# Acceptance of Food Delivery Application Influencing Consumer Purchasing Decisions

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### **ABSTRACT**

Abstract—This research aimed to study the acceptance of food delivery factor consisting of that influence consumer purchasing decisions. The sample group consisted of 400 consumers who has shopped through social media platform, selected from the population using multi-stage sampling method. Data was collected using the generated questionnaires with the validity and reliability tested. The statistics used in the analysis were mean, standard deviation, Pearson correlation coefficient and Multiple regression analysis. The results of the research revealed that the respondents emphasized on entertainment, interaction, trendiness, customization, and word of mouth be able to jointly predict the satisfaction of purchasing products through the social media platforms, which all variables were able to explain the variance of purchase satisfaction through the social media platforms 51.12 percent. The multiple regression coefficients as standard scores, it was found that the highest multiple regression coefficients were interaction ( $\beta$ =0.257), followed by trendiness ( $\beta$ =0.226), electronic word of mouth ( $\beta$ =0.159), and entertainment ( $\beta$ =0.124), respectively.

Keywords—Consumer purchasing decisions, Food delivery, Online marketing innovation

### INTRODUCTION

At present, the change for the business industry, known as the "Digital Disruption" era, is the disruption of business caused by digital and technological developments by changing the way consumers reach with new platforms. It impacts industries such as finance, transportation, education, hospitality and others with more efficient technology. As a result, the business is alert and has to adjust and change all the time as well as increase business competition. However, it is not only cause changes in the way we do business and the production process, but it also affects the country's economic and social system through changing consumer behavior. With the era of digital disruption permeating all around us. including the behavior of consumers currently using "Mobile phone" or "Smart Phone" which can be considered that the phone can satisfy consumers in many forms. Able to conduct various transactions online with easier communication Awareness of news quickly and as a channel to increase trade channels for entrepreneurs (Treechajaruphan, 2017).

The food industry is also affected by this quite a bit when food delivery services have shifted consumer preference for food delivery businesses. Survey results by Electronic Transactions Development Agency, Ministry of Digital Economy and Society (ETDA, 2020) revealed that the value of e-commerce of Thailand is growing steadily by 8-10 percent per year, with up to 45 million users with changing behavior using the Internet more, resulting in the e-commerce market of Thailand grow more and result in the increase of online sellers and buyers. Corresponding to the increasing number of platforms of Thai and foreign entrepreneurs, the value of e-commerce in Thailand from 2019 to 2020 has been found to increase continuously. In 2020, the value was 3,150,232.96 million baht, which increased from Year 2019, 14.04 percent.

The fact that food ordering services through online applications can continue to grow amid the current economic conditions in the country. This is partly because of the food delivery service that meets the needs of more Thai people who are living at home. Because the way of life of Thai people living in the city and the smaller number of family members makes cooking each meal more cost than buying ready-made meals from outside to eat. Including climate change, natural disasters that tend to occur frequently and the COVID-19 pandemic has prevented people from shopping in the usual way. All of which have directly contributed to the growing market of food delivery services. These applications are intermediaries to buy and deliver food to consumers at actual cost of food and charge shipping according to distance.

Food ordering applications are a technology that accelerates expansion and increases revenue distribution for players in the food delivery chain with the average annual growth of as much as 10% per year. The food delivery business today has evolved greatly in terms of speed and variety of food options more. These are the result of the coming in of players from outside the industry that offer new options to consumers including to extract market share in the food delivery business. The entry of the food delivery application not only contributes to the food delivery business to accommodation has expanded, but also contributed to the distribution of income for players in the business chain as well. At the same time, it poses an interesting challenge for entrepreneurs involved in the restaurant business. As a result, entrepreneurs need to increase their competitiveness in order to meet the needs of consumers even more, for example, by increasing food ordering channels and a variety of food types, including the use of environmentally friendly food packaging (Nuchanart et al., 2019, Chitraphan, 2022).

Therefore, the researcher is interested in the study of acceptance of food delivery application influencing consumer purchasing decisions in Thailand. This research will benefit businesses in using the results of the study as a guideline for developing innovations in service providers' online food ordering applications. As well as the development of service provision and the formulation of appropriate marketing strategies for restaurant business operators in order to increase market share for online delivery distribution channels.

# LITERATURE REVIEWS

### Adoption of innovation

Rogers (1983) described innovation as an idea, action, or object, which is perceived by a person or society as something new. It's not necessarily the first time that innovation has to happen. While Toffler (1980) defined innovation as having three characteristics that are creative and feasible, practical application, and dissemination to society. When various innovations start to occur, it will result in the diffusion of innovation, which is the process of transferring ideas and the practice of information or behavior until the result of acceptance.

Rogers (1995) explains that embracing innovation It means the decision to fully implement the innovation and thinking that innovation is the best way and more useful than the old thing. Acceptance is a process that occurs within a person's mind, starting from the knowledge of the technology until accepting and applying them to use in the end which is similar to the process of learning and decision making. The acceptance process is divided into 5 stages: 1) Awareness Stage 2) Interest Stage 3) Evaluation Stage 4) Trial Stage and 5) Adoption Stage. However, the acceptance of an innovation by individuals over a period of time may differ in terms of the speed of acceptance of the innovation, the number of recipients of the innovation, and the persistence of accepting the innovation. In addition, Rogers (1983) describes innovation adoption, which consists of five attributes as follows:

- Comparative advantage refers to the perception that innovation is better, more useful than traditional methods such as more convenient, faster, better returns. In the better part, if it is more useful than disadvantage. It will make the acceptance of innovation more likely to be accepted. It can be measured by economic efficiency, convenience, image enhancement. or feeling of satisfaction. The cost and social status incentives are components of the adoption of comparative benefit attribute innovations.
- Compatible features Compatibility refers to how the recipient of the innovation feels or thinks they are compatible or compatible with existing values. If any innovation is consistent with the original idea, its acceptance tends to be higher based on past experience. As well as the needs of new ideas, the compatibility of innovation with things makes the acceptor feel more confident and less risky, making it feel more meaningful.
- Complexity refers to what a person feels that innovation is difficult to understand and difficult to implement, which required some time will be accepted. If the innovation that is used is very complicated, acceptance will be less and cause resistance.
- Trainability refers to what a person receives innovation without conditions and can bring that innovation to trial which may be only partial and when used to try and achieve the desired success will lead to acceptance of that innovation.
- Observability refers to the result of innovation that can be seen or observed by individuals within society. This will make the acceptance of innovation more weigh. To make it visible in a tangible way, it is what makes innovation more accepting than abstract or mere imagination.

### Purchase decision

Schiffman & Kanuk (1994) defined the purchase decision as it is the process of choosing a consumer's product. Purchasing is a mental and physical activity that can occur over a period of time causing a purchase and may make a purchase decision according to other people. Engel, Blackwell & Miniard (1990) stated that consumers will buy a particular product, there has to be a process from need to perception after using the product. The buying decision process can be divided into 5 steps that are *Problem Recognition* is the first step in the buying process that recognizes one's own problems or needs. Marketers therefore stimulate products to make consumers more interested in the product. *Information Search* refers that consumers will seek information to support their purchasing decisions. *Evaluation of Alternatives* refers when consumers have received information and then analyzed the advantages and disadvantages. *Purchasing Decision* refers that after evaluating the best option, decision-making is made in areas such as brand, store, and quantity. *Post-purchase Behavior* refers that after the consumer purchases the product, the attitude of the product is perceived and evaluate the product and satisfaction depends on product features that meet consumer needs.

#### Related Works

The research of Buakajorn (2013) studied the characteristics of people and innovations that influence the behavior of using mobile applications of consumers in Bangkok. The results showed that the attributes of innovation in terms of compatibility and complexity is related to the behavior of using applications in terms of installation channel, age, occupation, and average monthly income. The attributes of innovation in terms of relative advantage, compatibility, complexity and trainability correlated with application price, gender, age, education level, occupation, average monthly income. As well as, attributes of innovation in term of observability is related to the behavior of the application in terms of the type of application used. Moreover, the study of Waewsak (2013) on the acceptance of innovations that influence the purchasing behavior of smartphone applications among consumers in Bangkok. The results showed that acceptance of innovations in terms of relative advantage and usability were overall correlated with application purchase behavior in terms of average monthly purchase costs. As well as the adoption of innovations in term of complexity as a whole correlated with the application usage.

### **METHODS**

# Population and sampling

This research is a quantitative research. (Quantitative Research) Population is people who have used online food delivery service in Thailand for whom the exact population is unknown. Therefore, the sample size was determined according to the formula of Cochran (1977) at 95 percent confidence level. A sample of 400 people was obtained.

Tools used in this research is a questionnaire created by the researcher and in accordance with the definition of operations according to the characteristics to be measured, divided into 3 parts, consisting of demographic data, innovation adoption of food delivery application and consumer purchasing decisions. The estimation scale type of questionnaire was 5-level Likert's scale. In this regard, the researcher will arrange for a pre-test with preliminary questionnaire of 40 sets. The results of the confidence check were the confidence values of each question were between 0.7-1.00 and got the total confidence of 0.875, which passed the reliability criteria (Hair et al., 2010). Additionally, the questionnaires generated were subject to content review from the advisor already. Therefore, it was concluded that the questionnaires could be used to collect data.

Statistics used in data analysis, the researcher used descriptive statistics to describe the demographic characteristics such as frequency, percentage, mean and standard deviation. As well as the inferential statistical analysis was used to test research hypotheses by using Pearson correlation coefficient analysis and Multiple regression analysis.

### RESULTS

### Descriptive results

The demographic information of the samples group consisted of 400 samples. Most of them accounted for 51.5% were females, 35.25% were between 21-30 years of age, 45.20% were married, 47.0% had the highest level of education at the bachelor's level, 33.5% were engaged in private company employees, and 31.75% had their monthly personal income level between 15,001-30,000 baht.

The descriptive data on acceptance of food delivery application among service users in Bangkok is at a high level. If considering each aspect, the first is the aspect of compatibility attributes were the most, followed by complexity attributes at a high level, trialability attributes at a high level, relative advantage attributes at a high level and observable attributes at a high level, respectively. The purchase decision was found that the overall decision to use the food delivery service was at a high level.

### Hypothesis testing results

The analysis of the acceptance of food delivery application influencing consumer purchasing decisions, it was found that attributes of innovative in the aspect of the comparative advantage, compatible, complexity, trialability and observability were able to predict the decision to use food delivery of the service users in Bangkok with a statistical significance at the value of F=52.458. All 5 variables could explain the variance of the users' decision to use the mobile phone system service ( $R^2$ ) at 61.25%. When considering the multiple regression coefficient in the form of a standard score, it was found that the forecaster with the highest multiple regression coefficient were the comparative advantage attribute ( $\beta$ =0.407), complexity attribute ( $\beta$ =0.265), compatibility attribute ( $\beta$ =0.224), and observability attribute ( $\beta$ =0.186), respectively, which was consistent with the research hypothesis at a statistically significant level of 0.05. While trialability attribute did not affect the decision to use food delivery service.

### CONCLUSION AND FUTURE WORK

## Conclusion and discussion

The overall acceptance of the food delivery service innovation among Bangkok users is at a high level. When considered on an individual component, the adoption of compatibility attribute is the most valuable, followed by complexity attribute at a high level, trialability attribute at a high level, relative advantage attribute at a high level, respectively, and the last one is an observable attribute at a high level. This is consistent with the research of Moungkeaw (2011). It was found that the opinions on factors of technology innovation in general were at a high level when considering each aspect is also at a high level. It shows that the sample group pays attention to the characteristics of accepting innovation in various fields at the same high level. By prioritizing the compatibility attribute at the first level, it shows that the compatible attribute, which is the degree to which innovation is perceived as being consistent with technology or traditional functionality, is compatible with the values, needs and experiences of its recipients (Rogers, 1995; Lin, Seedy & Deron, 2011). This may be because food delivery service is an application on mobile phones have become part of the daily life of most people in society for communication that is suitable for daily life. The observable attribute, meaning the degree of effect of innovation is visible or observable by individuals within a society (Rogers, 2003). According to the individual innovativeness theory of Roger (1995), the individual who is persuaded to be an innovator will accept innovation faster than those who have not received it or received it less. According to this theory, innovation in the individual can be divided into five groups: Early Adopters, Early majority, Late Majority, and Laggards. Therefore, observability characteristics depend on the individual innovativeness theory. The early adopter group will embrace and implement new innovations which is motivated by the newness of the product or service. It is challenging and fulfilling a deep emotional psychological need in leadership or the desire to try new things and to have new experiences before anyone else and like to use new innovations (Moore, 1995).

The results of the analysis of the influence of all factors affecting the decision to use the food delivery service of users in Bangkok was consistent with the research of Buakajorn (2013), Kongchom (2016), and Kerdngern et al. (2021). In addition, the result found that the comparative advantage attribute had the most effect on the decision to use food delivery service. It shows that the vast majority of service users want something better than what is already available, or more useful than what was already by assessing the comparative advantage in economics

which is value or efficiency. Including social comparative advantage is convenience or satisfaction. This is consistent with the research by Buakajorn (2013) found that the characteristics of innovation in terms of benefits from use in comparison with existing products are related to the behavior of using apps in term of the price of application used, gender, age, education level, occupation, average monthly income.

The results of the analysis revealed that the innovation adoption attribute in term of trialability did not influence the decision to use food delivery service which is inconsistent with the research hypothesis. This may be due to the recommendations from people who have used the service continuously before are still insufficient. Including the service provider's information is not enough so that user cannot compare the information of the service provider to make a choice.

### Recommendations and future work

The results of the research reflect that restaurant using online delivery distribution channels must place great emphasis on building acceptance of innovation among customers. It should emphasize at the features of the application that can display various functions to meet the needs of customers who want information for comparison before making decision to order food, such as searching for information about food, showing details of food, food ordering, payment, delivery, and food cancellation. It also has to show to customers that innovations of food delivery are better than traditional implementations, but are still consistent with existing values which can be clearly seen concrete. It's not just a thought or just a feeling. For the recommendations in future research, more studies should be done using this conceptual framework for other types of services and should conduct research studies with qualitative research in order to verifying research findings using insights and study the impact of other factors further.

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