



ONLINE FOOD DELIVERY SERVICES USING ONLINE FOOD DELIVERY APPLICATION: GENERATION Y's ATTITUDE

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ABSTRACT

This study aims to address the gap in prior research by examining the factors influencing generation Y's attitude toward online food delivery services and purchase intention using online food delivery applications in Malaysia. Data were collected through an online survey where Google form is created and distributed through social media platforms such as WhatsApp, Facebook, and Instagram. The target respondents are generation Y consumers residing in Malaysia. A total of 200 questionnaires have been collected. Statistical Product and Service Solutions (SPSS) version 27 was applied to analyse the information from 200 qualified questionnaires. The result indicates four variables: effort expectancy, time-saving orientation, and social influence that positively impact generation Y's attitude toward online food delivery services. Generation Y's attitude towards online food delivery services has a positive impact on generation Y's purchase intention using online food delivery applications. However, the performance expectancy, price-saving orientation, and information quality does not positively impact generation Y's attitude towards online food delivery services. Age does not moderate the relationship between generation Y's attitudes toward online food delivery services and generation Y's purchase intentions using online food delivery applications in Malaysia. This research contributed additional information to prior studies in a similar area, of which only a handful are addressed from the Malaysian context. This study is also beneficial for future researchers, marketers, and businesses involved in food industry segments.

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1 INTRODUCTION

The Internet's gradual development has resulted in changes in human relationships and how products or services are marketed (Alalwan, 2020; Kułyk & Michałowska, 2016; Navimipour and Soltani, 2016). The proliferation of e-commerce websites, immediate payment systems, mobile payment systems and mobile commerce (m-commerce) applications contributes to the growth in internet usage as a platform for exchanging goods and services (Statista Reports, 2019). The increased prevalence of smartphones and the rise of internet service have driven the emergence of different food delivery applications (Ray et al., 2019) such as Foodpanda, GrabFood, Uber Eats and Zomato. Recently, food delivery applications that provide fast and effective online ordering and offline delivery services have gained popularity as online-to-offline mobile services that offer two-way advantages for catering businesses and consumers (Zhao and Bacao, 2020).

The food delivery application service providers are divided into two categories; restaurant-to-consumer delivery apps and platform-to-consumer delivery apps (Pandey et al., 2021). Restaurant-to-consumer delivery apps are self-provided food and deliver itself, such as McDonald's, Domino, and Pizza Hut. In contrast, platform-to-consumer delivery apps provide internet delivery services from partner restaurants that may not necessarily conduct delivery services themselves, such as Foodpanda, GrabFood, and DeliverEat. According to Rivera (2019), the delivery industry's adoption of online food delivery providers has risen to about 50 million consumers. According to Statista Reports (2019), the food delivery application income in China (38.4 billion US dollars) accounted for more than one-third of the global food delivery application's revenue (95.4 billion US dollars) in 2018. Furthermore, global food delivery application revenue grew to 107.4 billion US dollars in 2019 (Statista Reports, 2019) and is anticipated to surpass 164.5 billion US dollars by 2024, growing at a compound annual growth rate (CAGR) of 11.4 percent between 2019 and 2024 (IMARC, 2020).

Most people have turned to meal delivery apps in recent years due to the increased pace of life and the opportunity to explore new cuisines through the apps. Lau and Ng (2019) discovered that a meal delivery application is a handy option for many individuals, particularly on a hectic day. This is led by generation Y or Millennials, who are time-starved and convenience-seeking consumers. According to the Online on-demand food delivery services report, generation Y is the largest consumer segment using online meal delivery services with convenience and easy accessibility (Technavio, 2017). UBS's market research released that generation Y or millennials are a significant driver for online food delivery service providers to comprise 10 percent of the total foodservice market and bring a massive rise in online food delivery service from \$35 billion to \$365 billion 2030(Technavio, 2017). Food delivery services are also gaining popularity in Malaysia, owing to the growing popularity of food delivery apps (Pitchay et al., 2021). In Malaysia, the online food delivery market will continue to, reaching a market size of more than 319.1 million US dollars by 2026 (Acumen Research and Consulting, 2019).

The empirical study found that the seven constructs (performance expectancy, effort expectancy, time-saving orientation, price-saving orientation, information quality, social influence, and attitude toward online food delivery services) influence customers' intention to use online food delivery applications. Research from Muangmee et al. (2021) discovered a strong connection between performance expectation and intention to using online food delivery applications. According to Shaw and Sergueeva (2019), customers would develop a using intention when they see delivery application services, including

time savings, transaction speed, and various buy possibilities. Meanwhile, social influence and information quality are strongly connected with the desire to use the application (Ariffin et al., 2021). According to research from Tandon et al. (2021), purchase intention would be favorably linked with attitude. The research also carries out the effect of age as a moderate between attitudes and purchase intention using online food delivery applications (Pitchay et al., 2021). It has been discovered that age influences the relationship between attitudes and customers' intention using e-commerce (Wong et al 2020). Hence, this study investigates the factors influencing generation Y's attitude towards online food delivery services and purchase intention using online food delivery applications in Malaysia.

2 LITERATURE STUDY

2.1 Performance expectancy

The UTAUT model relates to a user's belief that technology will improve performance on particular activities. (Muangmee et al., 2021). Chaiyasoonthorn et al. (2019) state that the performance expectancy may be used to predict a user's propensity towards new technology adoption. It is mention that customers' perceptions of the essential utilities and advantages of utilizing new technology goods and services have been consistently shown to affect their behavioural intention and acceptance of innovative technology goods and services on a real-world basis (Shareef et al 2018). According to Alalwan, Dwivedi, Rana, and Algharabat (2018), people are more likely to utilise technology if they think it would assist them in doing their duties more effectively. Alalwan (2020) found that compliance with food delivery application performance expectancy was the most significant predictor of mobile satisfaction and desire to continue using it. Performance expectation was repeatedly shown to substantially impact users' behavioural intention to utilise technology in numerous studies and proved to be its greatest indication (Maruping et al., 2017). Performance expectation concept to evaluate consumers' acceptance intentions toward food delivery applications shows higher intents (Wei et al., 2021).

According to the research from Okumus et al. (2018), performance expectancy has a major influence on the customer's desire to utilize mobile food ordering applications in the mobile food ordering applications context. Furthermore, performance expectation is recognised as the primary element influencing customer acceptability in the mobile banking context. It directly correlates with consumer attitude and intention to utilise (Oliveira et al., 2014). This is consistent with previous research by Shaikh et al. (2018), who predicted that mobile banking's performance expectation would substantially impact attitudes and intention to use. In connection with this analysis, performance expectation is related to the attitude towards purchase intention using food delivery applications. Meanwhile, a different result is shown in Pitchay et al. (2021) research, which examines factors that influence customers' intention to utilise online meal delivery. The author mention that performance expectancy does not dictate the customer's attitude toward the services. One possible explanation for this mismatch is that consumers may have an unfavourable attitude toward the services since they fail to see online meal delivery applications as helpful for ordering food. Another explanation may be that they are unable to expedite the buying procedure by using meal delivery applications.

2.2 Effort expectancy

Another decisive variable in the UTAUT theory is effort expectancy, which relates to consumers' degree of using a particular technology. The effort expectancy may be used to forecast whether a technology will be used forever based on its perceived ease of use. (Muangmee et al., 2021). In previous research from Okumus et al. (2018), the intention to utilise a mobile food delivery application was influenced by effort expectancy. Consumers might perceive specific barriers to use technology in the early phases of new behaviour (Khechine et al., 2014). However, the perceived ease of use will become more important after they get used to the technology. Roh and Park (2019) discovered in their research, customers who perceive a low level of effort required to utilise the app are more likely to see it as helpful, thus increasing their purchase choice in terms of client adoption of food delivery applications.

According to research from Gunden et al. (2020), the most significant antecedents of purchase choice are the design of a food delivery application structure and its capacity to process customer online food orders promptly and effectively. Furthermore, Okumus et al. (2018) empirically show that effort expectancy substantially affects a customer's desire to using mobile food ordering applications in the context of the mobile meal ordering application. Based on the result, effort expectancy has a critical role in the feeling of the consumer. Furthermore, Shaikh et al. (2018) mention that effort expectation directly correlates with customer attitude, implying that effort expectancy contributes to developing a favourable consumer attitude toward m-banking services in the mobile banking context. In connection with this analysis, effort expectation relates to the attitude towards purchase intention using food delivery applications.

However, Pitchay et al. (2021) study revealed that effort expectancy had no significant effect on consumers' attitudes towards purchase intention using food delivery applications. This is because customers think that their interactions with online meal delivery apps would be confusing or challenging to comprehend and that learning to use the applications will take time. As a result, the intention to utilise the apps decreases.

2.3 Time-saving orientation

Due to the hurried lifestyles of recent years, many people have developed an aversion to the work involved in finding food and waiting for it at restaurants. They would want that food to be served to them effortlessly and as quickly as feasible (Yeo et al., 2017). One of the most important factors affecting people's decision to purchase online is the ability to save time. (Khalil, 2014). Consumers believe that the simpler an app can be used, the more time it can save them or the faster it can be utilized (Prabowo and Nugroho, 2018). This is consistent with (Yeo et al., 2017) in that it clearly conveys to customers that the shopping experience is more desired when the software is easy to use. Thus, it is discovered that consumer attitude and intention to utilise the system are related to time-saving orientation. There are similar findings have been reported in studies conducted in other contexts. For example, online food delivery services are more convenient and user-friendly than traditional systems because customer orders can be readily seen and logged through a smartphone application or website (Maimaiti et al., 2018).

Moreover, Ganapathi (2015) found that time savings had a substantial favourable impact on behavioural intention to use online purchasing. There is the same result from Pitchay et al. (2021) study. The findings show that a time-saving orientation favourably influences attitudes toward online food delivery services. This demonstrates that customers' favourable attitudes about online food delivery services are driven by want to

minimise traffic and wait times at restaurants and save time by utilising the apps, saving time via use the apps, and boosting their willingness to use online meal delivery applications. Hence, time-saving orientation will affect the attitude towards purchase intention using online meal delivery applications.

2.4 Price-saving orientation

The capacity to gain economic advantages is the price-saving orientation (Escobar-Rodríguez and Carvajal-Trujillo, 2014). Price-saving orientation has been used to predict information systems used in several settings (Gupta and Arora, 2017), including hospitality and tourism (Escobar-Rodríguez and Carvajal-Trujillo, 2014), and highly relevant with online food delivery services.

Prior research indicated that price savings would imply lower costs for consumers who purchase goods and services on the website (Jung et al., 2014). According to Yeo et al. (2017) research, consumers may compare costs through different apps and websites. Therefore, companies that can provide a lower price will be regarded as the most effective platform in another context. According to Alalwan (2020), a food delivery application has no monetary cost, and there is no extra cost to be paid by installing a free app (Shaw and Sergueeva, 2019). Nonetheless, customers may benefit from significant financial savings via loyalty programs or perceived benefits such as discounts (Koiri et al., 2019). Availability of comparable pricing, discount offers, and simplicity of choice are among the food delivery applications elements responsible for processing demand, signals, and price variations (Jain et al., 2020). According to Market Watch (2019), enticing discounts, incentives, and cashback boost the popularity of food delivery applications. Thus, price-saving orientation with influence customer's attitude towards their purchase intention using food delivery applications.

There is the same result in the research by Pitchay et al. (2021). The result shows that price saving orientation has a favourable impact on attitude towards online food delivery services. Additionally, it increases their likelihood of using online food delivery apps. A potential reason is that consumers would appreciate online food delivery applications more if the applications provided them with a more excellent value for money.

2.5 Information quality

The most basic communication capability between an online buyer and vendor is information quality and it is a critical element in establishing trust (Kim and Park, 2013). People's perceptions of the quality of the information provided on the system are referred to as information quality (Ghasemaghaei and Hassanein, 2019). Furthermore, it is linked to system performance evaluation since it provides information about the system's quality (Freeze et al., 2019).

According to a review of the research on technological adoption, confidence in information is a reliable predictor of behavioural intention (Yadav et al., 2016). Security and trust influence user choices when interacting with technology (El-Masri et al., 2017). When faced with large quantities of online information of varied trustworthiness, consumers put a premium on information quality. Their shopping experience and willingness to purchase products and services online will be influenced by the availability or absence of quality information (Ghasemaghaei and Hassanein, 2016). There is numerous research showing that information quality influences consumer attitude towards intention to use. For example, Escobar-Rodríguez and Carvajal-Trujillo (2014) proposed that the quality of information had a favourable effect on the intention to utilise

by strengthening customers' trusting attitude in the context of e-commerce. Furthermore, it is critical in the context of online clothing retailers to offer high-quality information to their customers since a satisfied customer is more likely to buy a product online than one who is dissatisfied with the information supplied in the system (Fanoberova and Kuczkowska, 2016). Accordingly, the information quality will indirectly affect the consumer's attitude towards purchase intention of using the food delivery applications. There is the same result in the research by Pitchay et al. (2021). The study shows that information quality has a favourable impact on attitudes about online food delivery services. The study's findings indicate that if customers believe they would get precise and reliable information from meal delivery apps, this may inspire their attitude and boost their desire to utilise online meal delivery applications.

2.6 Social influence

Social influence is a term that relates to an individual's social reference group's positive or unfavourable attitude toward technology, which includes family, friends, and peers, as well as the individual's anticipation of receiving recognition or acceptance. (Wei et al., 2021). People seem to engage in a behaviour that has been examined and is considered usual while interacting with others (Chen et al., 2018). According to (Roh and Park, 2019), social influence significantly predicts customers' propensity to use an online-to-offline delivery service. In addition, previous research has shown that social impact is a significant predictor of technology adoption (Dwivedi et al., 2019) and directly influences system usage (Jeng and Tzeng, 2012).

According to Alaimo et al. (2020), the development of mobile social networks has increased the societal influence exerted on the adoption of new mobile technologies, particularly food delivery applications. Numerous researches have established that social influence has a favourable effect on customers' intents, and this finding has been confirmed in a variety of domains, including mobile diet apps (Okumus et al., 2018), mobile commerce (Macedo et al., 2017), and near-field communication mobile payments (Merhi et al., 2019). Furthermore, numerous researches have shown the critical importance of social influence. For example, Verkijika (2018) discovered that social influence is essential in determining a customer's propensity to use mobile commerce apps in South Africa. Furthermore, in the context of mobile diet apps, Okumus et al. (2018) discovered that social influence is essential in determining United States consumers' propensity to use mobile diet apps. Chen et al. (2018) also discovered a strong connection in another research setting in which social impact influenced attitude favourably. Accordingly, the social influence will influence consumers' attitudes and intention to utilise the meal delivery applications.

The study of Pitchay et al. (2021) shows the same result. The finding indicates that social influence has a favourable impact on customer perceptions about online meal delivery services. The consumer would be happy about service if their peers influenced them. They may believe that feedback on food purchases from other app users is critical. This may have affected their views of the service and their future willingness to utilise online meal delivery apps.

2.7 Attitude toward online food delivery service

According to Setiyawati and Haryanto (2016), attitude demonstrates that personal views of particular behaviours may be either positive or negative when it affects behaviour. When it comes to the acceptability of mobile services, attitudes have been repeatedly

proven as a highly predictive factor of intention to use (Chen et al., 2018). Furthermore, customers are more inclined to have a favourable attitude about technology if they profit from it (Hwang et al., 2019).

Prior research has thoroughly investigated the relationship between attitude and purchase intention (Lechuga Sancho et al., 2020) in a variety of settings, including purchasing green apparel (Dhir et al., 2021) and food delivery application consumption (Belanche et al., 2020). For example, Belanche et al. (2020) discovered that attitude substantially affected intention to use meal delivery applications. Furthermore, similar findings have been reported in studies conducted in other contexts. For example, attitudes toward mobile banking applications have been shown to increase intention to utilise, and similar results have been made in the context of web-based commerce (Chen et al., 2018). Furthermore, Dhir et al. (2021) discovered that an individual's environmental attitude substantially impacts their desire to purchase environmentally friendly apparel. Thus, consistent with previous research, consumers' attitudes had a favourable and substantial impact on their purchase intention using meal delivery applications.

The study by Pitchay et al. (2021) shows the same result. This may result from the consumers' attitude toward the service and the importance placed on the assistance provided by online food delivery apps in terms of food selection and encourages consumers to utilise the online meal delivery application. Therefore, one's attitude toward online meal delivery services positively affects one's desire to utilise online meal delivery apps.

2.8 The moderating role of age

Users' age may influence customers' attitudes and intentions to use. For example, younger users, who are de facto, more experienced with newly introduced technology, and more receptive to innovative solutions would face fewer adaptation challenges than older users and view food delivery applications as applicable.

Previous research indicates that Adolescents and youth have substantially different adoption rates and intentions to utilise technology than the general population, particularly when it comes to mobile services such as text messaging, internet use, mobile commerce, and online shopping (Lian et al., 2014). In the mobile banking context, Chawla and Joshi (2018) performed research in India to see whether demographic factors affect mobile banking service uptake and found that trust, ease of use, and lifestyle differed substantially among age groups. It also mentions that youthful consumers prefer mobile banking, while older customers prefer traditional physical banking (Hwang et al., 2019).

Furthermore, the academic literature suggests that age has a negative impact on teachers' intentions to use technology (Sanchez-Mena et al., 2017). In the luxury brand purchase behaviour context, Ajitha and Sivakumar (2019) discovered that the impact of social functions varies significantly across target groups. In contrast, attitudinal functions are relevant across all age groups, while value-expressive and social-adjustive attitudes vary regarding luxury brand purchasing behavior between younger and older generations. Accordingly, consistent with previous research, consumers' age moderated their attitude and purchase intention using food delivery applications. Meanwhile, there is a different result in the research by Pitchay et al. (2021). The study results show that age does not moderate the relationship between consumer attitude and intention to utilise an online food delivery service. Therefore, age differences in consumer use of online meal delivery applications may not affect their desire to utilise and attitude towards the service.

3 RESEARCH METHOD

3.1 Target population

The target population is the whole population that requires information and makes judgments (Kabir,2016). The target population for this field study is Malaysians. This study targeted generation Y in Malaysia as the respondents for the survey. It is belief that online food delivery outperforms the entire dine-in restaurant industry's development due to shifting customer lifestyles and the millennial population (MarketersMedia, 2019). A study also mentioned that generation Y is the primary driver of food delivery services since they spend the most significant proportion of their expenditures on food delivery services compared to other generations (Reddy and Aradhya, 2020). Therefore, the target population in this study is generation Y, who often use food delivery services and food delivery applications in Malaysia.

3.2 Sampling method and sampling frame

The non-probability sampling was chosen as the sampling technique in this research since it focuses on generation Y in Malaysia as the target respondents. This approach minimizes bias and sample error in data collection, resulting in greater accuracy and consistent results (Rahi,2017). The type of non-probability sampling used in this research is convenience sampling, which implies that samples are chosen from the targeted population only because they are conveniently accessible (Rahi,2017). This sample was selected, and the data is gathered through an internet survey. Respondents are volunteers who agree to participate in this survey by completing the survey form produced using Google Form. This form will be distributed through social media platforms such as WhatsApp, Instagram, and Facebook. This study collected 200 respondents in Malaysia.

This study uses 40 items to measure the variable involved. In section A, there are six items. In section B, there are 25 items that measure eight constructs: performance expectancy, effort expectancy, time-saving orientation, price-saving orientation, information quality, social influence. There are eight items that will be measure attitude towards online food delivery services and purchase intention using online food delivery applications in section C. There are three questions for price-saving orientation, four questions for effort expectancy, information quality, time-saving orientation, attitude towards online food delivery services, and purchase intention using food delivery applications. Other than that, there are five questions for performance expectancy and social influence. The sample size of this study will target 200 respondents to answer the questionnaire of the research. Meanwhile, Generation Y who are 21 years old to 41 years old in Malaysia has been chosen as the sample respondents to answer the research questionnaire.

3.3 Data collection method

The researcher uses Google Form for online surveys to make data gathering more accessible and convenient for responders. The researcher distributed form on social media platforms such as WhatsApp, Facebook, and Instagram. A convenience sampling method was used to gather data from target respondents.

3.4 Data analysis method

Statistical analysis and numerical comparison were used to analyse the data using (SPSS) version 27. It used for statistical analysis used in this study to perform factor analysis, reliability analysis, correlation analysis, multiple regression analysis, and moderator analysis.

4 DATA ANALYSIS AND FINDINGS

4.1 Demographic analysis

The study has investigated the age of the respondents as this main study target in generation Y. There were four groups of categories of age which were 21 to 25 years old which account for 138 people (69.0%), 26 to 30 years old, which account of 43 peoples (21.5%), 31 to 35 years old which account of 10 peoples (5.0%) and 26 to 41 years old which account of 9 peoples (4.5%). The result shows that the respondents aged between 21 to 25 contributed for the highest proportion among 200 respondents, which is 139 people 69.5%. On the other hand, the least of respondents are age group 26 to 41, which achieved only 9 with 4.5% respectively. Females contributed 60%, while males contributed 40% of the sample.

Malay respondents account for 31 people (15.5%), Chinese respondents account for 125 peoples (62.5%), Indian respondents account for 15 people (7.5%), Indigenous Sabah respondents account for 20 peoples (10%), and Indigenous Sarawak respondents account for 9 peoples (4.5%). The result shows that the Chinese respondents have the highest percentage from the ethnic of respondents with 62.5% of the respondents.

The level of education obtained by the respondents for study includes SPM and below, STPM/College diploma, Bachelor's degree, Master's degree, and Doctoral degree (PHD). Respondents for SPM and below have 37 people (18.5%) STPM/College diploma have 60 peoples (30%), Bachelor's degree has 99 peoples (49.5%), Master's degree has 3 peoples (1.5%) and doctoral degree have 1 people (0.5%). Overall, Bachelor's degree holders have the highest percentage from the highest level of education obtained of respondents with 49.5%. This research includes five respondents' occupation categories: government sector, private sector, student, unemployed, and others. Respondents who are in government sector have 7 people (3.5%), private sector have 87 people (43.5%), student have 93 people (46.5%), unemployed have 11 people (5.5%), and other have 2 people (1%). The result shows that most respondents' occupation is a student with 46.5% of the overall respondents.

There are four types of monthly income for respondents included in this research: less than RM1000, RM1001 to RM2000, RM2001 to RM3000, and more than RM3001. Respondents who are in the group of less than RM1000 monthly income about 106 people (53%), respondents who are in the group of RM1001 to RM2000 monthly income about 25 people (12.5%), respondents who are in the group of RM2001 to RM3000 about 54 people (27%) and respondents who in the group of more than RM3001 monthly income about 15 people (7.5%). The result shows that most respondents in the group of less than RM1000 monthly income with 53% and the least respondents in the group are more than RM30001 monthly income with 7.5%.

The study also investigated respondents' frequency use of online food delivery applications per month. Table 1 shows that 101 people (50.5%) use 1 to 3 times online food delivery applications per month, while 71 people (35.5%) use 4 to 6 times per month on online food delivery applications. Next, 20 people (10%) use 7 to 9 times online food

delivery applications per month. The least frequency use for respondents using online food delivery applications per month is 10 to 12 times, and more than 12 times there are only have 4 people (2.0%) and 4 people (2.0%) respectively

Table 1: Profile of respondents

Variables	Category	Frequency	Percentage %
Age	21-25	138	69.0
	26-30	43	21.5
	31-35	10	5.0
	36-41	9	4.5
Gender	Female	120	60.0
	Male	80	40.0
Ethnic	Malay	31	15.5
	Chinese	125	62.5
	Indian	15	7.5
	Indigenous Sabah	20	10.0
	Indigenous Sarawak	9	4.5
Highest Level Of Education Obtained	SPM and Below	37	18.5
	STPM/College Diploma	60	30.0
	Bachelor's Degree	99	49.5
	Master's Degree	3	1.5
Occupation	Doctoral Degree	1	0.5
	Government Sector	7	3.5
	Private Sector	87	43.5
	Student	93	46.5
	Unemployed	11	5.5
Monthly Income	Other	2	1.0
	Less Than RM 1000	106	53.0
	RM 1001-RM2000	25	12.5
	RM2001-RM3000	54	27.0
Frequency use of online food delivery application Permonth	More than RM3001	15	7.5
	1-3	101	50.5
	4-6	71	35.5
	7-9	20	10.0
	10-12	4	2.0
	More than 12	4	2.0

4.2 Reliability analysis

Cronbach's alpha is a measure of internal consistency of a test or scale, that is, how closely related a set of items are as a group (Tavakol, M., & Dennick, R., 2011). It is considered as an indicator of the reliability of the scale. The result shown in Table 2, where the overall value of Cronbach's alpha is higher than 0.6 indicated the high internal consistency in the questionnaire's set of data, while alpha greater than 0.7 was sufficient to consider no further scale development was needed. (Cortina, 1993).

The reliability of a coefficient of Cronbach's alpha lower than 0.6 is categorized as questionable or low reliability (Cortina, 1993). Follow by the range of the coefficient of Cronbach's alpha between 0.70 to 0.79, questionable reliability is acceptable (Cortina, 1993). For the good reliability of coefficient Cronbach's alpha is in the range of 0.80 to 0.89 while more than 0.90 is categorized as excellent reliability (Khairul, Shuhaida, and Latif, 2018). Based on the Table above, Cronbach's alpha value for, trust (0.757), information availability (0.777), and enjoyment (0.788) show that all factors from the

research are in reliability categorize while for site quality is (0.679), and perceived usefulness (0.632) is considered as questionable.

Table 2: Reliability analysis

Construct	Cronbach's Alpha	Coefficient of Cronbach's Alpha	Reliability Level
Site Quality	0.679	0.60 - 0.69	Questionable
Trust	0.757	0.70 - 0.79	Acceptable
Perceived Usefulness	0.632	0.60 - 0.69	Questionable
Information Availability	0.777	0.70 - 0.79	Acceptable
Enjoyment	0.788	0.70 - 0.79	Acceptable

4.3 Correlation matrix

The implementation of correlation analysis technique was used to find the strength of association between two variables where it implements whether the dependency of one variable over the other variable exists or not (Santhanakrishnan, 2017). In this case, correlation of coefficient (r) gives the strength of significant relation between two variables where it varies the range from -1 to +1. According to Schober, Boer, and Schwarte (2018), the correlation of coefficient (r) value ranges from 0.90 to 1.00 interpretes as very strong correlation, the value from 0.70 to 0.89 is considered strong correlation, the value from 0.40 to 0.69 indicates as moderate correlation, the value from 0.10 to 0.39 interpretes as weak correlation and the value from 0.00 to 0.10 is considered negligible correlation.

Table 3: Correlation analysis

Correlations					
	Site Quality	Trust	Perceived Usefulness	Information Availability	Enjoyment
Site Quality	1				
Trust	0.659**	1			
Perceived Usefulness	0.446**	0.502**	1		
Information Availability	0.437**	0.466**	0.475**	1	
Enjoyment	0.409**	0.536**	0.413**	0.507**	1
Mean	4.7183	4.6983	4.7817	4.7513	4.7338
SD	0.39270	0.44029	0.35459	0.43446	0.42465

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 has shown the correlation matrix that containing Pearson correlations Site quality has a positive correlation with other factors, strong positive correlation with trust (r=0.659, p<0.001), medium positive correlation with perceived usefulness (r=0.446, p<0.001), Information availability (r=0.437, p<0.001), and enjoyment (r=.409, p<0.001).

The correlation between enjoyment and perceived usefulness is a strong positive correlation with accounted for (r=0.536, p<0.001) and (r=0.502, p<0.001) respectively but it has a medium positive correlation with information availability. For Perceived usefulness, it has medium positive correlation with both information availability (r=0.475, p<0.001) and enjoyment (r=0.413, p<0.001). Lastly, the correlation between information availability and enjoyment was strong with (r=0.507, p<0.001).

5 REGRESSION ANALYSIS

5.1 Multiple regression analysis of site quality

Table 4 shows the multiple regression analysis of consumer repurchase intention with the independent variables of site quality. Overall, the R² indicated 0.247, which means that 24% variation of consumer repurchase intention explained by the site quality in the model. Regard H1 which stipulates the significant relationship between consumer repurchase intention and site quality, the relationship was found to have statistically significant at 0.05 level ($\beta = 0.497$, t-value = 8.070, p = 0.000). The p-value is < 0.05 and t-value > 1.96. Thus, the result supported H1 and confirmed a significant relationship of consumer repurchase intention on site quality. Besides that, security has a standardized beta coefficient of 0.497 in this model. This indicated that site quality is important to increase the impact on consumer repurchase intention. With each 1-unit increase in the site quality, the consumer repurchase intention will increase by 0.497 units.

Table 4: Multiple regression analysis of site quality

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	0.497 ^a	0.247	0.244	0.36445					
a. Predictors: (Constant), SQ									
b. Dependent Variable: PI									
Model		Unstandardized Coefficients		Coefficients ^a		t	Sig.	Collinearity Statistics	
		B	Std. Error	Standardized Coefficients	Beta			Tolerance	VIF
1	(Constant)	2.193	0.311			7.039	0.000		
	SQ	0.531	0.066	0.497		8.070	0.000	1.000	1.000
a. Dependent Variable: PI									

Table 5: Multiple regression analysis of trust

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	0.536 ^a	0.287	0.283	0.35479					
a. Predictors: (Constant), T									
b. Dependent Variable: PI									
Model		Unstandardized Coefficients		Coefficients ^a		t	Sig.	Collinearity Statistics	
		B	Std. Error	Standardized Coefficients	Beta			Tolerance	VIF
1	(Constant)	2.302	0.270			8.542	0.000		
	T	0.510	0.057	0.536		8.924	0.000	1.000	1.000
a. Dependent Variable: PI									

5.2 Multiple regression analysis of trust

Table 5 shows the multiple regression analysis of consumer repurchase intention with the independent variables of trust. Overall, the R² indicated 0.287, which means that 28% variation of consumer repurchase intention explained by the trust in the model. Regard

H2 which stipulates the significant relationship between consumer repurchase intention and trust, the relationship was found to have statistically significant at 0.01 level ($\beta = 0.536$, $t\text{-value} = 8.924$, $p = 0.000$). The p -value is < 0.05 and $t\text{-value} > 1.96$. Thus, the result supported H2 and confirmed a significant relationship of consumer repurchase intention on trust. The standardized beta coefficients of trust to consumer repurchase intention was 0.536, which means that increase each 1-unit in the trust, the consumer repurchase intention will increase by 0.536 units.

5.3 Multiple regression analysis of perceived usefulness

Table 6 shows the multiple regression analysis of consumer repurchase intention with the independent variables of perceived usefulness. Overall, the R^2 indicated 0.170, which means that 17% variation of consumer repurchase intention explained by the perceived usefulness in the model. Regard H3 which stipulates the significant relationship between consumer repurchase intention and perceived usefulness, the relationship was found to have statistically significant at 0.01 level ($\beta = 0.413$, $t\text{-value} = 6.378$, $p = 0.000$). The p -value is < 0.05 and t value > 1.96 . Thus, the result supported H3 and confirmed a significant relationship of consumer repurchase intention on perceived usefulness. Furthermore, the standardized beta coefficients of perceived usefulness which was 0.413 has proven that perceived usefulness has a critical relationship on consumer repurchase intention with each 1-unit increase in the perceived usefulness, the consumer repurchase intention will increase by 0.413 units.

Table 6: Multiple regression analysis of perceived usefulness

Model Summary ^b							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.413 ^a	.170	.166	.38266			
a. Predictors: (Constant), PU							
b. Dependent Variable: PI							
Model		Coefficients ^a					
		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta		Tolerance	VIF
1	(Constant)	2.365	.367		6.447	.000	
	PU	.488	.076	.413	6.378	.000	1.000 1.000
a. Dependent Variable: PI							

5.4 Multiple regression analysis of information availability

Table 7 shows the multiple regression analysis of consumer repurchase intention with the independent variables of information availability. Overall, the R^2 indicated 0.332, which means that 33% variation of consumer repurchase intention explained by the information availability in the model. Regard H4 which stipulates the significant relationship between consumer repurchase intention and information availability, the relationship was found to have statistically significant at 0.01 level ($\beta = 0.577$, $t\text{-value} = 9.928$, $p = 0.000$). The p -value is < 0.05 and t value > 1.96 . Thus, the result supported H4 and confirmed a significant relationship of consumer repurchase intention on information availability. Besides, information availability has a standardized beta coefficient of 0.577 in this model. This indicated that information availability is important to increase the impact on

consumer repurchase intention. With each 1-unit increase in the information availability, the consumer repurchase intention will increase by 0.577 units.

Table 7: Multiple regression analysis of information availability

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	0.577 ^a	0.332	0.329	0.34328					
a. Predictors: (Constant), IA									
b. Dependent Variable: PI									
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	2.055	0.267			7.691	0.000		
	PU	0.556	0.056	0.577		9.928	0.000	1.000	1.000
a. Dependent Variable: PI									

5.5 Multiple regression analysis of enjoyment

Table 8 shows the multiple regression analysis of consumer repurchase intention with the independent variables of enjoyment. Overall, the R2 indicated 0.429, which means that 42% variation of consumer repurchase intention explained by the enjoyment in the model. Regard H5 which stipulates the significant relationship between consumer repurchase intention and enjoyment, the relationship was found to have statistically at 0.01 level ($\beta = 0.655$, t-value = 12.205, p = 0.000). The p-value is < 0.05 and t value > 1.96. Thus, the result supported H5 and confirmed a significant relationship of consumer repurchase intention on enjoyment.

In addition, the standardized beta coefficients of enjoyment which was 0.655 has proven that enjoyment has a critical relationship on consumer repurchase intention with each 1-unit increase in the enjoyment, the consumer repurchase intention will increase by 0.655 units.

Table 8: Multiple regression analysis of enjoyment

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	0.655 ^a	0.429	0.426	0.31738					
a. Predictors: (Constant), E									
b. Dependent Variable: PI									
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	1.636	0.252			6.499	0.000		
	E	0.647	0.053	0.655		12.205	0.000	1.000	1.000
a. Dependent Variable: PI									

5.6 The result of hypotheses

Table 9 has shown the summary of the result of hypotheses. H1, H2, H3, H4, and H5 were supported. Enjoyment is the most important element to increase consumer repurchase intention because it has the highest standardized beta coefficient ($\beta = 0.655$).

Next, the lowest standardized beta coefficient goes to perceived usefulness with only ($\beta = 0.413$).

Table 9: The result of hypotheses

Hypothesis	Path	β	t-value	p-value	Result
H1	SQ-PI	0.497	8.070	0.000	Supported
H2	T-PI	0.536	8.542	0.000	Supported
H3	PU-PI	0.413	6.378	0.000	Supported
H4	IA-PI	0.577	9.928	0.000	Supported
H5	E-PI	0.655	12.205	0.000	Supported

This research indicated that site quality and trust have a significant relationship to consumer repurchase intention, hence, H1 and H2 are accepted. The perceived usefulness also has a significant relationship to consumer repurchase intention, hence H3 was accepted. From the information availability and enjoyment perspective, both show a significant effect on consumer repurchase intention, hence H4 and H5 are also accepted. In this research, information availability and enjoyment strongly influence on the consumer repurchase intention. In contrast, site quality and perceived usefulness shown less influence on consumer repurchase intention among young consumers in Malaysia toward online shopping.

6 DISCUSSION

6.1 Discussion on major findings

6.1.1 Performance expectancy has a positive impact on generation Y's attitude towards online food delivery services.

The result implies that the performance expectancy does not positively impact generation Y's attitude towards online food delivery services ($p=0.083$). Hence, H1 was rejected. The study on the impact of performance expectancy does not positively impact attitude towards online food delivery services was proven and confirm with the past studies. Findings from Pitchay et al. (2021) found that performance expectancy does not dictate the customer's attitude toward the services provided.

6.1.2 Effort expectancy has a positive impact on generation Y's attitude towards online food delivery services.

The finding indicated that effort expectancy positively impacts generation Y's attitude towards online food delivery services ($p=0.025$). Therefore, H2 is supported. Although this finding was in line with previous studies, the researcher found that effort expectancy substantially affects a customer's desire to use mobile food ordering applications in the mobile food ordering application (Okumus et al.,2018). On the other hand, this finding contradicts previous research by Pitchay et al. (2021). It could be the customer's attitude is such that they believe their engagement with online meal delivery apps would be difficult to comprehend or that learning to use the applications will take time. As a result, the likelihood of using the apps decreases. However, a previous study indicated that effort expectancy plays a critical role in the consumer's feelings. In fact, this finding was supported by literature by Shaikh et al. (2018) proposed that effort expectation directly correlates with customer attitude implying that effort expectancy contributes to the development of a favourable consumer attitude.

6.1.3 Time-saving orientation has a positive impact on generation Y's attitude towards online food delivery services.

The finding indicated that timesaving positively impacts generation Y's attitude towards online food delivery services ($p=0.00$). Hence, H3 is supported. The previous finding indicated that consumer attitude and intention to utilise the system are related to time-saving orientation (Yeo et al., 2017). Meanwhile, results from Ganapathi (2015) found that time saving had a substantial favourable impact on behavioural intention to use. This finding also supported by the literature where Pitchay et al.(2021) proposed that a time-saving orientation favourably influences attitudes toward online food delivery services. This is because customers' can reduce traffic and wait times at restaurants, thus increasing their intention to utilise online meal delivery applications and improve a favourable attitude in online meal delivery services.

6.1.4 Price-saving orientation has a positive impact on generation Y's attitude towards online food delivery services.

As implied from the result, the price-saving orientation does not positively impact attitude towards online food delivery services ($p=0.166$). Hence, H4 is rejected. However, this result is inconsistent with previous literature by Market Watch (2019) and Pitchay et al. (2021). The enticing discounts, incentives, and cashback does not increase the popularity of food delivery applications. The possible reason may be consumers will use online food delivery apps due to the increased pace of life and also the opportunity to explore new cuisines through the applications, not focus on the apps will provide them with better value for money. As a result, this implies that the customer's attitude toward the services is not compelled by price-saving orientation.

6.1.5 Information quality has a positive impact on generation Y's attitude towards online food delivery services.

The finding indicated that the information quality orientation does not positively impact generation Y's attitude towards online food delivery services ($p=0.541$). Therefore, H5 is rejected. This result is inconsistent with previous literature by Ghasemaghaei and Hassanein (2016) that found that consumer's shopping experience and willingness to purchase will be influenced by the availability or absence of information quality. Furthermore, the findings contradict the previous finding by Escobar-Rodriguez and Carvajal-Trujillo (2014) proposed that information quality had a favourable influence on the intention to utilise by strengthening customers' trusting attitude. Meanwhile, this finding does not align with the previous study by Pitchay et al. (2021). Therefore, it could be the precise and reliable information from food delivery apps may not inspire their attitude and boost their desire to utilise online meal delivery applications.

6.1.6 Social influence has a positive impact on generation Y's attitude towards online food delivery services.

The finding indicated that social influence positively impacts attitude towards online food delivery services ($p=0.000$). Hence, H6 is supported. The finding on the impact of social influence positively impact attitude towards online food delivery services was proven and conform with the past studies. This finding is supported by the literature where Okumus et al. (2018) proposed that social influence is essential in determining consumers' propensity to use. Meanwhile, the previous study indicated a strong connection in which social impact influenced attitude favourably (Chen et al.,2018) and customer perceptions

about online food delivery services Pitchay et al. (2021). This give understanding that consumers would be satisfied with the service if their peers influenced them, also feedback on food purchases from other app users. Thus, social influence affected their views of the service and their future willingness to utilise online food delivery apps.

6.1.7 Generation Y's attitude towards online food delivery services has a positive impact on generation Y's purchase intention using online food delivery applications in Malaysia.

As implied from the result, generation Y's attitude towards online food delivery services has a positive impact on generation Y's purchase intention using online food delivery applications in Malaysia ($p=0.000$). Hence, H7 is supported. This finding was in line with previous studies, and the researcher found that attitude substantially affected intention to utilise food delivery applications (Belanche et al.,2020). Findings from Pitchay et al. (2021) found that attitude towards online food delivery services has positive impacts on intention to utilise online meal delivery applications. Thus, consumers' attitudes had a favourable and substantial effect on their purchase intention using online meal delivery applications.

6.1.8 Age will moderate the relationship between generation Y's attitude towards online food delivery services and generation Y's purchase intention using online food delivery applications in Malaysia.

The finding indicated that age did not moderate the relationship between generation Y's attitude towards online food delivery services and generation Y's purchase intention using online food delivery applications in Malaysia ($p=0.275$). This finding supported by Pitchay et al.(2021) proposed that age does not moderate the relationship between consumer attitude and intention to utilise online food delivery services. Hence, H7 is rejected. Although, this finding contradicts previous research by Sanchez-Mena et al. (2017) proposed that value-expressive and social-adjustive attitudes vary between younger and older generations. Therefore, age disparities in consumer use of online meal delivery applications may not affect intention to utilise and attitude about the service.

6.2 Research implication

According to the study, effort expectancy positively impacted generation Y's attitude towards online food delivery services. Therefore, marketers, advertisers, restaurant owners and food delivery service providers should concentrate on enhancing effort expectancy. First of all, restaurant owners and food delivery service providers should provide user-friendly and able to offer adequate information about a restaurant on the online food delivery applications. The food delivery applications must be simple to use so that potential customers can quickly discover and place orders for the food items on display. Users may be more receptive to and adopt user-friendly technologies because most consumers want adaptable, helpful, and simple technology. Next, restaurant owners and food delivery service providers could develop effective social media marketing strategies to establish a trustworthy food delivery applications' reputation and indirectly enhance consumers' attitudes toward intention to use the applications.

For time-saving orientation, all parties should focus on time-saving orientation to encourage customers to use online meal delivery applications. Food delivery service providers must guarantee that food reaches its customers within an acceptable time frame. Restaurant owners and food delivery service providers should make sure all menus should

be neatly sorted to make it easier for consumers to choose food and beverages in a more time-efficient manner. Furthermore, social influence was found to positively impacts attitudes towards online food delivery services. Marketers should emphasize building an excellent reputation to obtain good feedback from users and promote and increase user's attitudes towards using online food delivery applications. Meanwhile, all parties could develop advertisements through various social media platforms and focus on customers who are likely to share an experience from prior usage. This would entice prospective users to utilise the applications and increase users' awareness of the food delivery applications. Therefore, marketers, advertisers, restaurant owners and food delivery service providers should build a thriving substantial customer base of online food delivery services and applications by concentrating on effort expectancy, time-saving orientation, and social influence.

6.3 Limitation of the research

This study focuses on factors influencing generation Y's attitude towards online food delivery services and generation Y's purchase intention using online food delivery applications in Malaysia. There are several limitations that should be identified since constraints may reduce the accuracy and validity of the findings. The first limitation is using convenient sampling techniques to obtain the data. The drawback of this sampling method may be biased, and the result is extremely susceptible to selection bias and uncontrollable of the researcher. There is a high level of sampling error because some respondents may be pressed for time or may try to conceal their true feelings do not provide accurate responses on the questionnaires.

The second limitation is the language used to create the questionnaires. The comprehensive questionnaires were developed in the English language, and this may cause respondent's misunderstanding or not understanding because some respondents may only comprehend other languages than English. Therefore, a high level of result error occurs to reflect the whole target respondents of individuals who used meal delivery applications in Malaysia since respondents who were unable to understand English were omitted. Next, this research is done with the emphasis on all online food delivery applications in general and without focusing on a different type of online food delivery application such as restaurant-to-consumer delivery applications or platform-to-consumer delivery applications. As a result, it will be challenging to determine if this study is relevant to each type of application.

Last and not least, this research only focused on Malaysian regarding online food delivery service and purchase intention using the online meal delivery applications. This result may not be relevant in other countries. Further study is required to investigate the factor influencing generation Y purchase intention using online food delivery applications in the context of different types of meal delivery applications and countries.

6.4 Recommendation for future research

There are some recommendations provided to future research to gain a better knowledge and for future relevant studies. Firstly, a researcher could replace convenience sampling with probability sampling. Probability sampling can avoid biased results and systematic error since all probability sampling techniques allow for an unbiased selection of sample groups. This can help researchers gain more accurate results in future research.

Second, researchers could adopt different languages in questionnaires. For example, the Malay language can add on into the questionnaire distributed. This may increase the

understanding of target respondents who can only comprehend one of the languages being used. Next, researchers can identify the type of online food delivery applications that should be examining. It could help the researcher to understand the primary reasons for respondents using restaurant-to-consumer delivery applications or platform-to-consumer delivery applications regarding online meal delivery service and purchase intention using the online food delivery applications.

Finally, researchers should include consumers from various nations, including foreign customers who have stayed in Malaysia to broaden the study result's scope. Besides, Researchers may also perform comparative investigations in selected countries that are higher using online food delivery applications because it allows researchers to understand why customers lack the use of online food delivery applications. Cultural variations across nations may be studied from the standpoints of habits, preferences, and situational variables.

7 CONCLUSION

This study has successfully fulfilled the research objective that examines the significant influence of performance expectancy, effort expectancy, time-saving orientation, price-saving orientation, information quality, social impact on generation Y's attitude toward online food delivery services. The online food delivery services significantly influence generation Y's purchase intention using online food delivery applications. Furthermore, the age as a moderator of the relationship between generation Y's attitudes towards online food delivery services. Time-saving orientation and social influence are the essential factors that impact generation Y's attitude towards online food delivery services and purchase intention using the applications. This research also addressed the implications and limitations and recommended future researchers interested in doing similar research. Subsequently, this research is beneficial for future researchers, marketers, businesses involved in food industry segments.

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