



## A Comparative Study of Personal Factors Influencing Technology Acceptance Among Mobile Food Ordering Application Users in Bangkok

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### Abstract

This study aims to compare the level of technology acceptance factors among Mobile Food Ordering Application (MFOAs) users based on personal factors including age and incomes. These factors involve performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, promotion packages, privacy and security, partnerships, and physiological needs. A quantitative research approach was employed, using a survey of 231 food ordering app users in Bangkok. Data were analyzed using both descriptive and inferential statistical methods. The findings revealed that the users, who had different age and income, significantly rated different levels of technology acceptance factors including social influence, facilitating conditions, hedonic motivation, price value, habit, promotion packages, privacy and security, partnerships, and physiological needs. However, there were no significant differences on the level of performance expectancy and effort expectancy. Specifically, the users, aged between 20 and 35 years, placed greater importance on all factors, compared to other age groups. Moreover, users with a monthly income of 15,000-30,000 THB rated all factors of technology acceptance more highly than those in other income brackets.

**Keywords:** 1) Technology Acceptance 2) Personal Factors 3) Mobile Food Ordering Application

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## Introduction

In 2023, (Kasikorn Research Center, 2023) projected that Thailand's food delivery market would experience a downturn following the unprecedented growth witnessed during the COVID-19 pandemic. The market's estimated value was expected to fall between THB 8.1 billion and 8.6 billion. This contraction can be attributed to the relaxation of pandemic restrictions, which encouraged consumers to return to traditional dine-in experiences, coupled with rising food and energy costs that reshaped both pricing structures and consumer behavior. Despite this decline, the market maintained a position well above pre-pandemic benchmarks.

Notably, 2021 marked a period of extraordinary growth for the food delivery sector, as previously forecasted by the Kasikorn Research Center. The market swelled to a value of approximately THB 55 billion, with over 120 million orders—tripling the volume recorded prior to the pandemic in 2019. This surge was driven by heightened demand, intensifying competition among restaurants, and a shift in consumer preferences toward more affordable, locally accessible food options. By 2023-2024, however, the market began to show signs of stabilization. While food delivery remains an integral facet of the restaurant industry, its rapid expansion has decelerated. The market size in 2024 is anticipated to contract further, by an estimated 0.8-6.5%, as consumers increasingly return to dine-in settings and economic pressures, including rising living costs, take hold. Nonetheless, the food delivery sector continues to represent a significant

market.

Technology Acceptance, as defined by (Davis, Bagozzi and Warshaw, 1989, p. 997), refers to the process by which individuals or organizations decide to integrate new technology into their daily routines or work processes. This adoption is driven by the perceived value, efficiency, and convenience that the technology offers, which, in turn, influences users' decision-making. Research on technology acceptance typically examines the factors that impact this process and seeks to develop models or theories that offer a deeper understanding of it. (Muangmee, et al., 2021, pp. 1307-1308).

Research on the acceptance of mobile food ordering applications (MFOAs) in Thailand, such as GrabFood, Line Man, and Foodpanda, has examined various factors, including perceived benefits, perceived ease of use, perceived security, perceived trust, perceived risk (Chanton, Chimmasangkana and Rittiboonchai, 2021, pp. 89-90), service quality, price, and promotions (Panyana and Sapsanguanboon, 2019, pp. 62-64; Songsraboon, 2019, pp. 133-134; Manesan and Rattanaphan, 2024, pp. 107-108), and perceived convenience (Pumim, and Suksomkit, 2021, pp. 60-62). However, these studies did not encompass the comprehensive landscape of technology acceptance concerning MFOAs within the context of a highly competitive digital market. Therefore, this research proposes new factors related to MFOAs, including partnerships, and physiological needs that have been found in the qualitative phase. It seeks to investigate new perspectives and assess the significance of the factors of tech-



nology acceptance, taking into account the personal characteristics of users. Altogether, this study includes a range of important drivers as shown below.

**Performance Expectancy:** A study by (Hong, Choi, and Joung, 2023, pp. 82-84) found that performance expectancy significantly influences users' adoption and continued use of mobile services. Similarly, (Choi, et al., 2021, pp. 3603-3604) identified that performance expectancy is a predictor of continued usage in mobile apps.

**Effort Expectancy:** A study by (Ramos, 2022, pp. 846-848) effort expectancy significantly impacts user satisfaction and continued usage intentions in mobile applications.

**Social Influence:** A study by (Zhao, and Bacao, 2020, p. 102683) emphasized that social influence is a significant predictor of mobile app usage. Additionally, (Chotigo, and Kadono, 2022, p. 177) found that social influence directly impacted the recommendation intention for food delivery apps in Southeast Asia.

**Facilitating Conditions:** A study by (Puriwat, and Tripopsakul, 2021b, pp. 101-102) found that facilitating conditions, such as a reliable payment system and efficient delivery infrastructure, are crucial for continued use of food delivery apps.

**Hedonic Motivation:** A study by (Prasetyo, et al., 2021, pp. 88-89). highlighted that hedonic motivation significantly contributes to user satisfaction and continued use in mobile applications, especially in entertainment or leisure-driven sectors like food ordering.

**Price Value:** A study by (Allah Pitchay, et al., 2022, p. 749). found that price-value per-

ceptions strongly correlate with both continuance intention and recommendation intention in the mobile food delivery industry.

**Habit:** A study by (Chotigo, and Kadono, 2021, p. 4108) argued that habit plays a significant role in predicting continued use of mobile apps.

**Promotion Package:** A study by (Ramos, 2022, p. 833) found that promotional offers such as discounts or loyalty points significantly increased customer retention and recommendation intentions in mobile food apps.

**Privacy and Security:** A study by Humbani, Higuera-Castillo, and Liébana-Cabanillas, 2024, p. 103807) pointed out that security and privacy concerns are key drivers of consumer trust, which in turn affects both continuance and recommendation intentions. (Belanche, Flavián, and Pérez-Rueda, 2020, p. 4275) similarly found that strong privacy protection measures significantly increase the likelihood of users recommending mobile apps to others.

**Partnerships:** A study by (Yoopetch, Siriphan, and Chirapanda, 2022, p. 70) found that partnerships with trusted service providers (e.g., well-known restaurants and reliable delivery services) are a significant predictor of continued use of mobile food ordering apps.

**Physiological Needs:** A study by (Okumus and Bilgihan, 2014, pp. 41-43) observed that physiological needs, like hunger, are a major motivator for users to adopt and continue using food delivery apps.

In addition, this study also examines key personal factors such as age and income affecting technology acceptance for mobile food ordering applications. Previous studies

used the Extended Technology Acceptance Model (ETAM) to examine factors such as trust, ease of use, and perceived usefulness (Al Amin, et al., 2021, pp. 118-121) For example, (An, Eck, and Yim, 2023, pp. 840-841) found that age and income influenced adoption; younger and higher-income groups showing greater acceptance due to familiarity with technology and premium service preferences. Moreover, (Rungruangjit and Charoenpornpanichkul, 2024, pp. 240-241) found that younger users were early adopters due to technological comfort, while lower-income users were attracted by discounts and affordability in mobile food ordering applications. (Puriwat and Tripopsakul, 2021, pp. 2091-2092) found that gender, age, daily spent time on social media had effects on user behavior - younger adults tend to be more adept with user behavior and behavioral intention more than older adult.

## Objectives

The aims of this research is to compare the level of technology acceptance factors among Mobile Food Ordering Application (MFOAs) users based on personal factors including age and incomes.

## Literature Reviews

### Technology Acceptance

One of the most developed theories in the context of technology acceptance is the Technology Acceptance Model (TAM), which was developed by (Davis, Bagozzi and Warshaw, 1989, pp. 983-989). This theory proposes that users' acceptance of technology depends on two main factors: perceived usefulness

and perceived ease of use. The concept has been tested and refined in various studies to align promotion packages, privacy and security, partnerships, and physical needs, which affect personal factors such as age and income (Venkatesh, et. al., 2003, pp. 467-471; Jatugool and Jongadsayakul, 2021, pp. 560-563; Bodhisundara and Pattanarangsun, 2022, pp. 132-137) TAM has been expanded and refined by several researchers. A notable development of this theory is the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), which includes seven factors: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habitual (Venkatesh, et. al., 2012, pp. 171-173).

### The application of UTAUT2

The development and application of UTAUT2 theories have provided a deeper understanding of the factors influencing technology adoption across different contexts. Despite the extensive use of UTAUT2, there remains a need for further research to refine the factors involved to effectively explain technology acceptance when the market of MFOAs is fiercely competitive. First, promotion packages play a crucial role in the development of food ordering applications, as they directly influence consumer behavior and app usage. (Teo, Liew, and Lim, 2024, pp. 2316930-2316932). Second, privacy and security are fundamental aspects of food delivery app development, especially in an era where users are concerned about the safety of their personal and financial data. (Humbani, Higuera-Castillo, and Liébana-Cabanillas, 2024, pp. 103814-103815). Third, partnerships are key to expanding the



offerings and reach of MFOAs. Establishing collaborations with a wide range of restaurants, both local and international, ensures that users have access to a variety of food options. (Ray, et al., 2019, p. 228); Yoopetch, Siriphan, and Chirapanda, 2022, pp. 81-83). Fourth, physiological needs encompass the considerations of health conditions and nutritional requirements, particularly in contexts where online food ordering services are prevalent and accessible. (Okumus and Bilgihan, 2014, p. 31)

By providing a diverse array of food choices, delivery platforms facilitate the fulfillment of essential dietary needs, allowing individuals to remain at home or at their places of employment. (Partridge, et al., 2020, p. 3107; Shah, Yan, and Qayyum, 2021, p. 3368)

Regarding personal factors, the age of users influences user behavior on MFOAs. Generally, younger generations are more familiar with technology and mobile applications, making them more likely to adopt and use food delivery apps compared to older adults. (Venkatesh, et al., 2003, pp. 467-471), In addition to age, income is the other factor affecting the use of MFOAs. Individuals with higher incomes are more likely to use food delivery services frequently because they can afford the service fees and appreciate the convenience (Rungruangjit and Charoenpornpanichkul, 2024, pp. 240-241), Conversely, those with lower incomes may only use these applications during promotions or special discounts.

Most MFOA users fall into the Millennial group (aged 25-40) and Gen Z (under 25), who are heavily engaged with technology. These groups have grown up with digital trans-

formations and are familiar with using applications on smartphones. (An, Eck, and Yim, 2023, pp. 840-841), In contrast, older adults (aged 50 and above) to use food delivery apps less frequently due to a lack of skills or familiarity with modern technology. (Rungruangjit and Charoenpornpanichkul, 2024, pp. 237-239).

Income is another significant factor influencing the use of food ordering applications. Individuals with higher incomes are more likely to order food through these apps more frequently, as they are financially capable of covering delivery fees and food costs. Moreover, they view it as a time-saving (Yeo, Goh, and Rezaei, 2017, pp. 156-159). On the other hand, those with low or moderate incomes tend to use MFOAs when there are promotions or discounts, as price plays a more crucial role. (Kaur, et al., 2021, pp. 1148-1152).

Therefore, the present study seeks to investigate the significance of the technology acceptance factors by incorporating four additional constructs: promotion packages, privacy and security, partnerships, and physiological needs.

### Conceptual Framework

The independent variables in this study include age and income, while the dependent variables.



**Figure 1** Conceptual Framework

## Methods

### Population and sample

This research employed two-staged data collection. At first stage, qualitative research was conducted through in-depth interviews, recommended by (Patton, 2014, pp. 421-422). As a result, data were collected from 32 MFOA users, consisting of 10 Thai regular customers, 12 delivery riders, and 10 restaurant owners. The objectives of the qualitative phase were to investigate various features of MFOAs that can enhance the user experience from multiple perspectives and to develop a framework for enhancing user experience while utilizing MFOAs. This first stage provides a comprehensive framework for enhancing user experience in MFOAs. As a result, we identified four additional factors beyond the application of UTAUT2 in the existing literature. Second, quantitative research was consequently performed through a questionnaire survey. The objective of this stage phase was to investigate the level of technology acceptance factors and the impact of personal variables on these factors.

The population for this stage consisted of MFOAs users in Bangkok which has the highest number of app users in Thailand (Wongnai,

2022). The sample size was determined using (Cochran, 1977, pp. 75-77) with a confidence level of 95% and a margin of error of 5%, which required a minimum sample size of 200-300. In order to mitigate the impact of potential errors and data discrepancies, a total of 557 questionnaires were administered between May 10 and July 15, 2024. Following the rigorous screening process, 231 questionnaires were deemed usable for data analysis, resulting in the response rate of 41.47 percent. The sampling method employed was purposive sampling users there have been various considerations from people who have experienced more than five times in the last three months.

### Research Instrument

The questionnaire was developed based on a review of theoretical literature and related research, covering the content and objectives of the study. The questionnaire includes the following sections. Section 1 consists of demographic information of the respondents, including age and income. Section 2 consists of a rating scale of the importance of technology acceptance across 11 factors. The sources of each construct are displayed in Table 1.

**Table 1** Sources of study constructs

Constructs	Adapted from
Performance expectancy, effort expectancy, social influence, facilitating conditions Hedonic motivation, Price Value, and Habit	Alalwan, Dwivedi and Rana (2017, p. 109), Hoque and Sorwar (2017, p. 78), Kabra and Ramesh (2017, p. 1271), Lee, Sung and Jeon (2019, p. 3147-3148), Naranjo-Zolotov, et.al. (2018, p. 385), Okumus, et al. (2018, p. 71), Patila, et.al. (2020, p. 102156-102157), and Van Droogenbroeck, and Van Hove (2021, pp. 4164-4165).
Promotion package, Privacy and security, Partnership, and physiological needs	In-depth interviews

To ensure the reliability of the questionnaire, the researchers conducted a pre-test with 32 users of MFOAs similar to the sample group. The data collected was used to calculate the Alpha-Coefficient for each factor. The reliability coefficients ranged from 0.792 to 0.949, which is higher than the acceptable threshold of 0.7 (Hair, et al., 2010, p. 91). This finding surpasses the acceptable threshold established by (Hair, et al., 2010, p. 126) and further supported by (Straub, Boudreau, and Gefen, 2004, p. 39).

In order to evaluate content validity, a panel of experts was engaged to assign scores to each item. A score of 1 was designated when the experts expressed confidence that the item effectively measured the intended construct. Conversely, a score of -1 was given when the experts were certain that the item did not measure the construct accurately. In instances where the experts were uncertain regarding the item's measurement capability, a score of zero was applied. The subsequent analysis yielded Item Objective Congruence (IOC) values ranging from 0.8 to 1.0, signifying an adequate level of validity.

### Data Analysis

The data obtained from the responses of the 231 users were analyzed using statistical software to assist with the analysis. The following statistical methods were employed.

1. Frequency and Percentage: Frequency distribution and percentage were used to analyze the demographic data of the respondents.

2. Mean and Standard Deviation: The arithmetic mean and standard deviation were calculated to analyze the respondents' opinions on technology acceptance.

3. F-test (One-way ANOVA): The F-test was used to compare the differences between personal factors and technology acceptance. If statistically significant differences at the .05 level were found, the researcher conducted pairwise comparisons.

### Results

#### General Information of the Sample

The demographic composition revealed that a majority of respondents identified as female, accounting for 68.5%, while male respondents comprised 24.6%. In terms



of age, most respondents were between 20-35 years old (57.6%), followed by those aged 36-50 years old (29.1%). A smaller proportion of respondents were under 20 years old (7.9%), while those aged 51 years old and above comprised the smallest group (5.4%).

Regarding marital status, most respondents were single (70.4%), followed by those who were married (25.1%). Only a small percentage were divorced or widowed (4.4%). In terms of education, the majority of the sample had a bachelor's degree (60.6%), followed by those with vocational education (27.1%). A smaller percentage had a master's degree (11.8%), and only a very few had a doctoral degree (0.5%).

In terms of income, most respondents had a monthly income between 15,000-30,000 bath per month (51.7%), followed by those earning less than 15,000 bath per month (18.2%), and those earning between 30,001-45,000 bath per month (16.7%). The smallest groups were those with a monthly income of more than 60,000 bath per month (9.4%) and those earning between 45,001- 60,000 bath per month (3.9%).

Based on this information, it can be concluded that the majority of the sample group consists of relatively young individuals

(20-35 years old), primarily holding a bachelor's degree, and with a middle-range income level (15,000-30,000 bath per month).

### Descriptive Statistics

1. Table 2 shows the suitability of variables for data analysis through 47 questions, divided into 11 components. The Cronbach's Alpha coefficient for each construct was greater than 0.7, indicating that the questions measuring these constructs are appropriate.

2. The results of the survey of respondents' opinions on technology acceptance found that the overall average score was high ( $\bar{x} = 4.07$ ). When considering each aspect, the sample group gave the highest score to "Performance Expectancy" with an average score of 4.37, followed by "Privacy and Security" with an average score of 4.22, third was "Promotion Package" and "Partnership" with an average score of 4.17, fourth was "Effort Expectancy" with an average score of 4.15, fifth was "Price Value" with an average score of 4.09, sixth was "Hedonic Motivation" with an average score of 4.05, seventh was "Facilitating Conditions" with an average score of 4.04, eighth was "Habit" with an average score of 3.92, ninth was "Social influence" with an average score of 3.87, and tenth was "physiological needs" with an average score of 3.77.

**Table 2** Mean, standard deviation of respondent's opinions on technology acceptance

Constructs	Mean	SD
<b>Performance expectancy (Cronbach's alpha = 0.855)</b>	4.37	0.62
Food ordering applications are beneficial in your daily life.	4.33	.743
Food ordering applications help you order and make payments more quickly.	4.42	.705
Ordering food through an application saves you time and allows you to spend more time on other activities.	4.41	.751





Constructs	Mean	SD
Using a food ordering application you to order a greater variety of food each day.	4.32	.793
<b>Effort Expectancy (Cronbach Alpha = 0.792)</b>	4.15	0.69
Food ordering applications make it easy and straightforward for you to select menus and search for restaurants.	4.21	.754
You find the recommendations and descriptions in the food ordering applications clear and easy to understand.	4.23	.747
You are able to resolve issues encountered while using the food ordering application on your own.	4.03	.857
<b>Social Influence (Cronbach Alpha = 0.906)</b>	3.87	0.91
People you know encourage you to use this application for ordering food.	4.02	.948
You use the food ordering application because everyone around you does.	3.87	1.048
Using the food ordering application makes you feel modern.	3.98	1.000
Using the food ordering application makes you stand out among your friends.	3.65	1.177
<b>Facilitating Conditions (Cronbach Alpha = 0.851)</b>	4.04	0.75
You can always ask for help from others when you encounter problems using the food ordering application.	3.98	.937
The food ordering application can be integrated with other applications you use.	4.05	.907
You have sufficient knowledge to use the food ordering application.	4.20	.743
You can request assistance from the app's admin at any time when you face issues with the application.	3.94	.965
<b>Hedonic Motivation (Cronbach Alpha = 0.933)</b>	4.05	0.78
You enjoy using the food ordering application.	4.10	.823
Ordering food through the application is interesting to you.	4.16	.785
Using the food ordering application makes you feel excited.	3.94	.952
Using the food ordering application makes you happy.	4.05	.917
Using the food ordering application brings you pleasure.	4.01	.955
<b>Price Value (Cronbach Alpha = 0.916)</b>	4.09	0.73
The prices of food ordered through the application are reasonable.	3.96	.910
Ordering food with the food ordering application is cost-effective, and you are willing to pay for it.	4.16	.763
You can choose menu items at satisfactory prices when using the food ordering application.	4.21	.776
The food items listed in the food ordering application have attractive prices.	4.10	.848
Using the food ordering application is worth the price.	4.03	.887
<b>Habit (Cronbach Alpha = 0.949)</b>	3.92	0.98
You regularly order food from the food ordering application.	4.02	.973

Constructs	Mean	SD
You have developed a habit of using the food ordering application.	3.76	1.158
Using the application to order food and beverages is routine for you.	3.98	1.063
You are accustomed to using the food ordering application for purchasing food and beverages.	3.92	1.070
You consistently use the food ordering application for buying food and beverages.	3.93	1.083
<b>Promotion Package (Cronbach Alpha = 0.845)</b>	4.17	0.76
Discount promotions encourage you to use the food ordering application.	4.34	.823
Promotions influence your decision to use the food ordering application.	4.34	.817
The expiration date of promotions accelerates your decision to use the food ordering application.	4.06	.944
If the food ordering application allows you to become a member, you will not hesitate to sign up for the membership.	3.97	.973
<b>Privacy and Security (Cronbach Alpha = 0.792)</b>	4.22	0.76
The food ordering application has a secure payment process.	4.29	.720
The food ordering application has an order verification system for restaurants, riders, and consumers.	4.26	.746
The food ordering application does not disclose personal information to others.	4.13	.883
<b>Partnership (Cronbach Alpha = 0.880)</b>	4.17	0.71
The food ordering application has numerous restaurant partners, allowing you to choose from a diverse range of food options.	4.21	.815
A food ordering application with a large network of restaurants enables you to order from the restaurants you prefer.	4.26	.734
You enjoy searching for restaurants from the list of members within this food ordering application.	4.13	.852
You have confidence in this food ordering application because it features a large number of restaurants.	4.19	.821
Using a food delivery application with a vast network of restaurants makes ordering food more enjoyable for you	4.10	.853
<b>Physiological needs (Cronbach Alpha = 0.907)</b>	3.77	0.97
You use the food ordering application because you are ill or have health issues.	3.57	1.283
You use the food ordering application because you feel that the food is clean and safe (free from contaminants or harmful substances).	3.80	1.012
You use the food ordering application because it has a standardized food quality control process.	3.84	1.059
You feel that using the food ordering application helps you receive nutritionally appropriate food.	3.77	1.094
You feel the food ordering application helps you select food suitable for your	3.90	1.030



### Inferential Data on Hypothesis Testing Results

**Table 3** Testing hypothesis of age affecting technology acceptance of MFOA users in Bangkok

Technology Acceptance	Mean Values for Each Age Group				F-test (P-value)
	< 20 years old	20-35 years old	36-50 years old	Above 51 years old	
1. Performance Expectancy	4.15	4.34	4.45	4.33	0.850 ns(0.468)
2. Effort Expectancy	3.83	4.19	4.19	3.97	1.322 ns(0.268)
3. Social Influence	3.96	4.05	3.83	3.11	8.299*(0.000)
		3.11 < 3.83, 3.96, 4.05			
4. Facilitating Conditions	4.12	4.24	3.89	3.52	8.605*(0.000)
		3.52 < 3.89, 4.12, 4.24			
5. Hedonic Motivation	3.97	4.20	3.96	3.61	4.563*(0.004)
		3.61 < 3.96, 3.97, 4.20			
6. Price Value	4.25	4.24	4.01	3.53	7.541*(0.000)
		3.53 < 4.01, 4.24, 4.25			
7. Habit	4.22	4.16	3.72	3.27	7.993*(0.000)
		3.27 < 3.72, 4.16, 4.22			
8. Promotion Package	3.78	4.28	4.15	3.88	2.800*(0.041)
		3.78 < 3.88, 4.15, 4.28			
9. Privacy and Security	4.20	4.32	4.19	3.80	4.311*(0.006)
		3.80 < 4.19, 4.20, 4.32			
10. Partnership	3.82	4.30	4.15	3.76	4.937*(0.002)
		3.76 < 3.82, 4.15, 4.30			
11. Physiological Needs	4.05	4.00	3.58	3.13	7.803*(0.000)
		3.13 < 3.58, 4.00, 4.05			

\*p<.05, ns = not significant

From Table 3, it is observed that the age-related personal factors of the sample significantly affect the technology acceptance of food delivery app users in Bangkok at a statistical significance level of 0.05. The significant factors include: social influence, facilitating conditions, hedonic motivation, price value, habit, promotion package, privacy and security, partnership, and physiological needs, the age group aged 51 years old and over had a lower

mean score than the other groups.

**Table 4** Testing hypothesis of income affecting technology acceptance of MFOA users in Bangkok

Technology Acceptance	Average by Income Group					F-test (P-value)
	less 15,000 per month	15,000 - 30,000 per month	30,001 - 45,000 per month	45,001- 60,000 per month	More than 60,000 per month	
1. Performance Expectancy	4.37	4.34	4.41	4.35	4.38	0.097ns(0.983)
2. Effort Expectancy	4.12	4.18	4.28	4.09	3.99	1.001ns(0.408)
3. Social Influence	4.20	4.06	3.72	3.64	3.33	6.881*(0.000)
		3.33< 3.64, 3.72, 4.06, 4.20				
4. Facilitating Conditions	4.39	4.15	4.04	4.00	3.50	8.836*(0.000)
		3.50< 4.00, 4.04, 4.15, 4.39				
5. Hedonic Motivation	4.24	4.11	4.13	4.22	3.63	4.061*(0.003)
		3.63< 4.11, 4.13, 4.22, 4.24				
6. Price Value	4.30	4.22	4.05	3.88	3.67	5.381*(0.000)
		3.67< 3.88, 4.05, 4.22, 4.30				
7. Habit	4.24	4.01	3.86	4.14	3.46	3.641*(0.004)
		3.46< 3.86, 4.01, 4.14, 4.24				
8. Promotion Package	4.17	4.27	4.18	4.50	3.86	2.596*(0.037)
		3.86< 4.17, 4.18, 4.27, 4.50				
9. Privacy and Security	4.30	4.30	4.37	3.85	3.84	4.936*(0.001)
		3.84< 3.85, 4.30, 4.37				
10. Partnership	4.27	4.24	4.26	4.05	3.87	2.504*(0.043)
		3.87< 4.05, 4.24, 4.26, 4.27				
11. Physiological Needs	4.21	3.99	3.68	3.48	3.01	11.281*(0.000)
		3.01< 3.99, 3.48, 3.68, 3.99				

\*p<.05, ns = not significant

From Table 4, it is observed that personal income factors significantly impact the acceptance of food delivery app technology in Bangkok at the 0.05 statistical level in the following areas social influence, facilitating conditions, hedonic motivation, price value, habit, promotion package, privacy and security,

partnership, and physiological needs. The income group aged more than 60,000 baht per month had a lower score than the other groups.

## Conclusion and Discussion

The results of the survey of respon-



dents' opinions on technology acceptance found that the overall average score was high. When considering each aspect, the sample group gave the highest score to Performance Expectancy, followed by Privacy and Security, third was Promotion Package and Partnership, fourth was Effort Expectancy, fifth was Price Value, sixth was Hedonic Motivation, seventh was Facilitating Conditions, eighth was Habit, ninth was Social influence, and tenth was physiological needs.

In conclusion, the 20-35 years old group is the most significant for technology adoption, while the under 20 years old group shows the least interest. The 36-50 years old group should be engaged with practical, user-friendly approaches, and the 51+ years old group needs simpler, more supportive technology with a focus on comfort and security.

In the case of performance expectancy and effort expectancy, older users may have different perspectives than younger users in their perceptions of performance and effort expectancy. Familiarity with technology, ease of use, and technology use skills have a greater influence on technology adoption than older age. (Davis, Bagozzi and Warsha, 1989, pp. 983-989; Venkatesh, et al., 2003, pp. 467-471) confirmed that age affects the importance of both of these factors, and that technology adoption can vary by demographic characteristics such as age.

High-income users may choose more efficient and convenient technologies, while low-income users may choose technologies that are cheap and easy to use.

These results align with the previous

studies on technology acceptance influencing the intention to use MFOAs. For example, (Dan, Boonchoo and Sombultawee, 2018, pp. 363-365) found that technology acceptance factors impact the intention to order food through the Wongnai app with Lineman, varying by age group. This finding is also consistent with the study by (Neamsri, 2018, p.33), which that the majority of respondents with higher expenditures on Lineman services showed high acceptance levels of the app.

## Suggestions

### General suggestions

The study found that personal factors, such as age and income, significantly impact the importance of technology acceptance of MFOA users in Bangkok. Specifically, MFOA users within the age range of 20 to 35 years, who possess a monthly income between 15,000 and 30,000 Baht, prioritize privacy and security as their foremost concerns. This is followed by the importance of partnerships, promotion packages, facilitating conditions, price value, hedonic motivation, habit, social influence, and physiological needs, accordingly.

First, privacy and security are considered the most important factors in using MFOAs because this group of users is highly concerned about their personal data. Second, partnerships with health-related brands, such as clean food brands, health drinks, or fitness equipment. can effectively meet the needs of this group. Third, a promotion package, such as offering discounts on healthy food orders along with partner products, will help increase sales opportunities.

For a group of older than 51 years old, app developer should focus on the following issues.

**Simplify the technology experience:** Users in this age group tend to struggle with more complex or tech-heavy features. Focus on social influence and peer support: Since the 51+ age group shows more interest in Social Influence, incorporating social proof like testimonials or endorsements from people in their peer group could help influence their behavior.

For a group of higher-Income (more than 60,000 baht per month), app developer should focus on the following issues. Prioritize privacy and security: Higher-income groups place significant importance on Privacy & Secu-

urity. Offer premium features and convenience: Higher-income individuals are less concerned with cost-related factors and more focused on efficiency, convenience, and the quality of their experience.

Based on the research findings regarding personal factors influencing the acceptance of MFOAs technology in Bangkok, the researcher offers the following suggestions for future research as follows; First, future studies should explore additional factors affecting the decision to use MFOAs, such as trust, to provide new academic insights. Second, other independent variables impacting the choice of apps should be investigated to gather useful information for future business operations by entrepreneurs.

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