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**Technology Adoption Factors and Demographic Factors Related to the Behavior of the Mobile Banking Service to Pay for Online Purchases**



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## **Abstract**

The purpose of this Independent Study was to study of Technology acceptance in 2 topics including Perceived Usefulness and Perceived Ease of Use, and Demography factors affect to Mobile application actual use. The sample group used in the research was General public aged 18-60 years, both male and female were having behavior that used to buy products online and live in the Bangkok area of 400 people. The questionnaires as a tool in Data collection of the statistics used for data analysis are Frequency, Mean, Percentage and Standard Deviation and Pearson Correlation was used to test the relationship between variables in each hypothesis. T-test and One-Way ANOVA were used to test the sub-hypothesis. The result of the study found that the majority of the respondents are aged between 21-29 years, in bachelor's degrees ,and most majority income around 10,000-26,000. Technology Acceptance factors found out in Perceived Usefulness shown customers agree with the opinion that Mobile Banking helping customers easier and more convenience than usual. Based on the data analysis results for testing, the research hypothesis showed the benefits of the use of Mobile Banking, a factor of ease of use to Mobile Banking and education. Users who use a lower degree of Mobile Banking, compared to a higher degree of Mobile Banking Services, are based on statistically significant predicted assumptions at confidence level of 95%.

**Keywords:** Perceived Usefulness, Perceived Ease of Use, Mobile Banking, Online Purchase

## **1. Introduction**

Nowadays, the world has changed significantly. Enter the globalization period, the era in which the technology has added basic living factors. Technology is developing quickly and never ends. Simplify communication with ease The information is freely moving around the world. Many things are controlled electronically and the computer and the Internet come to play a more daily role in everyone's life. Nowadays, there are a lot of internet users, as well as making financial transactions through mobile devices. Changes in the behavior and attitude of consumers in financial transactions and technological changes in the financial world. This results in a variety of financial

services that facilitate and respond to new age-based consumer lifestyles from modern technologies and more mobile Internet access in today's society. It is used to make purchases of goods and services online, which, if the user is aware of the benefits and ease of use, the technology is facilitated by Mobile Banking payments, is one of the most popular technologies. The researchers would like to analyze the relationship of cognitive perception and ease of use, which is a factor of acceptance of the technology to the use of Mobile Banking services to make purchases online.

## **Objectives**

Analysis of Adoption of Technology on the issue of the perceived benefits and perceived ease of use. Including analysis of demographic factors The impact on the behavior of the Mobile Banking to pay for online purchases using the service.

## **Research Hypothesis**

1. Adoption factors relating to the behavior of the Mobile Banking service to pay for online purchases using the service in a positive direction. According to the model of technology adoption (the Model Technology, Acceptance).
2. Demographic factors related to the behavior of the Mobile Banking service to pay for online purchases using the service.

## **Conceptual Framework**

The literature review on the topic of concepts and theories. And related research The researchers used as a framework for analysis of technology adoption. The impact on the behavior of the application is available in the Mobile Banking, payment for online purchases. Using models based on the concept of technology adoption Davis(1989)) as a model in education. And additional inputs from other research, the study of technology adoption.

The independent variables used in the analysis is divided into two parts, one is the demographic, gender, age, education, occupation, income, the second is the adoption of technology. Reflections of variable 2 are recognizing the benefits of use) Perceived Usefulness: PU) and perceived ease of use (Perceived Ease of Use: PEU) and a variable one variable is the behavior of the user. the Mobile Banking application for payment for online purchases (Actual Use).

Variables of study

Independent variable

1. Demography

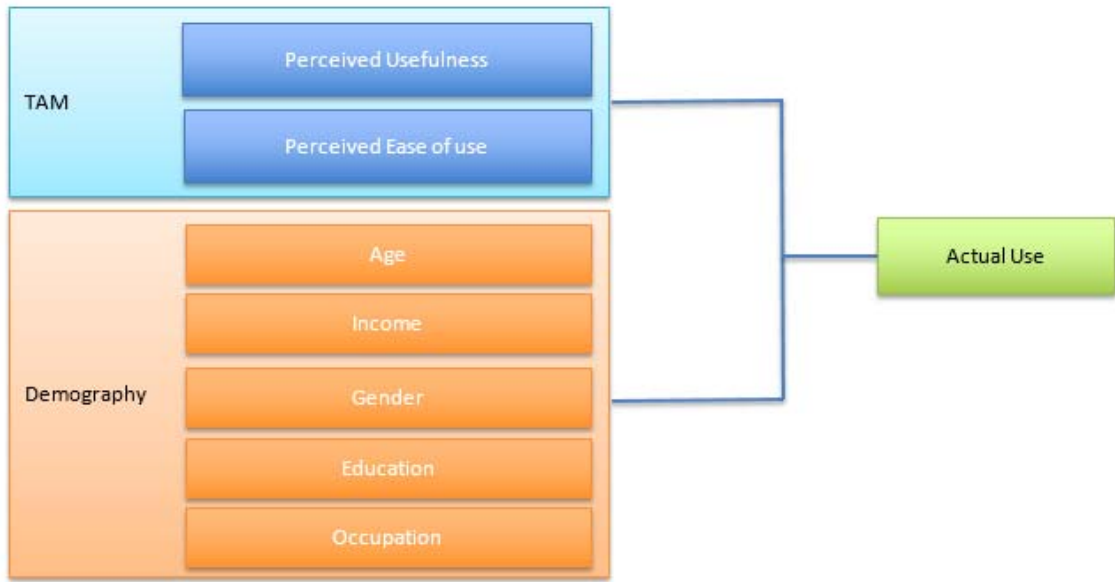
2. Technology Acceptance Model

- Perceived Usefulness

- Perceived Ease of use

Dependent variable

= Actual Use



**Figure 1** Conceptual Framework

## 2. Literature Review

### Technology Acceptance Model

Technology Acceptance Model (TAM; Davis, 1989) has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: perceived ease of use and perceived usefulness. An older adult who perceives digital games as too difficult to play or a waste of time will be unlikely to want to adopt this technology, while an older adult who perceives digital games as providing needed mental stimulation and as easy to learn will be more likely to want to learn how to use digital games. While TAM has been criticized on a number of grounds, it serves as a useful general framework and is consistent with a number of investigations into the factors that influence older adults' intention to use new technology (Braun, 2013).

### Concepts and theories related to demography

The study population characteristics that Assuming Mass audiences in group characteristics. The same people will look at the psychological similarities. The demographic differences are psychological characteristics that are different (USA prefecture of Niigata at Ewti. 2541: 105-109) as follows:

1. Gender Typically, a person will be different to the physical side. personality traits and quirks Sex is the same Women and men are different in terms of ideas and popular attitudes because social and cultural roles and activities of the two sexes are different, women tend to have a mental or emotional (Emotional) implacable and. housewife Also be convincing gullible women than men. Other features include a reasoning than women. And recognizes the news than women. A woman is sexually fathom the mind of a good man.

2. The age of the audience One of the characteristics that can be analyzed using a mass audience. Age is one factor that makes people have the same or different in thinking and behavior. Generally Younger people tend to have liberal ideas. While older people tend to have more conservative ideas. There is a difference of opinion about it. Age is also what defines the difference in the difficulty. Persuasion with When older people The opportunity to change or influence will be less. In addition, People with different ages Usually there is a need for different things, such as middle-aged and elderly. Always thinking about the safety of life and property. While young people may be interested in the education, justice, the people in each age group will be ideally initiation condition of the body is different.3. Education is an important parameter for the efficiency of communication receivers. It is believed that the study has given rise to different behaviors. Those with higher education Would be interested in a rational support. This is to be attributed to the purchase.

4. Professional people with a different concept there and the popularity of the different things out. People often get regardless halved welfare, dignity and prestige of the government. While the private sector may do so regardless of income and their status in society, even people who get together, it is of the opinion, values and behavior.

5. Income associated with the specified requirements. As well as people's opinions about things and people's behavior. People with a higher income or to use the media more often, which is seeking to apply for benefits in the future.

### **3. Research Methodology**

#### **1. Population and sample group**

##### **1. Population**

The population of the research is the use of Mobile Banking to pay for online purchases. And lived in Bangkok.

##### **2. sample.**

The sample for this research is the use of Mobile Banking to pay for online purchases. And lived in Bangkok Researchers have determined the size of the sample (Sample Size) 400 people by the size of the sample of the finished table Taro Yamane (Yamane, 1973) is a table that uses a sample size to estimate the proportion of the population. In a population of more than 100,000 people defined tolerances at 0.05 (Bgansmedeh Center poll survey, 2560).

#### **2. Research instrument**

Questionnaires distributed to targeted users is Mobile Banking to pay for online purchases.

#### **3. Experiment**

The regression equation model (such as Simple Regression and Multiple Regression) has an exception that the variable, as it is variable, is a quantitative variable, and the independent variable can be a variable that has both a quantitative variable and a qualitative variable. For the model, the regression of the equation (Probit Regression Analysis) is a model that describes the behavior of a variable, as it has two alternative data characteristics (Binary Choice Dependent Variable), in which the variable can be characterized as a qualitative variable.

#### **4. Research Results**

Factors perceived benefits of use (PU) is the independent variable is the P-value of 0.000, which is statistically significant. Because it is less than the significance level set at 0.05, meaning that when recognizing the benefits of increased user. Will result in a tendency of the probability that the behavior of the Mobile Banking to shop online in the next higher level of confidence at 95%

Factor perceived easy of use. (PEU) as the independent variable is the P-value of 0.574, which was not statistically significant. Since there is greater than the significance level set at 0.05

Factor, the age demographic of users of Mobile Banking with the P-value of 0.181, which was not statistically significant. Since there is greater than the significance level set at 0.05. Demographic factors on the income of the Mobile Banking service with the P-value of 0.626, which was not statistically significant. Since there is greater than the significance level set at 0.05.

#### **5. Research Discussion**

1. It is an important factor to recognize the benefits of application in mobile banking.

Therefore, every commercial bank should have a public relation to let them know. Use the mobile banking application and show the benefits of using the channel service. Financial transactions through ATMs or bank counters. Public relations can be through various channels, such as television, e-commerce, banks or shopping centers. In order to reach a wider customer base..

2. The ease of use of mobile banking applications is an important factor.

Users can decide to use the mobile banking application because of its ease of use, and users do not need any knowledge. You can use the application service. Therefore, the application designed by the bank and the users of the mobile banking system can be easily used. Application testing This will help to understand user-friendly services.

#### **6. Recommendation**

1. Further study should be done by querying users of the Mobile Banking application to the point of interest of interesting variables in addition to this study to bring matrangkrop ideas. To be interested in studying the environment, because the board of directors has seen that environmental factors are one of the factors that can affect the behavior of Mobile Banking.

2. For the next study, the scope of the sample should be expanded to cover the regional samples, such as the northern region. Central Region In the southern part of the western region, as a result of this study only 5 districts in Bangkok, therefore, it is important to study to provide comprehensive research for the regional level.

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