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THE USAGE ATTITUDE OF INNOVATIVE ONLINE FOOD ORDERING APPLICATIONS OF EMPLOYEES IN LAEM CHABANG INDUSTRIALS ESTATE, CHONBURI

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Abstract

The pandemic of Coronavirus resulted in the change of ordering food method. Online ordering food was the new one that was famous in this period. The purposes of this research are 1) to study the usage attitude of online food ordering technology of employees who work at Laem Chabang industrial estate, 2) to study the factors that affect the usage attitude of online food ordering technology of employees who work at Laem Chabang industrial estate. The data were collected through a self-administered survey questionnaire. The target population is employees who work at Laem Chabang industrial estate. Purposive sampling is used for the collection of data from 400 employees. The data were analyzed through multiple regression. The results revealed that 1) perceived ease of use of online food ordering applications has a positive influence on the Perceived usefulness of online food ordering applications with a statistically significant level of 0.05, 2) perceived ease of use of online ordering food applications has a negative influence on Behavioral intention to use of online food ordering application with a statistically significant level of 0.05, 3) perceived usefulness of online food ordering applications has a positive influence on Behavioral intention to use of online food ordering application with a statistically significant level of 0.05.

Keywords: Food-Ordering Application Technology, Usage, Attitude, Employee

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Introduction

The current communication technology has greatly developed and progressed. The most popular communication device are smart mobile phones. The proportion of sales of smart mobile phones today has increased dramatically. The ability of mobile phones that was originally just for communicating through conversations only has been developed. Nowadays, the users can do more activity from mobile phones. This is resulted from the further development of applications on mobile phone devices. The telephone service providers or many software developer companies turn to develop applications on mobile phones. As applications are more effective, the smart mobile phone users tend to use various applications in responding more daily activities such as communicating, sending messages or pictures, booking a restaurant queue, retrieving information and ordering products online. This is correspondent with the tendency of Thai people to use the internet at a higher rate. At present, Thai people have up to 50.8 million internet users (Ministry of Digital Economy and Society, 2022) and the smartphone users use the internet at an average of 10.22 hours (Electronic Transactions Development Agency, 2020).

However, with the COVID-19 crisis situation that started from the rapid spread of the COVID-19 virus until becoming a global public health crisis, the governments in many countries have to take measures with a big lock down to limit the spread of the virus. This directly affects people's lives and affects the economic activities of countries around the world which must be stopped at the same time (Pearmunwai, Sirinon, & Susena, 2022). The stagnation of production activities along with a severe drop in income and purchasing power have spread into a global economic crisis (Chantaphong & Tonghui, 2020). Many countries are trying to reduce the infection risk by asking for cooperation in social distancing. Nevertheless, the fact that many people have to detain at home is instead a pressure to motivate lifestyle behavior to change. Many people have to adjust their lifestyle including wearing a mask, carrying alcohol spray. This also affects eating habits including the closing of restaurants or changing the lifestyle of eating at restaurants to ordering online resulting in the changes in eating behaviors. When the government begins to relax various measures in controlling the spread of the virus, the behavior of ordering food online is still ongoing making these behaviors become the New Normal of modern consumers.

Online food ordering has played an important role during the COVID-19 crisis acting as an intermediary between restaurants and consumers. The cooperation between service providers is a channel that allows businesses to have more opportunities to reach customers. Because most consumers are unable to travel to buy food, they have to order food and products through online channels. Even after the COVID-19 crisis, some employees are still accustomed to ordering food to eat. This makes the use of online food ordering applications play a more important role in our daily lives. However, when the employees order food to eat, the companies still have the canteen cost causing the companies to have problems with welfare management that does not meet the employee's demands.

However, ordering food through online channels can still be done in some areas only. The area of Laem Chabang, Chonburi Province, is considered an area that can order food through online channels due to the large population living. It also has Laem Chabang Industrial Estate which is not far from Bangkok. It is one of the provinces in the Eastern Economic Corridor (EEC) project and is a tourist city. There are enough restaurants to serve in the area. Talking about the main population living in the Laem Chabang area, there are many private employees in Laem Chabang Industrial Estate. The lunch eaten during the day will only be found near the workplace or at the distributors provided by the factory. This makes the employees look for new alternatives. Ordering food through online channels can respond very well. However, ordering food through online channels is considered a relatively new to people in the current area. To increase the use of services depends on Technology Acceptance (Davis, 1989). This

is an important factor as it describes the acceptance of technology by users consisting of 2 factors; Perceived Ease of Use and Perceived Usefulness. These are important factors for business or service provision through technology. Zhou et al. (2010) found that the technology adoption is important and influences consumers in their decision to use technology as part of their lifestyle. From the aforementioned importance, the researcher was therefore interested in studying the “usage attitude of innovative online food ordering applications of employees in Laem Chabang Industrial Estate”. Such behavior directly affects daily life both at home and at work. Thus, the use of canteen in the workplace tends to decrease. The research findings can be applied in factories to adjust the costs of food for employees to meet the needs of employees as appropriate as possible.

The research objectives were 1) to study the usage attitude of online food ordering technology of employees who work at Laem Chabang industrial estate and 2) to study the factors that affect the usage attitude of online food ordering technology of employees.

Literature Review

Online Food Ordering Application Technology

Nowadays, technology plays a huge role in daily life, especially the technology in mobile phones called mobile applications. It is resulted from the development of program in order to meet the different needs of consumers and to meet the use of more diverse applications such as applications for hotels, applications for selling goods, services and applications for restaurants, etc. This is in order to reach consumers anywhere anytime. The development of such applications affects behavior from trading products or services through storefronts to online platforms which facilitates making a purchase decision or the process of choosing a product to responds to the real needs of current consumers.

The development of technology in mobile phone applications makes online trading easy and grow significantly. This has resulted in the growth of online food ordering applications as well. Therefore, it can be seen that the number of competitors in the market for online food ordering applications has increased. The food businesses have also turned to use online food ordering applications to serve customers making it easy for customers to access the restaurants. The rapid expansion of application technology has also caused a rapid change in consumer behaviors.

Innovation Acceptance

Thonchai (2016) stated that technology acceptance means making a decision to use both concrete and abstract technology until being sure that the technology can certainly provide benefits followed by investment and acceptance. The decision time of acceptance is not definite depending on the person and nature of technology.

The Technology Acceptance Model (TAM) (Davis, 1989, cited in Samnuanklang, 2016) has the following main factors: 1) Perceive Ease of Use which refers to the degree of user expectation of the information system being developed and intended to be used. It must be easy to learn to use and does not require much effort. In addition, the Perceive Ease of Use has a direct influence on the use of the system and has indirect influence on the use of the system through perception. 2) Perceive Usefulness refers to receiving know that the information system used is beneficial. The use of information systems that have been developed will create more efficiency. The perceived benefit directly influences the intention to use the information system. 3) Attitude towards Use refers to the user’s attitude which is the intent that arises from the perceived benefit and Perceive Ease of Use of the system. If the user perceives that the technology is useful or easy to use, the users will have a good attitude towards that system and it will affect the intent to use the technology. 4) Intention to Use refers to the intention that the user attempts to use the technology and the possibility of accepting and continuing to use.

Palaboon (2015) has studied and found that Perceived Ease of Use factor, emotional motivation, social influence, perceived benefits, and facilities in use are the factors affecting people's willingness to use financial transaction services via the Thai government's Prompt Pay system. Moreover, Pithiwatchotikul (2015) studied and found that acceptance of mobile phone technology in terms of perceived usefulness, perceived ease of use, awareness of financial resources, online advertising social media marketing, and online consumer behavior in terms of information efficiency affect consumers' willingness to buy products online through applications in Bangkok. The research findings of Srirojanakul (2017) revealed that working people with different demographic characteristics had no significant difference in the level of innovation acceptance. In addition, the results of the research findings of Guppakun & Rattanapongpinyo (2018) revealed that different ages affect the acceptance of using the application to make food ordering. The relationship was found between technology factors and the relationship of consumer behavior factors in the same direction as acceptance of food ordering applications. The research findings of Nurittamont & Charoenkitthanalap (2018) revealed that the factors of word-of-mouth communication, trust and self-efficacy influence technology adoption. As for the acceptance of technology, both perceived ease of use and perceived benefits influence the intention to use payment services via QR code applications via mobile phones for new generation consumers. In addition, the research findings of Kotcharit & Dampitakse (2020) revealed that the acceptance of Cloud system (Perceived knowledge benefit, perceived ease of use and technology awareness) and the organizational environment (factors within the organization and environmental factors outside the organization) affect the decision to use accounting information systems in the business sector for bookkeepers. Besides, the research findings of Khunthong et al. (2020) revealed that the factor of innovation use acceptance (performance expectation from use and social influence), factors of acceptance of mobile phone technology (recognition on the benefits of using and perceived ease of use), and online consumer behavior factors of using smartphone payment systems with Near Field Communication (NFC) technology (continuity and online awareness) affect the intention to use financial technology.

Hypotheses

- 1) Perceived ease of use of online ordering food applications has influence on the Perceived usefulness of online food ordering applications.
- 2) Perceived ease of use of online food ordering applications has influence on Behavioral intention to use of online food ordering application.
- 3) Perceived usefulness of online food ordering applications has influence on Behavioral intention to use of online food ordering application

Research Conceptual Framework

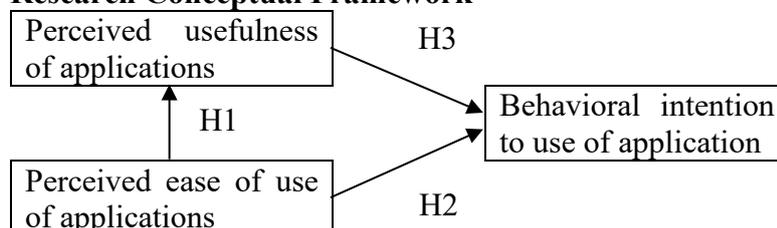


Figure 1 Conceptual framework for the research on usage attitude of innovative online food ordering applications of employees in Laem Chabang Industrial Estate, Chonburi Province

Research Methodology

Population and Sample Group

The population of this study is 20,780 employees at Laem Chabang Industrial Estate, Chonburi Province (Department of Industrial Works, 2022). For the sample group, the study has calculated the sample size using ready-made tables of Yamane (1967). The sample size of 400

people was calculated. For the Qualitative Research, the population used in this research was 20,780 employees of Laem Chabang Industrial Estate, Chonburi Province (Department of Industrial Works, 2022). The sample size was determined by Yamane's formula which determined 400 samples calculated as follows: $n = \frac{N}{1+Ne^2}$ with the error value of estimation (e) equal to 0.05. The calculation result is $n = \frac{20,780}{1+20,780(.05)^2} \approx 400$ samples.

Data Collection and Data analysis

The researcher uses random sampling of non-probability. The data was collected from the target population by sending via Google Form to collect data from employees in Laem Chabang Industrial Estate. For quantitative research, this research analyzed general data including descriptive statistics using the SPSS (Statistical Packages for the Social Science) program. The details are as follows; 1) Data analysis with descriptive statistics and check-list questionnaires for personal data analysis of respondents. It includes information about gender, age, education level, income and application experience. The frequency was found and summed up as a percentage for the estimation scale. The mean (\bar{X}) and the Standard Deviation (S.D.) were used with the Content Analysis and summarized as the frequency. 2) Inferential statistics were studied by using equation analysis of Multiple Regression.

The researcher brought the draft questionnaire that was created together with the assessment form to the experts who have the knowledge and experience in the field to study and consider the questionnaire for 5 persons in order to find the quality of the tool again. In calculating the Index of Item-Objective Congruence (IOC), each question has 3 options. If the question is consistent with the question and the research objectives at the valid level, the value will be 1, not sure will have the value of 0, invalid will have the value of -1. All values shall substitute the following formula:

$$IOC = \frac{\sum R}{N}$$

Whereas $\sum R$ is the sum of the decision scores on that question from the experts.

N is the number of experts.

The criteria for judging the Index of Item-Objective Congruence (IOC) is $IOC > 0.50$. It shall be considered that the measurable question corresponds to the research objective. If the $IOC \leq 0.50$, it shall be considered that the question is inconsistent with the research objective.

From the result of checking the Index of Item Objective Congruence (IOC), the researcher used such value together with the assessment form of the expert to be used as a guideline for improving the questionnaires. For this research, the value is between 0.80-1.00.

The researcher took the questionnaire that had been evaluated by experts based on the Index of Item Objective Congruence (IOC) check and used it for the Try-Out with the population that are similar to the population to be studied this time for 30 people. The results from the Try-Out were taken to analyze by using the scores obtained from asking for opinions. The Discrimination was found in the part of question in the form of checklist with the Standard Deviation. The question looks like an approximate scale with the correlation coefficient to find the Reliability of the questionnaire. The question looks like an estimation scale to find the value of Cronbach Alpha (Silpcharu, 2017) from the SPSS program (Statistical Package for the Social Science for Windows). For the questions that are in the checklist form to analyze the standard deviation, the value was between 0.67-2.21. The questionnaire with a scale was estimated by the corrected item-total correlation analysis. The value was between 0.34-0.89. The questionnaire's confidence analysis by using Cronbach's Alpha Coefficient was 0.992.

Research Results

The results of the analysis on personal factors revealed that most of the samples were female representing 63.4%, aged between 25-35 years representing 62.2%, with the highest level of education at a bachelor's degree or equivalent representing 78.4%, respectively.

Table 1 Basic Statistics of Perceived Ease of Use, Perceived benefits of use, and Attitude towards use

Variables	\bar{X}	S.D.	Interpretation of result
Perceived Ease of Use	4.18	0.919	High
Perceived benefits of use	4.26	0.799	Highest
Attitude towards use	4.11	0.895	High

From Table 1, it was found that the innovation acceptance level in the perceived ease of use, perceived benefits of use, and attitude towards use can be ranked from the most to the least as follows; the perceived benefits of use, perceived ease of use and attitude towards use with the mean of 4.26, 4.18 and 4.11 respectively.

Hypothesis test results

The results of analysis on simple linear regression equations of perceived ease of use of online food ordering applications influencing the perceived benefits of using applications revealed that the perceived ease of use of online food ordering applications can jointly predict the perceived benefits of using the application at 44.20% (R Square = 0.442) with the correlation coefficient (R) of 0.665, a statistical significance at the 0.01 level, and a regression coefficient with significance. The perceived ease of use of the online food ordering application ($\beta = 0.705$, p-value < 0.05) influenced the perceived benefits of the application.

Table 2 Results of simple linear regression analysis of perceived ease of use of online food ordering applications influencing the perceived benefits of using the applications.

Variables	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
Constant	1.174	.194		6.041	.000*		
Perceived ease of use	.705	.044	.665	15.86	.000*	1.000	1.000

$r = .665$; R Square = .442; S.E.e = .459; F = 251.542; Sig = .000; Durbin-Watson = 2.093

Remark: * means statistical significance at the 0.05 level

From the analysis of simple linear regression equations on the perceived ease of use of online food ordering applications influencing the attitude of using the application, it was found that the perceived ease of use of the online food ordering application can jointly predict the attitudes towards using online food ordering applications at 45.80% (R Square = 0.458) with a correlation coefficient (R) of 0.676, a statistical significance at the 0.01 level, and a regression coefficient with significance. The perceived ease of use of the online food ordering application ($\beta = 0.769$, p-value < 0.05) influenced the attitude towards using the application.

Table 3 Results of simple linear regression analysis of perceived ease of use of online food ordering applications influencing the attitude towards using the application.

Variables	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
Constant	.866	.205		4.215	.000*		
Perceived ease of use	.769	.047	.676	16.354	.000*	1.000	1.000

$r = .676$; R Square = .458; S.E.e = .485; F = 267.462; Sig = .000; Durbin-Watson = 1.873

Remark: * means statistical significance at the 0.05 level

From the analysis of simple linear regression equations on the perceived benefits of using the application influencing the attitude of using the application, it was found that the perceived benefits of using the online food ordering application can jointly predict the attitudes towards using online food ordering applications at 41.10% (R Square = 0.411) with a correlation coefficient (R) of 0.641, a statistical significance at the 0.01 level, and a regression coefficient with significance. The perceived benefits of using the application ($\beta = 0.687$, $p\text{-value} < 0.05$) influenced the attitude towards using the application.

Table 4 Results of simple linear regression analysis of perceived benefits of using the application influencing the attitude towards using the application.

Variables	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
Constant	1.291	.197		6.537	.000*		
Perceived benefits of using	.687	.046	.641	14.868	.000*	1.000	1.000

$r = .641$; R Square = .411; S.E.e = .505; F = 221.062; Sig = .000; Durbin-Watson = 1.792

Remark: * means statistical significance at the 0.05 level

Conclusion and Discussion

The perceived ease of use of online food ordering applications has positive influence on the perceived benefits of using the application. This is because when using the online food ordering application, the employees have comments that online food ordering applications provide convenience to them. The users get to know the process of using it that is not too complicated. In addition, the service received was good and convenient making the employees feel that the online food ordering application is extremely beneficial to everyday life. This is correspondent with the research of Pithiwatchotikul (2015) who studied the “Intention to buy online products through applications”. The study revealed that the perceived ease of use of online food ordering application had positive influence on the perceived benefits of using the application.

The perceived ease of use of online food ordering applications had a negative effect on application usage attitudes. This is because, when using the online food ordering application, the employees have commented that the process of using the online food ordering application is too easy, especially the application process. As the user’s personal data must be filled in, the users are concerned about whether too few steps affect the security of their personal data. This is inconsistent with the research of Guppakun & Rattanapongpinyo (2018) who studied the “Acceptance of using food ordering applications”. It was found that the perceived ease of use of food ordering applications had positive correlation with the attitude towards the use of food ordering applications.

For the recommendations on the attitude towards the use of application, the research results revealed that the attitude of using the application had the least mean compared to other factors. It is probably because users may still have some concerns about the privacy of the service users. The provider of the online food ordering application should increase confidence in the storage of user data by adding a verification step and various payment channels to users of more online food ordering applications.

For the recommendations on the perceived ease of use of online food ordering applications, the personal data verification procedures should be improved so that users can feel the security of their personal data.

For the recommendations on the perceived benefits on the use of application, the service providers should develop the ease of use, variety of food, service, time saving so that users can feel the benefits they receive even more.

From the questionnaires that have been distributed by the researcher to the sample group of the employees working in Laem Chabang Industrial Estate, it was found that feedback was received through the questionnaires. It can be concluded that the users of online food ordering

applications encounter many problems from the riders or food delivery persons whether it is canceling the customer's order too late after accepting orders or problems with slow delivery. The service providers of online food ordering applications should add measures related to food delivery workers such as establishing service ratings of food delivery workers, etc.

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Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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