, 1995). Besides, SEM takes hypothesis testing through a confirmatory approach, while other approaches make it difficult to test the hypothesis (Bryne, 2001). According to Bryne (2001), the SEM approach can assess the measurement error compared to other traditional approaches. Other than that, the traditional method of data analysis is only based on observed variables. SEM can incorporate both observed and unobserved variables.

SEM has gained attention among researchers, especially in using multiple observed variables to understand a study area (Schumake and Lomax, 2010). Moreover, there is greater recognition of the validity and reliability of the measurement scale. Besides, SEM can handle sophisticated theoretical models to understand complex phenomena instead of basic statistical techniques such as bivariate correlations, limiting to a small number of variables (Schumake and Lomax, 2010). Lastly, the availability of user-friendly software packages that require little technical knowledge about the method suits this study. Smart PLS 3.0 version was used to perform the analysis of this study.

4.0 RESULT AND DISCUSSION

4.1 Profile of The Respondents

The respondent's profile was examined based on frequency distribution and percentage. A total of 100 respondents completed the surveys within the sample frame, and the participants are Malaysians who use e-hailing food delivery applications. The gender profile is presented in Table 2. It shows that from a total of 100 respondents, 71% of the respondents are female, and 29% are male.

Table 2: Gender

Gender	Frequency	Percentage (%)
Male	29	29.0%
Female	71	71.0%
Total	100	100%

Table 3 shows the age group of respondents. The table shows that 50% of the respondents are between 20 to 30 years old, followed by 24% of the respondents below 20 years old. Besides, 23% of the respondents are between 31 and 40 years old, and only 3% are above 40. Most respondents are Millennials aged 20 to 30 years old, contributing 73% of the total.

Table 3: Age Group

Age	Frequency	Percentage (%)
below 20	24	24.0%
20 - 30	50	50.0%
31 - 40	23	23.0%
above 40	3	3.0%
Total	100	100.0%

The data shown in Table 4 shows that 48% of the respondents have been using e-hailing food delivery applications for one month to 6 months. Besides, 26% of the respondents have been using e-hailing food delivery applications for more than one year. 17% of the respondents have been using the applications for less than one month. Lastly, 9% of the respondents have been using the applications for 6 to 12 months. The data were collected from August until September 2020. Considering the Movement Control Order in Malaysia, which was enforced in mid of March 2020, shows that most of the respondents have started using e-hailing food delivery applications during the Movement Control Order (MCO). The table shows that 65% of the respondents who have been using e-hailing food delivery applications ranging from 6 months and below have taken the opportunity to use the applications during MCO.

Table 4: Length of Using e-Hailing Food Delivery Applications

Length of Stay	Frequency	Percentage (%)
less than a month	17	17.0%
within one month to 6 months	48	48.0%
within 6 months to 12 months	9	9.0%
more than one year	26	26.0%
Total	100	100.0%

Thus, the usage frequency of e-hailing food delivery applications among the respondents is presented in Table 5. 52% of respondents use e-hailing food delivery applications between 2 to 3 times a month. It is followed by 23% of respondents who use the applications once a week and 18% of respondents who use the e-hailing food delivery applications between 2 to 6 times a week. The rest of the respondents, about 7%, use the applications once or more daily.

Table 5: Usage Frequency of e-Hailing Food Delivery Applications

Frequency of Use	Frequency	Percentage (%)
Three times and below per month	52	52.0%
once a week	23	23.0%
2 - 6 times a week	18	18.0%
once or more per day	7	7.0%
Total	100	100.0%

4.2 Data Preparation

It is vital to assess the sample size adequacy, missing data treatment, outlier detection, normality and common method variance before evaluating the measurement and structural model. In terms of sample size adequacy, it achieves the minimum number of sample sizes required. In order to achieve the minimum of 80% statistical power for this study, a minimum of 85 respondents is needed. However, the actual data

were 100 respondents; therefore, the minimum 80% statistical power was achieved. It shows that with the 100-sample size, the SEM analysis can be meaningful. Besides, since the survey was conducted online, there is no missing data since all fields were marked as required. So, any incomplete response is automatically flagged, and the system only accepts complete responses so that the downloaded responses are complete and do not have any missing data. Since there are no missing data and miscoding, all cases remain from the collected data.

4.3 Reliability and Validity Analysis

All the reflective measurement models were found to meet the recommended criteria except for items PU1 and BI5. The factor loading values for PU1 (0.636) and BI5 (0.389) were below the value of 0.7, as suggested by Hair et al. (2010). The value of factor loading should be at least 0.7 to meet the minimum criteria. So, PU1 and BI5 factors were removed from the constructs.

Table 6 shows the constructs' factor loadings, AVE, Cronbach alpha, and CR values after removing PU1 and BI5 items. On the other hand, the convergent validity of structures has been tested by examining the average variance extracted (AVE). In order to suggest adequate convergent validity, Bagozzi and Yi (1988) suggest that the value of AVE should exceed 0.5. The result of this study shows that AVE values were above 0.50 for all constructs. Besides, Cronbach alpha and composite reliability (CR) values were also examined to see the internal consistency of all constructs in the model. According to Hair et al. (2010), the minimum value must be 0.7 for Cronbach alpha and composite reliability (CR) value. The Cronbach alpha and composite reliability values of all latent variables in the model for this study met the suggested value of more than 0.7, indicating that the measurement model possessed acceptable reliability. These results indicate that all measurement constructs exhibit sufficient levels of internal consistency reliability.

Table 6: Items and Reliability Analysis

Factor	Item No.	Loadings	CR	AVE	Cronbach Alpha (α)
Perceived Usefulness (PU)	PU2	0.794	0.910	0.629	0.882
	PU3	0.704			
	PU4	0.801			
	PU5	0.779			
	PU6	0.822			
	PU7	0.850			
Perceived Ease of Use (PE)	PE1	0.829	0.944	0.738	0.929
	PE2	0.840			
	PE3	0.901			
	PE4	0.892			
	PE5	0.882			
	PE6	0.806			
Behavioural Intention to Use (BI)	BI1	0.891	0.959	0.855	0.943
	BI2	0.932			
	BI3	0.926			
	BI4	0.948			
Actual Usage (AU)	AU1	0.984	0.982	0.948	0.973
	AU2	0.959			
	AU3	0.977			

Next, Heterotrait-Monotrait (HTMT) criterion was used to evaluate the discriminant validity. The result shows that all variables' paths were below the threshold of 0.90, except for the Perceived Usefulness to Behavioral Intention path with the value of 0.903, as per Table 7. However, this is still acceptable, as Godfrey et al. (2018) and Henseler et al. (2015) suggested that the HTMT value must be below 1. The results show that none of the HTMT confident intervals includes value 1, suggesting that all HTMT values are significantly different from 1. Besides, the correlations among indicators also show stronger value with constructs than across them. This result indicates that discriminant validity has been established for these constructs.

Table 7: Heterotrait-monotrait ratio (HTMT) values.

Variable	AU	BI	PE	PU
AU				
BI	0.358			
PE	0.422	0.835		
PU	0.283	0.903	0.831	

4.4 Correlations Analysis

Then, correlation analysis was tested to show the relationships among the Technology Acceptance Model (TAM) constructs. Table 8 shows that there are significant positive relationships between all constructs PU and BI (0.835), PE and BI (0.785), PE and PU (0.768), and BI and AU (0.348).

Table 8: Latent Variable Correlations

Latent Variables	AU	BI	PE	PU
AU	1.00	0.348	0.404	0.276
BI	0.348	1.00	0.785	0.835
PE	0.404	0.785	1.00	0.768
PU	0.276	0.835	0.768	1.00

4.5 Hypotheses Testing

The hypotheses testing was conducted to verify whether the structural model supports the conceptual model based on earlier hypotheses. There are four hypotheses analysed in this study. In order to determine the statistical significance of the path coefficient using t-values, the bootstrapping option was used to represent another nonparametric approach for estimating the precision of the PLS estimate (Chin, 1998). Ringle et al. (2005) suggested that the number of bootstrap samples was set to 5000. Table 9 shows the t-values of the bootstrap result.

Table 9: Path coefficient of the structural model and significance testing results.

Hypothesis	Path (Inner Model)	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	t-value	Significant?
H1	PU -> BI	0.565	0.573	0.069	8.252***	Yes
H2	PE -> BI	0.351	0.342	0.081	4.309***	Yes
H3	PE -> PU	0.768	0.778	0.043	17.838***	Yes
H4	BI -> AU	0.348	0.363	0.123	2.830***	Yes

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 9 shows the t-value of the hypothesised path of the constructs. The t-value for the hypothesised path of Perceived Usefulness and Behavioral Intention is 8.252, which is above 1.645 ($\alpha=0.001$). Therefore, H1 is supported by a positive relationship between Perceived Usefulness and Behavioural Intention. In line with previous studies (Aljaaidi et al., 2020; Vukovic et al., 2019; Zhang et al., 2019; Mallya & Lakshminarayanan, 2017; Amin et al., 2015; Farahat, 2012; Suki & Ramayah, 2010; Park, 2009), Perceived Usefulness is positively associated with Behavioural Intention. It means that most of the respondents will have a positive intention to use e-hailing food delivery applications when the application is useful for them. Moreover, Perceived Ease of Use and Behavioral Intention's hypothesised path is also statistically significant, with a t-value of 4.309, which is above 1.645. It means that the respondents are likely to use the e-hailing food delivery application when they feel it is easy to use. Therefore, H2 is supported. On the other hand, the significant t-value of the hypothesised path of Perceived Ease of Use and Perceived Usefulness is 17.838, which is more than the minimum value of 1.645. It also shows that the hypothesised path of Perceived Ease of Use and Perceived Usefulness of the inner model is statistically significant. Therefore, the H3 and H4 are also supported. Lastly, the hypothesised path of Behavioral Intention and

Actual Usage is also statistically significant, with a t-value of 2.830, higher than the 1.645 minimum value. It means that when the respondents intend to use e-hailing food delivery applications, their actual behaviour will align with their intention. Most previous studies also found that when people have a positive intention to perform a particular behaviour, they will perform the behaviour. Specifically, the results shown in Table 9 are consistent with previous studies that used Technological Acceptance Model (TAM) theory (Aljaaidi et al., 2020; Vukovic et al., 2019; Zhang et al., 2019; Mallya & Lakshminarayanan, 2017; Amin et al., 2015; Farahat, 2012; Suki & Ramayah, 2010; Park, 2009).

5.0 CONCLUSION

This study examines and explains the acceptance of e-hailing food delivery applications among Malaysians using the Technology Acceptance Model (TAM) approach. One hundred respondents participated in this study. Most of the respondents are Millennials that use e-hailing food delivery applications. 65% of the respondents started using the e-hailing food delivery applications within the Movement Control Order (MCO) enforcement time. Based on the findings of this study, it can be concluded that TAM constructs directly affect behavioural intention and actual usage of e-hailing food delivery applications in Malaysia. Perceived Usefulness and Perceived Ease of Use directly impact behavioural intention to use e-hailing food delivery applications, with a t-value of more than 1.96. Besides, there is also a significant relationship between Perceived Ease of Use and Perceived Usefulness and between Behavioral Intention to Use and Actual Usage of e-hailing food delivery applications. Even though the COVID-19 outbreak has been a health and economic crisis, some positive impacts can be considered. The gig economy is one of the sectors which is positively impacted by this health and economic crisis. Besides providing job opportunities, it is also shifting the way of consumer spending. The increase in demand in the gig economy, especially in the e-hailing sector, can help the government stimulate the economy through job opportunities and indirectly increase the GDP. There are some limitations found in this study. This study has a limited number of respondents. The inclusion of filter questions, such as whether the respondents are users of e-hailing food delivery applications or not, has reduced the number of samples. In the future, a higher number of respondents are needed, or a multi-group analysis may be required to compare the user and non-user behaviour in intention to use e-hailing food delivery applications.

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