International Journal of Tourism & Hospitality in Asia Pasific (IJTHAP)
Vol. 7 No. 2, pp.141-154, June, 2024
E-ISSN: 2654-7945 P-ISSN: 2685-8800
https://www.ejournal.aibpmjournals.com/index.php/IJTHAP

Utilizing Artificial Intelligence (AI) in Customer's Purchase Intentions on Online Food Delivery Service

Rosmelisa Yusof[1], Loke Kean Koay[2], Thevisri Ravi[3], Yee Teng Teoh[4], Mun Yee Thin[5], Tiffany Audrey Anak Donold[6], Nur Aini Raudhatul Jannah[7], Prachi Mittal[8], Rishabh Srivastava[9], Daisy Mui Hung Kee[10]
Universiti Sains Malaysia, Minden 11800, Pulau Minang, Malaysia[1,2,3,4,5,6,10]
Universitas Brawijaya, Kota Malang 65145, Indonesia[7]
IMS Engineering College, Uttar Pradesh, 201015, India[8,9]
Corresponding Author: thevisri12@student.usm.my

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE
Yusof, R., Koay, L. K., Ravi, T., Teoh, Y. T., Thin, M. Y., …, & Kee, D. M. H. (2024). Utilizing Artificial Intelligence (AI) in customer's purchase intentions on online food delivery service. *International Journal of Tourism & Hospitality in Asia Pasific*, *7*(2), 141-154.

DOI:
https://doi.org/10.32535/ijthap.v7i2.3212

Received: 17 April 2024
Accepted: 18 May 2024
Published: 20 June 2024

ABSTRACT

Generally, food delivery services like GrabFood act as couriers, transporting consumer needs from restaurants or stores directly to their doorsteps. The rise of Artificial Intelligence (AI) has further revolutionized this convenience, allowing people to order meals and other goods from the comfort of their homes. This research investigates how AI is utilized to influence customer purchase intentions on GrabFood. The study examines the impact of six independent variables: instant food delivery, estimated delivery time, customized food recommendations, interactivity, cashless payment methods, and consumer behavior. These variables are analyzed in relation to the dependent variable – the customer's intention to use GrabFood. To gather data, an online survey was conducted with 100 respondents. The collected data was then verified using SPSS software. The findings revealed that delivery speed is a key driver, with both instant delivery and estimated delivery time showing a significant positive correlation (β = 0.457) with purchase intention. However, other features like personalized recommendations (β = 0.174), cashless payment methods (β = 0.119), and user interaction (β = -0.188) did not significantly impact user decisions. These findings require further exploration to understand user preferences for these features.

Keywords: Artificial Intelligence (AI); Consumer Behavior; Cashless Payment; Online Food Delivery; Purchase Intention

International Journal of Tourism & Hospitality in Asia Pasific (IJTHAP)
Vol. 7 No. 2, pp.141-154, June, 2024
E-ISSN: 2654-7945 P-ISSN: 2685-8800
https://www.ejournal.aibpmjournals.com/index.php/IJTHAP

INTRODUCTION

In today's rapidly evolving technological landscape, the integration of artificial intelligence (AI) stands at the forefront, shaping various industries and revolutionizing conventional business models. The fourth industrial revolution has witnessed AI's ascension, leveraging the availability of extensive data, robust computing capabilities, and advanced algorithms to drive substantial value creation across diverse sectors (Mhlanga, 2021).

AI, as defined by Hassani et al. (2020), embodies intelligent systems capable of data utilization, analysis, and execution of tasks without explicit programming instructions. This transformative technology harnesses vast and complex datasets, condensing them into manageable scales, thereby offering insights pivotal for informed decision-making and operational support (Hassani et al., 2020). The capability of AI to extract actionable insights from immense data repositories underscores its potential to augment decision-making processes and bolster operational efficiency across industries.

The impact of AI is particularly evident in sectors undergoing digital transformation, such as e-commerce and food delivery services (Sima et al., 2020). The rise of food delivery platforms can be attributed to their convenience factor, making them a perfect solution for busy professionals juggling work and mealtimes (Aryani et al., 2022). GrabFood, a prominent Southeast Asian food delivery service, has embarked on harnessing AI to elevate its user experience and augment consumer purchase intentions. As a subsidiary of Grab Holdings Inc., a multinational technology company operating across Southeast Asia, GrabFood has emerged as a reliable and efficient platform for delivering delectable meals from nearby restaurants directly to customers' doorsteps. Founded in 2012 by Tan Hooi Ling and Anthony Tan, GrabFood has continually strived to adapt to technological advancements to enhance its service offerings.

The strategic integration of AI into GrabFood's operational framework underscores its commitment to leveraging technological innovations to optimize the consumer experience. AI-driven systems within GrabFood enable the generation of personalized recommendations, identification of consumption patterns, and enhancement of user experience by analyzing extensive customer data (Cao, 2021). For instance, AI-powered chatbots facilitate real-time customer support, while machine learning algorithms predict user behavior to curate relevant product recommendations (Campbell et al., 2020).

At its core, GrabFood serves as a conduit connecting customers with nearby restaurants, fostering convenience and accessibility through its user-friendly app. The platform has always been dedicated to bridging the gap between users and their desired services. When customers utilize the GrabFood app to place orders, the platform seamlessly processes the order, forwards it to the restaurant, and assigns a delivery partner to fulfill the delivery, ensuring a smooth and efficient process. With the incorporation of AI technologies, GrabFood aims to further enhance this experience by delivering personalized and practical solutions to its users.

The integration of AI technology into GrabFood's operations enables the platform to offer highly personalized and targeted product recommendations to its customers. By leveraging customer data, including preferences, order history, and timing, AI algorithms can analyze and predict consumer behavior, providing recommendations that are tailored to individual tastes and preferences. This personalized approach enhances the likelihood of successful transactions, as customers are more likely to engage with products that are specifically curated to meet their needs. Furthermore, AI-driven analyses of customer feedback and reviews allow GrabFood to identify areas for improvement and tailor the consumer experience to meet evolving needs. By leveraging

this data, GrabFood can refine its services to better meet the needs of its customers, ultimately driving increased customer satisfaction and loyalty.

The utilization of AI empowers GrabFood to offer a more seamless and efficient customer experience, as AI algorithms can analyze and process vast amounts of data in real-time. This enables GrabFood to provide customers with accurate and timely product recommendations, as well as personalized promotions and offers. Additionally, AI-driven analytics can help GrabFood to identify trends and patterns in customer behavior, allowing the platform to adjust its offerings and marketing strategies to better meet the needs of its customers. By leveraging AI to improve the customer experience, GrabFood can establish a strong reputation in the market and differentiate itself from competitors.

Existing research indicates the pivotal role of consumer purchase intention in driving the adoption and utilization of GrabFood's ordering services (Pyae, 2022). However, considering GrabFood's prolonged use of AI technology, there exists a compelling need to delve deeper into public perceptions and preferences regarding the integration of AI within GrabFood's ecosystem. This study endeavors to gather insights into the public's views concerning AI-enabled features, including instant food delivery, accurate delivery time estimation, customized food recommendations, cashless payment methods, consumer behavior patterns, and their subsequent impact on consumer intentions to use GrabFood.

The primary objective of this research is to investigate the potential impact of various criteria on the public's decision-making process when selecting online food purchases through GrabFood. By gathering feedback and opinions from users, this study aims to shed light on the significance of AI-driven features in shaping consumer choices within the digital food delivery landscape. This is crucial, as the rise of online food delivery platforms has led to an increasingly competitive market, where consumers have a wide range of options to choose from. By understanding the factors that influence consumer decisions, GrabFood can refine its services to better meet the needs and preferences of its users, ultimately driving business growth and success.

As the technological landscape continues to evolve and AI applications proliferate across industries, this research endeavors to provide valuable insights into the public's perceptions, preferences, and expectations regarding the integration of AI within GrabFood's services. By gaining a deeper understanding of consumer sentiments, this study aims to contribute to the refinement and optimization of GrabFood's AI-powered features, ultimately enhancing the platform's value proposition and fostering increased user satisfaction and engagement. This is particularly important, as AI-driven features have the potential to revolutionize the online food delivery experience, offering personalized recommendations, improved order tracking, and enhanced customer service. By leveraging AI to improve the user experience, GrabFood can differentiate itself from competitors and establish a strong reputation in the market.

LITERATURE REVIEW

Customer Intention to Use GrabFood

Customer intention is defined as the thoughts that direct the consumer to choose buy or attract to a particular event. According to research, the result shows that the consumers using the food delivery application, based on their economic exchange, social exchange, and mutual interests, influenced the customer perceived equity which means the loyalty intention towards the brand (Ahn, 2022). Based on another research that was made in Malaysia in 2021, shows that the customer intention or consumer intention is to use a food delivery app when their favorite restaurant or the restaurant that is available

provides their food liking (Pitchay et al., 2022). Other than that, research that was done in relation to using food app delivery during COVID-19, shows that consumer intends to use the food delivery app to take care of their own health and their own perception towards the food app's delivery (Poon & Tung, 2024).

In addition, the customer's intention to use GrabFood is where the customer's preference in buying and using the application of GrabFood. This shows that the customer is not forced to use the food application of GrabFood by any third parties. The customer will stay loyal to the food app delivery when it satisfies their needs. Thus, the study aims to examine the causes such as the instant delivery of food, estimation of delivery time, customized recommendations on food, and cashless payment which could be the reasons that influence the customer's intention to use GrabFood. In addition, the purpose of this research is to investigate whether instant delivery of food, estimation of delivery time, customized recommendations on food, and cashless payment would affect the customer's intention to use GrabFood.

Instant Delivery of Food

In an urban area in the country, the delivery service is popular among the citizens due to the need for the delivery of goods and services. This instant delivery also allows doorstep delivery. Instant delivery means between 1 hour to 15 minutes from the moment the customer places the order (Stuart, 2023). Instant delivery is usually based on the universal truth of speed which means when they are giving their opinion, the community or people would choose to get the goods or food as soon as possible rather than waiting for hours (Mikul, 2021). According to a survey conducted by Nelson's IQ, around 61% of the participants prefer instant delivery or in other words, getting their goods as soon as they order them (Chaudry, 2022). A survey conducted by PwC in 2021 also showed that fast delivery or instant delivery ranked first when it comes to online purchases of food and goods which at the same time ranked third by 41% among the respondents (PwC, 2021). The instant delivery of food means the time taken to deliver the food should be a minimum time of 15 to 30 minutes prior to the preparation of the food and the traffic faced by the rider before delivering the food to the customer. This study shows the implications of instant delivery towards the customer intention using GrabFood. Hence, the hypothesis is formulated as follows.

H1: Instant delivery of food is positively associated with customer intention to use GrabFood.

Estimation of Delivery Time

Customers usually are highly aware of detecting their delivery progression, which means the progress of their order, the time estimated to arrive at their places, and even how much time is needed to wait for their order. This shows that the customers usually will keep track of their order the moment after they place their order. Estimation of time delivery (ETD) is known as the final point where the goods or foods are delivered to the customers (Hildebrandt & Ulmer, 2021). According to research made among 1000 deliveries that were made, there is at least a 10% maximum of 10 minutes late and a 25% maximum of 5 minutes late to the supposed estimation time. This also shows that about 40% of the customers who have their food later than their estimation of delivery time asked for their refunds from the company (Sawtell-Rickson, 2022). The estimation of delivery time should be the fundamental aspect as the customer is expecting to get their food on time. This also might affect the customer's intention to use GrabFood. Hence, the hypothesis is formulated as follows.

H2: Estimation of delivery time is positively associated with customer intention to use GrabFood.

Customized Recommendations on Food

In the software that they use such as GrabFood, the customers could search for their own liking according to their own previous order or delivery. Customized recommendations on food usually appear first as the AI has their data according to their previous research. AI also will recommend a restaurant that provides the same food which is based on their previous order or liking. Based on a survey that has been made of 1,000 customers who use food online apps, shows that the customers will order at the same restaurant when their food satisfaction is fulfilled in the previous order. The survey also shows that the customer will reconsider the selection that is given by the food delivery app while searching for their food by the rating that has been given by the customer to the restaurant (Lin et al., 2024). Recommendations on foods from the customer's perspective liking could help the customer to decide which restaurant offers the food in their own budget and help the customer to decide the best choice according to their own preference. These food delivery applications such as GrabFood that provide recommendations could affect the customer's intent on using the app. Thus, the hypothesis is formulated as follows.

H3: Customized recommendations on food are positively associated with customer intention to use GrabFood.

Cashless Payment

Using AI, it allows customers to pay through online payment, e-wallet or even using a card in the delivery app such as GrabFood. Cashless payment means any type of monetary transaction without any cash involvement. This means using debit and credit cards, online payments, and bank payments (Edeh et al., 2021; Nada et al., 2021; Damen, 2023). According to a survey in Malaysia in 2022, show that the respondents prefer cashless payments, where 36% choose online banking which is ranked first and followed by 32% on debit cards, 27% on E-wallets, and 8% on credit cards. This shows that Malaysian citizens prefer to adapt to cashless payment (Statista Research Department, 2023). Based on research, for consumers who usually order online, the percentage of using cashless payment is higher than traditional payments. There also shows that 38% of the customers use cashless payment as it shows their adapting to the technology that is provided by the government. This research also shows that customers are likely to use e-wallets and prepaid cards because of the lower risk of loss (Rahman et al., 2020). Nowadays, the usage of cashless payment is mostly popular for purchases that are made online (Darma & Noviana, 2020). This also includes the food delivery app that provides choices among the fewer payment methods such as online banking and payment through a card. This cashless payment method the customer uses GrabFood. Thus, the hypothesis is formulated as follows.

H4: Cashless payment is positively associated with customer intention to use GrabFood.

Interaction Provided

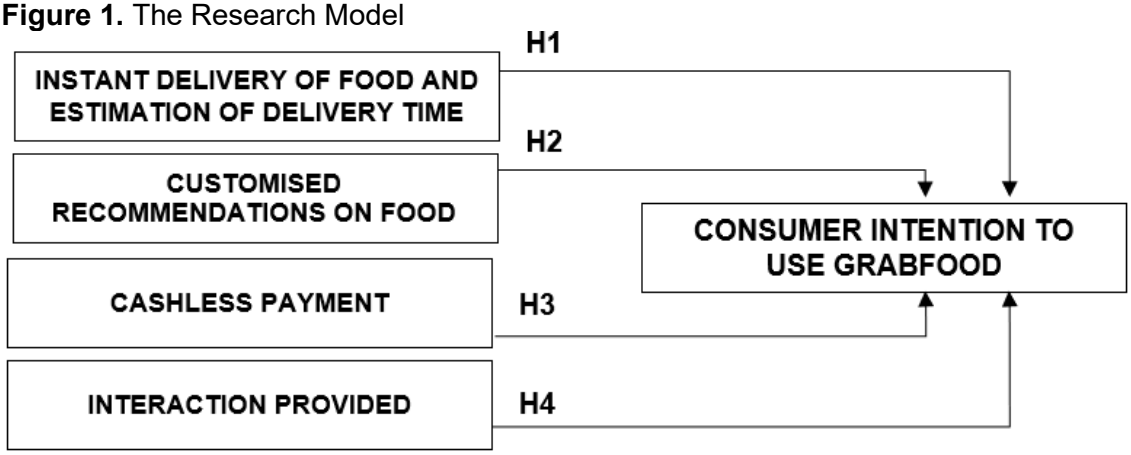
Interaction is defined as the action that influences a group of people, things, or one another (Hammersley & Woods, 2020). Interaction is provided through food delivery apps such as online customer services that will answer or give the solution to any inquiry regarding the food delivery or the order (Alalwan, 2020). Usually, customer service is 24 hours depending on the app's working time. Based on research regarding the relationship between customer service and food delivery apps, shows that customer preference towards the delivery app does change Other than that, the research concludes that the relationship between the company's food delivery app and the customer should be valued to attract the customer to stay loyal and use the app regularly (Kwon et al., 2023). The interaction between the company of the food delivery app and

the customer should be practiced as it is one of the important aspects to take care of the customer's needs at the same time it also could attract the customer to stay loyal to the brand or app. In addition, the interaction provided by GrabFood could possibly affect the customer's intention to use the app. Hence, the hypothesis is formulated as follows.

H5: Interaction provided is positively associated with customer intention to use GrabFood.

Figure 1 illustrates our research model. A total of 4 hypotheses were formulated.

Figure 1. The Research Model



RESEARCH METHOD

The quantitative and qualitative research methods employed in this study were used to investigate how AI was utilized in consumers' purchase intentions on GrabFood. Quantitative research is defined as "research that works with computation, for which values form data, and which is analyzed using statistics to answer specific research questions or hypotheses and to forecast that a certain variable affects another variable" (Walliman, 2021). Data collection is utilized as a document or content analysis as a study type in qualitative research. Public records, textbooks, letters, reports, and other materials may be used. A stimulus variable or variable that influences other variables is referred to as an independent variable (Diel et al., 2022). The independent variable is the variable that the researcher measures, manipulates, or chooses to determine its association with a symptom observed. A dependent variable is one that is observed, measured in order to identify the effect induced by the independent variable.

Collecting data is the process of gathering primary and secondary data in research. Method of data collection, there is always a link between data collection methods and the research topic that will be solved. This study uses a method scale known as the questionnaire. A questionnaire is a data collection approach that allows one to learn about the attitudes, beliefs, behaviors, and characteristics of certain key individuals in the organization who may be impacted by the planned or current system. A five-point Likert Scale is a scale that may be used to quantify opinions and perceptions of an object or issues on a scale of one (strongly disagree) to five (strongly agree).

A digital questionnaire containing six sections was used to collect data from 100 respondents from Malaysia, India, and Indonesia of various nationalities. The sections were demographic, brand awareness, GrabFood's ability to provide customized food recommendations, the impact of interactivity on consumers' perceptions of trust in GrabFood, GrabFood's ability to deliver orders immediately and provide delivery estimates, and GrabFood's cashless payment method. The information in each

statement is relevant to the study's essential analysis. The survey was administered to the respondents via a Google Form and spread through social media. Each of the 27 questionnaires was filled out. Therefore, the responses available for the calculation were helped by Statistical Packages for Social Sciences (SPSS).

RESULTS

Table 1. Summary of Respondents' Demographic Characteristics (N=100)

Response	Frequency	Percentage (%)
Age		
18 - 24	73	73
25 - 34	10	10
35 - 44	7	7
45 - 54	5	5
55 and above	5	5
Gender		
Female	63	63
Male	37	37
Ethnicity		
Ambon	1	1
Chinese	35	35
Indian	29	29
Java	23	23
Malay	11	11
Punjabi	1	1
Nationality		
Indian	10	10
Indonesian	24	24
Malaysian	66	66
Living Area		
Rural	20	20
Urban	80	80
Education Level		
Bachelor's degree	75	25
Master's degree	5	5
PhD	2	2
Pre-University	9	9
Primary school	2	2
Secondary school	7	7
Occupation		
Academic Head	1	1
Accountant	1	1
Cashier	1	1
Clerk	1	1
Data Engineer	1	1
Doctor	1	1
Engineer	3	3
Government staff	2	2
Insurant Agent	1	1
Lab Assistant	1	1
Lecturer	1	1
Office staff	1	1
Photographer	1	1

Professor	1	1
Service	1	1
Stewardess	1	1
Student	71	71
Unemployed	9	9
Welder	1	1
Monthly Household Income		
No Income	54	54
Below RM2,500	22	22
RM2,500 - RM4,000	11	11
RM4,001 - RM6,000	6	6
RM6,001 - RM10,000	4	4
Above RM10,001	3	3

The demographic characteristics of the respondents are summarized in Table 1. According to Table 1, most of the respondents are aged between 18 to 24 which is a total of 73 respondents out of 100 respondents because most of the respondents are students in university and more familiar with digital devices. Besides, there are 10 respondents from aged between 25 to 34, 7 respondents from aged between 35 to 44, 5 respondents from aged between 45 to 54 and the last 5 respondents are from aged between 55 and above. On the other hand, 100 respondents who are involved in this study are made up of 63 female respondents and 37 male respondents. When it comes to the nationality of the respondents, 66 Malaysians account for more than half of the total, with the remaining respondents coming from Indonesia and India, with 24 and 10 respondents, respectively. 35% of Chinese respondents, 29% of Indian respondents, 23% of Java respondents, 11% of Malay respondents, and the remaining 2% are Ambon and Punjabi respondents, respectively. Aside from that, many of the respondents live in cities rather than rural areas. This demonstrates that four out of five (80%) of total respondents live in cities, while just 20% live in rural areas. More than half of the respondents, 75 percent, obtained a bachelor's degree level, 5 percent obtained a master's degree level, and 2 percent obtained a PhD level. Pre-University (9 respondents), Primary School (2 respondents), and Secondary School (7 respondents) represented the other respondents' educational levels. In terms of monthly household income, slightly more than half (54%) of respondents had no income since they are students. Furthermore, 22 respondents earned less than RM2,500 per month, 11 earned between RM2,500 and RM4,000 per month, 6 earned between RM4,001 and RM6,000 per month, 4 earned between RM6,001 and RM10,000 per month, and a minority of respondents (3%) earned more than RM10,000 per month.

Table 2. Descriptive Statistics, Cronbach's Coefficients Alpha, and Zero-Order Correlation of All Study Variables

Variables	1	2	3	4	5
Instant delivery and estimation of delivery time	0.946				
Customized recommendation provided	0.852**	0.957			
Cashless payment method	0.773**	0.755**	0.656		
Interaction provided	0.889**	0.891**	0.730**	0.920	
Consumer's intention to use GrabFood delivery	0.531**	0.486**	0.467**	0.461**	0.834
Number of Items	4	3	7	3	4
Mean	3.8050	3.7833	3.5129	3.6300	3.5900
Standard Deviation	1.09900	1.12554	0.75158	1.09061	0.9959

Note: N=100; *p < .05, **p < .01, ***p < .001. Diagonal entries indicate Cronbach's coefficient alpha.

Table 2 presents the descriptive statistics, correlation alpha, and zero-order correlation of all study variables. Our findings revealed that the five variables have acceptable internal consistency reliability with a coefficient alpha range from 0.66 to 0.96.

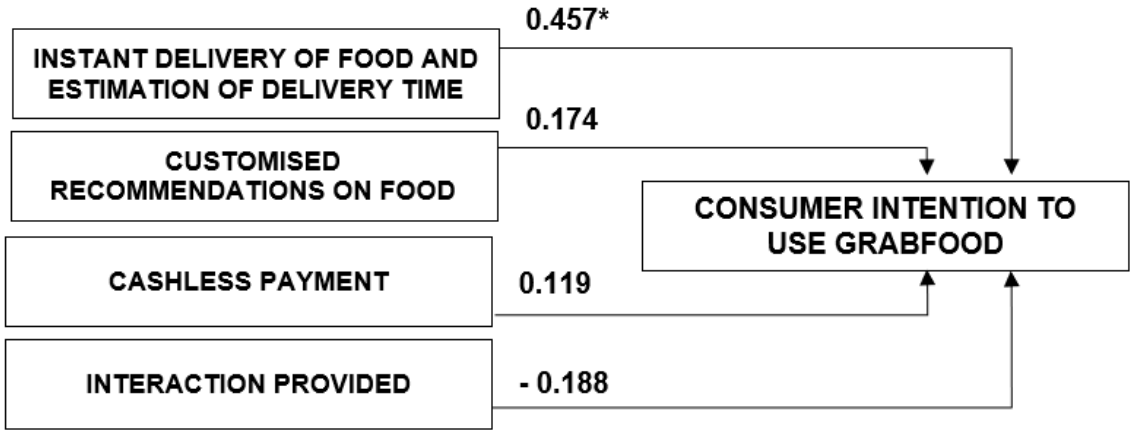
Table 3. Regression Analysis

Variables	Beta
Instant delivery and estimation of delivery time	0.457*
Customized recommendation provided	0.174
Cashless payment method	0.119
Interaction provided	-0.188
Consumer's intention to use GrabFood delivery	
R Square	0.267
F Value	10.009
Durbin-Waston Statistic	1.483

Note: N=100; *p < .05, **p < .01, ***p < .001.

As presented in Table 3, consumer intention to use GrabFood is the dependent variable, while instant delivery of food and estimation of delivery time, customized recommendations on food, cashless payment as well as interaction provided will be the independent variable. The hypothesis developed was assessed using regression analysis. The output indicated that the customer's intention to use GrabFood was positively connected with instant delivery and estimation of delivery time with a beta (β) value of 0.457. Thus, H1 and H2 were supported. The customized recommendation provided, cashless payment method, and interaction provided did not significantly affect the customer's intention to use GrabFood delivery with beta (β) values of 0.174, 0.119, and -0.188 respectively. Hence, H3, H4, and H5 are not supported. The value of R square was 0.267, indicating that instant delivery and estimation of delivery time accounted for 26.7% of the consumer's intention to use GrabFood delivery. The summary of the hypothesized model can be found in Figure 2.

Figure 2. Hypothesized Model



International Journal of Tourism & Hospitality in Asia Pasific (IJTHAP)
Vol. 7 No. 2, pp.141-154, June, 2024
E-ISSN: 2654-7945 P-ISSN: 2685-8800
https://www.ejournal.aibpmjournals.com/index.php/IJTHAP

DISCUSSION

This section delves into the intriguing results of your research on GrabFood user behavior, specifically their purchase intentions. As presented, the study investigated how various factors influence customers' decisions to use GrabFood, a leading food delivery service.

The discussion on AI in food delivery apps highlights the significant impact of AI-driven features on the online food delivery industry. The integration of AI algorithms into food delivery apps has revolutionized the way food delivery services operate, making them more efficient and user-friendly. AI-driven features such as instant doorstep deliveries, customized recommendations, chatbot integration, and auto-approval for new restaurants have transformed the food delivery experience, enhancing customer satisfaction and loyalty.

The study on GrabFood user behavior reveals a strong correlation between speed and purchase intention, with instant delivery and estimated delivery time having a significant positive impact on users' decisions. This echoes prior research, solidifying the concept of "time-based reliability" as a critical factor in online food delivery. The prioritization of speed in GrabFood's services directly addresses the need for efficiency during meal breaks, minimizing waiting times and creating a streamlined experience. Additionally, speed can influence user psychology, fostering a sense of immediacy and gratification, which enhances satisfaction and creates a positive association with GrabFood.

However, the study yielded unexpected results regarding the impact of other factors. Customized food recommendations ($\beta = 0.174$), cashless payment methods ($\beta = 0.119$), and user interaction ($\beta = -0.188$) did not significantly influence customer purchase intention, leading to the rejection of hypotheses H3, H4, and H5.

The lack of significant impact from personalized recommendations could be due to several reasons. Firstly, the effectiveness of such systems might depend on the sophistication of GrabFood's AI algorithm. Studies by Ameen et al. (2021) suggest that more advanced AI can significantly influence customer choices by providing highly relevant and accurate recommendations. Perhaps GrabFood's current algorithm requires further refinement to personalize suggestions effectively. Secondly, user preferences regarding personalization might vary within the sample group. A larger and more diverse sample could provide a clearer picture of user receptiveness to customized recommendations.

The non-significant correlation between cashless payment methods and purchase intention is also noteworthy. While cashless transactions are increasingly popular, it is possible that for GrabFood users, convenience factors like fast delivery outweigh the specific payment method used. This suggests that users prioritize speed and ease of service over the payment option itself.

Finally, the negative beta value for user interaction necessitates further exploration. This counterintuitive finding implies that the format or type of user interaction offered by GrabFood might not resonate with participants. Perhaps the interaction design is cumbersome or does not provide significant value to the user experience. Studies by Iman et al. (2023) and Yalamati (2023) emphasize the importance of user-friendly and valuable user interactions for positive customer experiences. Understanding user preferences regarding interaction design could be crucial in optimizing GrabFood's interface for better engagement.

The R-squared value of 0.267 indicates that instant delivery and estimated delivery time explain a significant portion of the variance in customer intention to use GrabFood, accounting for approximately 26.7% of the variation. This suggests that while these factors are indeed important, they are not the sole determinants of customer purchase decisions. The remaining 73.3% of the variance is attributed to other variables, which highlights the complexity of customer decision-making processes.
The significance of instant delivery and estimated delivery time in explaining customer intention to use GrabFood is not surprising, given the increasing importance of convenience and speed in modern consumer behavior. However, the fact that these factors only explain a relatively small portion of the variance in customer intention suggests that other factors are also at play. For instance, customer preferences regarding food quality, variety, and nutritional value may also influence their decision to use GrabFood. Additionally, factors such as customer loyalty, brand reputation, and social influence may also play a role in shaping customer intentions.

CONCLUSION

The findings of this study provide valuable insights into the factors that influence consumers' intention to use GrabFood, a popular food delivery service. The research aimed to investigate the relationship between consumer intention to use GrabFood and several independent variables, including instant delivery of food, estimation of delivery time, customized recommendations on food, cashless payment, and interaction provided. The results of the regression analysis indicate that the customer's intention to use GrabFood is positively correlated with instant delivery and estimation of delivery time, with a beta (β) value of 0.457. This suggests that consumers are more likely to use GrabFood if they can receive their food quickly and have a reliable estimate of the delivery time. This finding supports the first two hypotheses, H1 and H2, which posited that instant delivery and estimation of delivery time would positively influence consumer intention to use GrabFood.

On the other hand, the study found that customized recommendations on food, cashless payment method, and interaction provided did not significantly affect the customer's intention to use GrabFood delivery. The beta (β) values for these variables were 0.174, 0.119, and -0.188, respectively, indicating that these factors did not have a significant impact on consumer intention to use GrabFood. This finding does not support the third, fourth, and fifth hypotheses, H3, H4, and H5, which posited that these variables would positively influence consumer intention to use GrabFood.

The implications of these findings are significant for GrabFood and other food delivery services. The results suggest that instant delivery and estimation of delivery time are critical factors in determining consumer intention to use GrabFood. Therefore, GrabFood should focus on improving its delivery times and providing accurate estimates of delivery times to increase consumer satisfaction and loyalty. Additionally, the study's findings highlight the importance of providing a seamless and efficient delivery experience, which can be achieved through the use of technology and logistics management systems.

In terms of future research, this study provides a foundation for further investigation into the factors that influence consumer intention to use GrabFood. Future studies could explore the impact of other variables, such as food quality, variety, and pricing, on consumer intention to use GrabFood. Additionally, researchers could investigate the role of technology, such as mobile apps and social media, in influencing consumer intention to use GrabFood. By understanding the factors that influence consumer intention to use GrabFood, food delivery services can develop targeted marketing strategies and improve their services to increase consumer satisfaction and loyalty.

LIMITATION

Nonetheless, the findings of this study must be interpreted considering substantial limitations. The research is being conducted online using a Google Form and is being disseminated through social media platforms such as WhatsApp, Telegram, and Instagram. Hence, most respondents were Generation Z, which limits its generalizability. Second, this research focuses solely on urban areas in Malaysia, Indonesia, and India to evaluate customers' intentions to utilize GrabFood. Due to variances in nation and lifestyles across different places, this constraint may lead to the chance that our respondents may not represent the entire GrabFood customer base.

Hence, future research should include a larger population in a sample that includes additional places and states in Malaysia, Indonesia, and India to improve the study's accuracy. Furthermore, future research should incorporate more independent variables that may be related to the dependent variable, which is the customer's intention to use GrabFood via AI technology. Furthermore, to improve data reliability and validity, future studies should use the Structure Equation Model (SEM-AMOS) in data analysis.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge the contributions of informants, colleagues, and all individuals who supported this research through their insights and engagement. Their involvement greatly enriched the quality and depth of this study.

DECLARATION OF CONFLICTING INTERESTS

The Authors declare that there is no conflict of interest.

REFERENCES

Ahn, J. (2022). Exploring perceived innovation in building customers' patronizing behavior in the food delivery service context. *International Journal of Quality and Service Sciences*, *14*(2), 258-273. https://doi.org/10.1108/ijqss-08-2021-0114

Alalwan, A. A. (2020). Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal of Information Management*, *50*(1), 28–44. https://doi.org/10.1016/j.ijinfomgt.2019.04.008

Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior, 114*, 106548. https://doi.org/10.1016/j.chb.2020.106548

Aryani, D. N., Singh, P., Khor, Y. X., Kee, D. M. H., Selvia, K., Lee, C. W., ... & Anantharavoo, L. (2022). Factors influencing consumer behavioral intention to use food delivery services: A study of Foodpanda. *Journal of The Community Development in Asia, 5*(1), 69-79. https://doi.org/10.32535/jcda.v5i1.1386

Belarmino, A., Raab, C., Tang, J., & Han, W. (2021). Exploring the motivations to use online meal delivery platforms: Before and during quarantine. *International Journal of Hospitality Management, 96*, 102983. https://doi.org/10.1016/j.ijhm.2021.102983

Campbell, C., Sands, S., Ferraro, C., Tsao, H.-Y. (Jody), & Mavrommatis, A. (2020). From data to action: How marketers can leverage AI. *Business Horizons*, *63*(2), 227-243. https://doi.org/10.1016/j.bushor.2019.12.002

Cao, L. (2021). Artificial intelligence in retail: applications and value creation logics. *International Journal of Retail & Distribution Management*, *49*(7), 958-976. https://doi.org/10.1108/ijrdm-09-2020-0350

Chaudry, A. (2022, April 21). *Instant Delivery: A Quick Guide for Retailers*. Ohi. https://ohi.com/blog/instant-delivery-a-quick-guide-for-retailers/

Damen, A. (2023, February 1). *Cashless Payments: Pros, Cons, How to Accept Them, & 8 Types*. MONEI. https://monei.com/blog/cashless-payments/

Darma, G. S., & Noviana, I. P. T. (2020). Exploring digital marketing strategies during the new normal era in enhancing the use of digital payment. *Jurnal Mantik*, *4*(3), 2257–2262. https://doi.org/10.35335/mantik.Vol4.2020.1084.pp2257-2262

Diel, A., Weigelt, S., & Macdorman, K. F. (2022). A meta-analysis of the uncanny valley's independent and dependent variables. *ACM Transactions on Human-Robot Interaction*, *11*(1), 1–33. https://doi.org/10.1145/3470742

Edeh, F. O., Aryani, D. N., Kee, D. M. H., Samarth, T., Nair, R. K., Tan, Y. S., & Teh, Y. C. (2021). Impact of COVID-19 pandemic on consumer behavior towards the intention to use E-wallet in Malaysia. *International Journal of Accounting & Finance in Asia Pasific, 4*(3), 42-59. https://doi.org/10.32535/ijafap.v4i3.1205

Hammersley, M., & Woods, P. (Eds.). (2020). *Life in School: The Sociology of Pupil Culture*. Routledge.

Hassani, H., Silva, E. S., Unger, S., TajMazinani, M., & Mac Feely, S. (2020). Artificial Intelligence (AI) or Intelligence Augmentation (IA): What Is the Future? *AI*, *1*(2), 143–155. MDPI. https://doi.org/10.3390/ai1020008

Hildebrandt, F. D., & Ulmer, M. W. (2021). Supervised learning for arrival time estimations in restaurant meal delivery. *Transportation Science, 56*(4), 1058-1084. https://doi.org/10.1287/trsc.2021.1095

Iman, N., Nugroho, S. S., Junarsin, E., & Pelawi, R. Y. (2023). Is technology truly improving the customer experience? Analysing the intention to use open banking in Indonesia. *International Journal of Bank Marketing, 41*(7), 1521-1549. https://doi.org/10.1108/IJBM-09-2022-0427

Kwon, J., Yu, H., & Ahn, J. (2023). Multidimensional value of customers' mobile service experiences in the food service context. *Journal of Hospitality and Tourism Insights, 6*(2), 912-927. https://doi.org/10.1108/jhti-03-2022-0108

Lin, P. M., Au, W. C. W., & Baum, T. (2024). Service quality of online food delivery mobile application: an examination of the spillover effects of mobile app satisfaction. *International Journal of Contemporary Hospitality Management, 36*(3), 906-926. https://doi.org/10.1108/ijchm-09-2022-1103

Mhlanga, D. (2021). Artificial Intelligence in the Industry 4.0, and Its Impact on Poverty, Innovation, Infrastructure Development, and the Sustainable Development Goals: Lessons from Emerging Economies? *Sustainability*, *13*(11), 5788. https://doi.org/10.3390/su13115788

Mikul, S. (2021, December 23). *Chris Walton, OmniTalk*. SnowShoe. https://snowshoe.io/chris-walton-omnitalk

Nada, D. Q., Suryaningsum, S., & Negara, H. K. S. (2021, December). Digitalization of the quick response Indonesian standard (QRIS) payment system for MSME development. *Journal of International Conference Proceedings, 4*(3), 551-558. https://doi.org/10.32535/jicp.v4i3.1358

Nguyen, T. P., Lin, Y. K., & Chiu, Y. H. (2023). Investigate exact reliability under limited time and space of a multistate online food delivery network. *Expert Systems with Applications, 213*, 118894. https://doi.org/10.1016/j.eswa.2022.118894

Pitchay, A. A., Ganesan, Y., Zulkifli, N. S., & Khaliq, A. (2022). Determinants of customers' intention to use online food delivery application through smartphone in Malaysia. *British Food Journal*, *124*(3), 732-753. https://doi.org/10.1108/bfj-01-2021-0075

Poon, W. C., & Tung, S. E. H. (2024). The rise of online food delivery culture during the COVID-19 pandemic: An analysis of intention and its associated risk. *European Journal of Management and Business Economics, 33*(1), 54-73. https://doi.org/10.1108/ejmbe-04-2021-0128

PwC. (2021, July 1). *Consumers becoming more eco-conscious and willing to travel, attend mass events, PwC survey reveals*. PwC.

https://www.pwc.com/gx/en/news-room/press-releases/2021/global-consumer-insights-pulse-survey-2021.html

Pyae, W. L. (2022, November 1). *Influencing Factors on Purchase Intention and Consumer Usage Behavior of Grabfood Delivery*. Meral.edu.mm. https://meral.edu.mm/records/8619

Rahman, M., Ismail, I., & Bahri, S. (2020). Analysing consumer adoption of cashless payment in Malaysia. *Digital Business*, *1*(1), 100004. https://doi.org/10.1016/j.digbus.2021.100004

Sawtell-Rickson, J. (2022, May 31). *Food Delivery Time Prediction: How Does It Work? | Built In*. Builtin.com. https://builtin.com/machine-learning/food-delivery-time-prediction

Sima, V., Gheorghe, I. G., Subić, J., & Nancu, D. (2020). Influences of the Industry 4.0 Revolution on the Human Capital Development and Consumer Behavior: A Systematic Review. *Sustainability*, *12*(10), 4035. https://doi.org/10.3390/su12104035

Statista Research Department. (2023, February 20). *Malaysia: cashless payment usage by type 2022*. Statista. https://www.statista.com/statistics/1367265/malaysia-cashless-payment-usage-by-type/

Stuart. (2023, May 12). *Instant Delivery: what is it, trends and stats (2023)*. Www.blog.shippypro.com; ShippyPro. https://www.blog.shippypro.com/en/instant-delivery

Yalamati, S. (2023). Revolutionizing digital banking: Unleashing the power of artificial intelligence for enhanced customer acquisition, retention, and engagement. *International Journal of Management Education for Sustainable Development, 6*(6), 1-20.

Walliman, N. (2021). *Research Methods: The Basics*. Routledge.

Zhao, B., Tan, H., Zhou, C., & Feng, H. (2023). Optimal delivery time and subsidy for IT-enabled food delivery platforms considering negative externality and social welfare. *Industrial Management & Data Systems, 123*(5), 1336-1358. https://doi.org/10.1108/IMDS-09-2022-0554