Factors Influencing Consumers' Continuance Usage Intention towards Food Delivery Application: A Case Study in Kuang, Selangor, Malaysia

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Abstract
This study theoretically analyzes factors influencing consumers' continuance usage intention towards food delivery application in Kuang, Selangor using Unified Theory Acceptance and Use of Technology (UTAUT). The study was necessitated by food delivery application usage blooms during the Covid-19 pandemic. The study used quantitative techniques, and a sample survey of 456 Kuang's respondents who have experience in using food delivery applications were employed in this study; as a result, 404 responses were successfully gathered, representing 88.59 percent. In conducting the reliability and validity analysis, 378 responses were found to be fit to be used for further analysis, and 26 responses were eliminated due to the data-cleaning process. The finding reveals that performance expectancy was identified to have the strongest positive influence on consumers' intention to continually use food delivery applications, followed by social influence. This study is deemed important in understanding consumer behavior intention towards the usage of food delivery applications. This is invaluable to food operators as the world economy relies on information technology. In other words, the future of businesses was strongly believed to be dominated by information technology. In conclusion, this study has a role in improving food operators' service and profit.
Keywords: Food Delivery Application, UTAUT, Performance Expectancy, Social Influence, Continuance Usage Intention

Introduction
Marketing is one of the most effective techniques to attract consumers' attention. American Marketing Association (AMA) has stated that marketing is a method for sellers to build up a strong brand, enhance communication with consumers, and provide information and trade services or products to customers (Gundlach & Wilkie, 2009; Kuru, 2021). A business must put

marketing a priority in order to run a business, as sellers have always used marketing tools to facilitate business transactions. For that reason, entrepreneurs grasp various opportunities to enhance their marketing strategy. This is vital as the business environment is known to be aggressive, competitive, and full of obstacles. One eminent business method is to register them into various food delivery applications such as GrabFood, Foodpanda, ShopeeFood, Airasia Food, EASI (Hungry), Bungkusit, DeliverEat, LOLOL, GemSpot, Beep Delivery, Tapau, and OdaMakan. Hence, food delivery applications have gained popularity among consumers. The food delivery application is now a business trend around the world. The need for food delivery applications is blooming, making the food and beverage business market much more competitive. Lee et al (2019) postulated that a busy lifestyle is one of the main contributing factors for consumers choosing to use food delivery applications as this reduces waiting time and the need to commute from one place to another to buy food or beverage can be eliminated. The existence of food delivery applications also enhances food operators' reputation and brand (Lahap et al., 2016), and it is convenient and fast (Lee et al., 2017; Jain et al., 2020). In addition, food delivery applications assist customers as they do not have to leave their homes to purchase food or beverage during the peak of the Covid-19 crisis (Li et al., 2020; Zhao & Bacao, 2020). In this modern globalization, people's lifestyles change due to rapid economic growth. Putit et al (2016) opines that in digitalization, most food purchases are made online, as people are too busy to go to a restaurant or wait in a long queue as they have diminutive time to spend. Therefore, busy people are inclined to use food delivery applications to save time (Isa et al, 2021).

A study by Liu and Chen (2019) revealed that people who order takeout meals at least once a week were reported to use online food delivery because it allows them to stay home and enjoy the food and lifestyle (routine) they love without shopping and cooking. Therefore, it is irrefutable that online food delivery saves time otherwise spent on grocery shopping, cooking, and cleaning (Li et al., 2020). They added that the restaurant industry and food delivery eateries had grown exponentially recently. This is due to the development of information technology that contributes to the rapid transformation of food delivery services. Das and Ghose (2019) postulate that with the growing number of smartphone users coupled with various food delivery applications; as a result, food delivery application has become a trend for many. Furthermore, it was found that customers have shifted to food delivery service, because it offers an enormous number of restaurants and delicacies that customers can choose from (Ariffin et al., 2021).

Another issue arose when Malaysia and the world, in general, was hit by the Covid-19 pandemic, which caused millions of deaths and affected the livelihood of many peoples around the globe. According to Sharma et al (2020), anyone who has been exposed to the virus must be quarantined, while those who have tested positive for Covid-19 should be isolated in a special area. Moreover, a person who contracted the virus has to prevent themselves from social interaction, practicing self-quarantine, hospital quarantine, or being allocated to a local community confinement area; this measure will prevent the transmission of the virus to the public either through direct contact or airborne. Undergoing isolation without any assistance from others may cause a problem for them as they have difficulties getting food supplies (WHO, 2022). Therefore, due to the unpredictable and inadequate supply of food and beverage during the pandemic, the food business has taken drastic measures to sell and supply as to stay current with the unprecedented event, needs, wants, and accessibility to food (Isa et al., 2021).

Thus, people who are self-quarantined or undergoing isolation have contributed to the increase in food delivery application usage (BBC News, 2020; 2022). In relation to that, during the Covid-19 crisis, millions of people were traumatized and decided not to leave their homes; therefore, by using food delivery applications, they managed to ease their burden of getting the necessities. Several eating and food-related anxieties have risen due to the pandemic (Davis et al., 2020). Subsequently, consumers have slowly developed a negative perception of going outside to buy food and drinks as they feared contracting the virus.

As a result, this further contributes to long-term stress among consumers (Dishman, 2020). For that reason, consumers opt to install food or groceries application (apps) to prevent panic-buying and reduce fear of virus transmission (Zhong et al., 2021). According to Rodgers et al (2020), anxiety about the virus has caused consumers to be more concerned about the cleanliness of the food they ordered, as it can potentially spread the virus. In addition, they also commented that new eating behaviors emerge due to fear of leaving the house to buy food or as a result of the feeling of rejection towards particular foods or food categories because of contamination. Therefore, the study from Kim et al (2020) has found that due to consumers' low demand for food and avoidance of dining out, the pandemic has created a new trend or business model in the food and beverage business pipeline. There is a number of studies conducted by researchers on factors influencing the use of food delivery applications. For instance, research by Ramos (2021) highlighted that customer fear of the virus has significantly influenced Mexican food and beverage customers to continue using and intend to use the food delivery application repeatedly during the pandemic. Meanwhile, Lee, Sung, and Jeon (2019) studied the determinants of continuous intention in food delivery applications by extending Korea's Unified Theory Acceptance and Use of Technology (UTAUT) theory. Ramos (2021) suggest that there is a need for future research to focus on other areas of food delivery application study and towards the different geographical area (other countries).

In Malaysia, there are several studies conducted on food delivery applications (Idris et al., 2021; Rahim & Yunus, 2021); therefore, this study would like to extend the research that focuses on the food delivery application users in Kuang, Selangor Malaysia. This study examined the attributes of food delivery applications, such as performance expectancy, effort expectancy, and social influence that affect the consumers' continuance usage intention towards food delivery applications in Kuang, Selangor, by using the Unified Theory of Acceptance and Use of Technology (UTAUT). The adoptions of the theory in this study are deemed to be important as to assist in improving the usage of food delivery applications and to enhance food operator's revenue, thus contributing to healthy business profit.

Literature Review
Food Delivery Application (FDA)
A study by Zhao and Bacao (2020) suggested that using Food Delivery Application has gained high attention among food and beverage operators and consumers. As for customers, there are benefits of food delivery application as they can choose a large variety of food and drinks from various types of food delivery applications, and the uniqueness of FDA was that the food is delivered to the customer's doorsteps, this is in contrast to the conventional method where the customers have to go to the restaurant or foodservice themselves (time-consuming) (Ramos, 2021). Hirschberg et al (2016); Tandon et al (2021) agreed that consumers who used to buy food and beverages online would continuously and favorably use them for an

extended period. It was further argued that the food delivery application offers several benefits such as safety (as physical distancing is well-maintained), enhanced service offerings, and reduced waiting time (Liu & Wang, 2016; Li et al., 2020; Lahap et al., 2018). Hence, it can be contended that many reasons subconsciously influence the consumer's continuance usage intention.

Performance Expectancy

In a recent development, Muangmee et al (2021) posited that the degree of consumer trust (awareness) in the technological transformation was found to increase the performance of a certain task which is also known as performance expectancy in the Unified Theory Acceptance and Use of Technology (UTAUT) model. Ergo, the performance expectancy could be used to forecast whether customers would easily embrace new technology (Chaiyasoonthorn et al., 2019). Wei et al (2021) maintained that when the idea of performance expectancy is used in assessing consumers' acceptance intentions towards food delivery applications, it indicates that they are more likely to accept it. It was further discussed by Roh and Park (2019), as cited in Zhao and Bacao's (2020) studies, that customers expect the food delivery application to be user-friendly and have a stronger inclination to continue using them. In addition, Muangmee et al (2021) opined that consumers choose food delivery applications due to the convenience of having the ordered food delivered to their doorsteps at any time. Hence, Kupfer et al (2016) stated that performance expectancy is a significant indicator of behavioral intention since it is strongly intertwined. In line with that, a hypothesis is offered

H_1: There is a positive relationship between performance expectancy and consumers' continuance usage intention of food delivery applications.

Effort Expectancy

Another central variable in the Unified Theory Acceptance and Use of Technology (UTAUT) model is effort expectancy; it refers to the degree to which consumers are associated with using certain technologies (Muangmee et al., 2021). According to Sair and Danish (2018), effort expectancy is about predicting whether or not a technology will be used depending on how easily the food delivery application is used. Nevertheless, easy steps and various payment options provided make the food delivery application the most preferred choice by customers. However, several researchers have concluded that effort expectancy has a minimal direct influence to continue using mobile devices like online banking and shopping applications (Yuan, Liu, Yao & Liu, 2014; Chopdar & Sivakumar, 2019). This is because customers understand mobile technology better after their first adoption, and effort expectancy will no longer be able to predict their intentions (Zhao & Bacao, 2020). In contrast, Marinković et al. (2019) have found that effort expectancy significantly influences customer satisfaction while using mobile commerce applications.

H_2: There is a positive relationship between effort expectancy and consumers' continuance usage intention of food delivery applications.

Social Influence

The desire to explore or try new technologies due to the influence of family, friends, and colleagues is also known as a social influence (Muangmee et al., 2021). Peer reviews and their

experiences were among the contributing factors that led customers to use food delivery applications (Lee et al., 2019). Sair and Danish (2018) suggested that consumers' continuance usage intention was positively related to social influence. Similarly, Lai and Shi (2015) further confirmed that from the perspective of users who intend to continue using mobile technologies, social influence posed a key feature in the Unified Theory Acceptance and Use of Technology (UTAUT) model. The point of view received support from various scholars, including mobile social media (Zhou and Li, 2014; Ariffin et al., 2021), shopping applications (Chopdar & Kumar, 2019), and mobile payment systems (Zhao & Bacao, 2020). Furthermore, the number of users of food delivery applications increased due to social influence and the availability of food delivery application networks (Alaimo et al., 2020). Additionally, Roh and Park (2019) verified that social influence is the major predictor of consumers' desire to use an online-to-offline delivery service.

H$_3$: There is a positive relationship between social influence and consumers' continuance usage   intention of food delivery application.

Continuance Usage Intention

Consumers' continuance usage intention can be defined as consumers' desire to continuously use the product, service, or anything in the future. Bhattacherjee (2001), Bhattacherjee and Lin (2015); Alalwan (2020) stated that the decision to purchase repeatedly by consumers could be analogous to the intention of customers to use the technological product or service in the future continuously. Similarly, according to Fauzi (2019); Lee et al (2019), continuance usage intention is the desire to continue purchasing to buy the same brand, goods, or services again. Continuance intentions are a part of behavioral intention. Kupfer et al (2016) proposed that behavioral intention is also known as a measurement method to assess the probability of a person performing a particular action in the coming days, and it is the most significant aspect in predicting how people use technology. Customer's intention to continuously use new technology (apps) ultimately depends on the availability of the food delivery application, ease of use, less confusion, internet coverage, and service provider level of performance (Ambalov, 2018).

Unified Theory Acceptance and Use of Technology (UTAUT)

Unified Theory Acceptance and Use of Technology (UTAUT) is an extension of Venkatesh et al (2003) technology acceptance model (TAM); it is used to forecast users' behavioral intention in adopting technological innovations, which is related to the social cognition theory. In addition, UTAUT was used in various research to assess users' intentions to continue using mobile technology (Chopdar & Sivakumar, 2019; Marinkovic et al., 2019). According to Muangmee et al (2021), the UTAUT theory underlines the key variables that could impact consumers' behavior and acceptance: performance expectancy, effort expectancy, social influence, and facilitating conditions. In the same vein, Okumuset al (2018) proposed a conceptual model based on the UTAUT in a study on customer's intention to use mobile diet applications in the United States, which has shown that innovation moderates the relationships between UTAUT characteristics and the desire to utilize mobile diet applications. As a result, their findings generally validated the functions of performance expectancy, effort expectancy, and social influence. This study employed the UTAUT model to examine the factors affecting consumers' continuance usage intention toward food delivery applications in Kuang, Selangor.

Findings

Reliability and Validity Test

A total of 456 questionnaires were distributed to the potential respondents. A total of 404 responses were successfully collected, representing an 88.6 percent return rate. Fifty-two respondents (11.4%) were excluded from the samples as they did not fit the specific characteristic set by the researcher. Table 1 shows that the Cronbach Alpha value for the final data gathered shows that consumers' continuance usage intention (CCUI) with N=3 shows the highest Cronbach alpha value among the rest, which is at 0.931. Subsequently, social influence records 0.904, followed by performance expectancy, which is 0.876. Each variable is with N=3. Therefore, the variables were accepted and used as a tool in this study.

Table 1

Cronbach Alpha Value of final data

Instruments	Alpha Cronbach Value	Number of Item
Performance Expectancy	0.876	3
Social Influence	0.904	3
Consumers' Continuance Usage Intention (CCUI)	0.931	3

The population for this study is withdrawn from Kuang Selangor. The population of Kuang (Selangor) residents is 22,295 (Department of Statistics Malaysia, 2022). The residents aged 18 and above who live or work in Kuang and had experience using food delivery applications were selected as the study sample. A total of 378 responses were successfully collected, representing a 93.6 percent return rate via Email, Twitter, WhatsApp, Facebook, Telegram, and Instagram. In this study 6 sections were developed: the content of the questionnaire includes section A (screening questions); section B (demographic profile); section C [performance expectancy factor], section D [effort expectancy factor] (Lee et al., 2019; Ramos, 2021); section E [social influence factor] Lee et al (2019) and section F [consumers' continuance usage intention] (Cho et al., 2018). A pilot test was conducted on 30 respondents Table 2 shows the initial reliability test of 30 respondents. Most of the variables show a significant value, such as performance expectancy (0.685), social influence (0.868), and consumers' continuance usage intention (0.836). However, the lowest value is effort expectancy (0.479). Hence, effort expectancy was excluded in this study because the Cronbach Alpha value is below 0.5.

Table 2

Cronbach Alpha Value of Pilot Survey

Instruments	Alpha Cronbach Value	Number of Item
Performance Expectancy	0.685	3
Effort Expectancy	0.479	3
Social Influence	0.868	3
Consumers' Continuance Usage Intention (CCUI)	0.836	3

Demographic Analysis

Table 3 shows the demographic profile of respondents. Out of 404 respondents, there are 205 males (50.7%) and 199 females (49.3%). Next, the highest number of respondents are from 22

– 25 years old, which is 178 (44.1%), followed by 30 years and above, which is 87 (21.5%). Meanwhile, there are 85 respondents (21.0%) from 26 - 29 years old and 54 respondents (13.4%) from 18 - 21 years old. As for marital status, there are 265 single respondents (65.6%), and 139 respondents (34.4%) were married. Additionally, most of the respondents are students who are 131 (32.4%), followed by the private sector 109 (27.0%), government sector 70 (17.3%), self-employed 49 (12.1%), unemployed 24 (5.9%) and housewives 21 (5.2%). Besides, the highest respondents have a monthly income below RM1000, about 182 (45.0%). The second highest are those 126 (31.2%) respondents who get RM1001 – RM2500, followed by 63 (15.6%) respondents whose income is RM2501 - RM4000 and 33 (8.2%) respondents with RM4001 and above. Moreover, 119 (29.5%) respondents use food delivery application about 5 – 6 times, and 113 (28.0%) use the application above six times a month. Meanwhile, 91 (22.5%) respondents use the about 1 – 2 times, and 81 (20.0%) use the application 3 – 4 times a month.

Table 3
Demographic Profile of Respondents (N=404)

Demographic Variables	Details	Frequencies	Percentages
Gender	Male	205	50.7 %
	Female	199	49.3 %
Age	18 - 21 years old	54	13.4 %
	22 - 25 years old	178	44.1 %
	26 - 29 years old	85	21.0 %
	30 years old and above	87	21.5 %
Marital Status	Single	265	65.6 %
	Married	139	34.4 %
Occupation	Student	131	32.4 %
	Government sector	70	17.3 %
	Private sector	109	27.0 %
	Self-employed	49	12.1 %
	Unemployed	24	5.9 %
	Housewife	21	5.2 %
Monthly Income	Below RM1000	182	45.0 %
	RM1001 - RM2500	126	31.2 %
	RM2501 - RM4000	63	15.6 %
	RM4001 and above	33	8.2 %
Frequency of use for 1 month	1 - 2 times	91	22.5 %
	3 - 4 times	81	20.0 %
	5 - 6 times	119	29.5 %
	Above 6 times	113	28.0 %

Performance Expectancy
Table 4 depicts a descriptive analysis of performance expectancy toward consumers' continuance usage intention of food delivery applications. The analyses indicated that the highest mean score is "I find food delivery application useful in their daily life'' which scored 3.78 (SD= 0.495). It shows that food delivery application helps them in acquiring food. The

second highest score is "I can save effort in meal preparation," which scored 3.74 (SD= 0.567). The last item shows a lower mean score which is 3.73 (SD= 0.547).

Table 4
Descriptive analysis of performance expectancy towards consumers' continuance usage intention of food delivery application

Statement	N	Mean	S. D
1. I find food delivery application useful in my daily life	404	3.78	0.495
2. Using food delivery application increases my chances of purchasing food that are important to me	404	3.73	0.547
3. I can save effort in meal preparation	404	3.74	0.567

Social Influence
Based on the result presented in Table 5, the analysis revealed that the statement related to "People who are influential in my behavior think that it would be easier for me to use food delivery application" scored the highest mean of 3.66 (SD= 0.604). Meanwhile, "People whose opinions I value prefer that I use food delivery application for purchasing foods" scored 3.60 (SD= 0.632) and followed by "People who are important to me think that I should use food delivery application" scored 3.51 (SD= 0.770).

Table 5
Descriptive analysis of performance expectancy towards consumers' continuance usage intention of food delivery application

Statement	N	Mean	S. D
1. People who are important to me think that I should use a food delivery application	404	3.51	0.770
2. People who are influential in my behaviour think that it would be easier for me to use a food delivery application	404	3.66	0.604
3. People whose opinions I value prefer that I use a food delivery application for purchasing foods	404	3.60	0.632

Consumers' Continuance Usage Intention towards Food Delivery Application
Table 6. shows that the highest mean score is the statement "I intend to continue using food delivery application in the future," with a mean score of 3.77 (SD= 0.526), followed by "If I have an opportunity, I will order food through the delivery application" with 3.75 (SD= 0.569). The statement "I have decided to use food delivery application for purchasing foods the next time" has a lower score of 3.71 (SD=0.591).

Table 6
Descriptive analysis of consumers' continuance usage intention towards food delivery application

Statement	N	Mean	S. D
1. I intend to continue using food delivery applications in the future	404	3.77	0.526
2. If I have an opportunity, I will order food through the delivery application	404	3.75	0.569
3. I have decided to use a food delivery application for purchasing food the next time	404	3.71	0.591

Multiple Linear Regression
Results obtained in Table 7 indicate that when is R^2 (0.718) is taken into account, it shows that 72% of the consumers' continuance usage intention towards food delivery application is explained by the dimensions used in this study. The importance of each multiple linear regression indicates that performance expectancy and social influence positively influence consumers' continuance usage intention of food delivery applications. Based on the beta (β=0.473) and significant coefficient (p=0.000), it was the most significant construct that influenced this variable, and it has a positive statistical relationship with consumers' continuance usage intention. The same goes for the second variable, social influence, with the beta (β=0.444) and significant coefficient (p=0.000). It shows a significant relationship between social influence and consumers' continuance usage intention. Therefore, both H1 and H2 could be accepted as both variables had a positive influence on consumers' continuance usage intention of food delivery application

H_1: There is a positive relationship between performance expectancy towards consumers' continuance usage intention of food delivery applications (Accepted).
H_2: There is a positive relationship between social influence towards consumers' continuance usage intention of food delivery applications (Accepted).

Table 7
Results of Regression Analysis

Input factors	R^2	F	β	t	p
Performance Expectancy (PE)	0.718	510.772	0.473	12.613	0.000
Social Influence (SI)	0.718	510.772	0.444	11.824	0.000

Discussion
The study's findings add to the information about the food delivery application by offering evidence of consumer behaviour during the COVID-19 epidemic. It was found in the study that the two dimensions have a positive influence on consumers' continuance usage intention of food delivery applications. The two dimensions are known as performance expectancy and social influence. Thus, H_1 and H_2 were accepted as the two variables showing a strong relationship towards the consumers' continuance usage intention of food delivery application. The performance expectancy (H_1) is a crucial construct for the consumers' continuance usage

intention as it had the highest impact on this variable. On the other hand, the social influence (H_2) construct is in second place.

Regarding the performance expectation, the results are in accordance with Gunden et al (2020), as cited in Ramos (2021), who claimed that the most crucial aspect of a consumer's buying decisions using a food delivery application is when the food orders process can be handled quickly and efficiently. In addition, the findings of this study also coincide with the previous research that reveals consumers perceive many benefits in using food delivery applications (Roh & Park, 2018; Cho et al., 2018). Lee et al (2019) confirmed that food delivery applications could help minimise the time and effort needed to prepare meals. The findings are concurrent to Alalwan (2020) study suggesting that performance expectancy is the most influential attribute towards consumers' continuance usage intention of food delivery applications. It is believed that achieving customers' expectations is a significant element that encourages the continuance use of food delivery applications among consumers in the future. This study is in line with Lee et al (2019) affirmed that social influence positively impacted consumers' intentions to continue using the food delivery application. Additionally, they also discovered that peers and friends also influenced the consumers' continuance intention. However, the findings are not in line with Ariffin et al (2021) works, which stated that social influence is the most influential towards consumers' continuance usage intention of food delivery applications because of mass media factors, not the influence from peers and friends. Thus, this study disagrees because, based on the findings, the social influence construct only manages to get second place because peers and friends were found to influence consumers' decision-making.

Conclusion

In summary, this research has shown that various factors could influence the consumers' continuance usage intention towards food delivery applications in Kuang, Selangor. The pandemic has drastically changed the world business landscape, pushing everyone to embrace digitalization. This study is significant, and it contributed to the body of knowledge regarding food delivery application usage, and it has the capacity to assist researchers in the future. Moreover, consumers discovered that food delivery applications are useful as they helped them meet their needs for food purchases while keeping their social distance during the Covid-19 pandemic. Nonetheless, to save time and resources, innovative business transaction processes need to be improved or simplified from time to time. In conclusion, food operators need to be persistent in pursuing word-of-mouth marketing.

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