

**FACTORS MOTIVATING TO USE A CREDIT CARD AND ITS
FREQUENCY OF USE IN THAILAND**



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entitled
**FACTORS MOTIVATING TO USE A CREDIT CARD AND ITS
FREQUENCY OF USE IN THAILAND**

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FACTORS MOTIVATING TO USE A CREDIT CARD AND ITS FREQUENCY OF USE IN THAILAND

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ABSTRACT

This research studied the credit card usage behavior and factors in adoption by Thai consumers. There were two research objectives which are to study profiles of Thai credit cardholders and to investigate factors that influenced Thai consumers to use credit cards. The study used a conceptual model based on the technology acceptance model (TAM), which was proposed by Davis (1986) as a way of explaining the adoption of technologies. A quantitative approach was used was distributed Thai consumers that have credit cards (n = 284). The data was analyzed using descriptive statistics and regression analysis.

There are five hypotheses tested, including four that are internal to the TAM model and one related to external variables (credit card reward programs). Therefore it showed that perceived usefulness and perceived ease of use influenced attitudes. It also showed that promotions and discounts influenced consumer use of credit cards, but co-branding did not. Finally, attitudes toward credit card use had a moderate effect on credit card use. These findings generally supported the TAM as well as one of the external variables (loyalty programs), but did not show a strong influence from social norms.

KEY WORDS: Thailand Credit Card / Consumer Behavior / Reward Program / Loyalty Programs / Technology Acceptance Model

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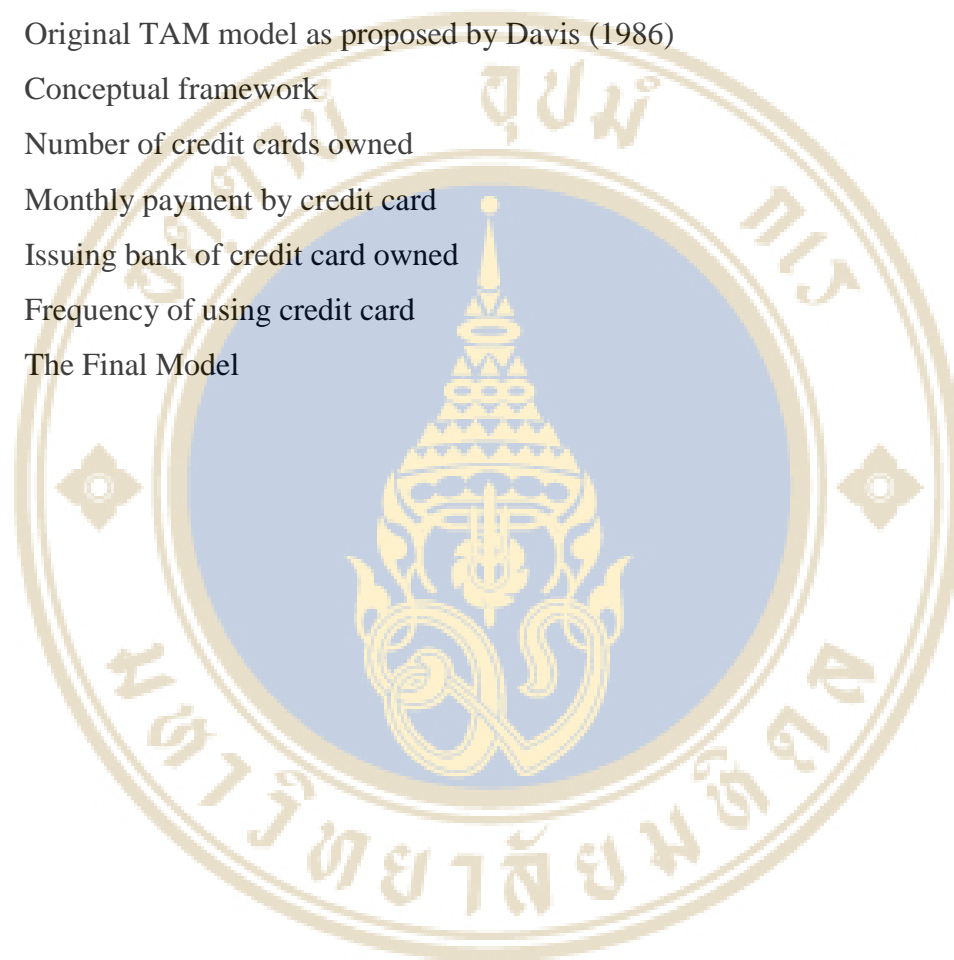
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CHAPTER I

INTRODUCTION

1.1 Introduction

The topic this research discusses is consumer adoption of credit cards in Thailand, including what kinds of consumers use credit cards and what factors can be identified in their adoption. Figure 1.1 shows the change in total credit card accounts in Thailand (including those issued by Thai commercial banks, foreign bank branches, and non-bank issuers such as company cards and affinity cards), based on Bank of Thailand statistics. These figures represent the total number of credit card accounts open in January of each year. (The most recent figures published for this report by the BoT are February 2012). This shows that there was a 75% increase in the number of credit card accounts in Thailand between 2005 and 2012. Based on these figures, the number of credit cards increased between 2.9% (in 2010) and 15.08% (in 2006) over the period. By 2012, the total number of credit cards in Thailand meant that in 2012, there was one credit card account for every 4.36 people in Thailand (based on population statistics from Trading Economics (2014)). Comparatively, in 2005 there was approximately one credit card account for every 7.46 people in Thailand. Thus, although credit cards are not routine or nearly ubiquitous like they are in some societies, they have become rapidly more popular over the past decade.

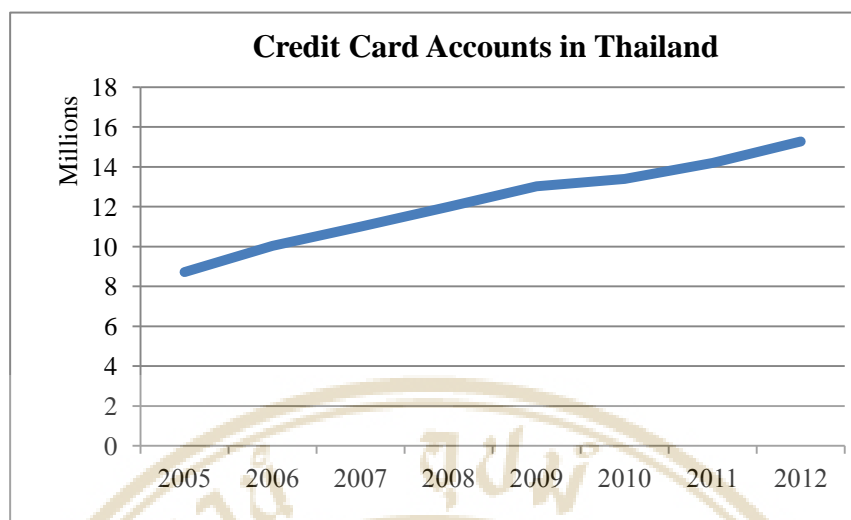


Figure 1.1 Changes in credit card issuance in Thailand, 2005 to 2012

source: Bank of Thailand, 2012

The rapid increase in the use of credit cards in Thailand raises the question of why they are increasingly becoming popular. One possible suggestion is that competition in the credit card industry has become increasingly intense, with domestic and foreign banks targeting Thai consumers. In 2002, the Bank of Thailand relaxed rules for credit card issuance, which resulted in banks reducing the requirements for credit cards (Kunvipusilkul, 2008). This has resulted in increased competition not just in the credit card industry, but also in the general consumer lending industry (Kunvipusilkul, 2008). There are also an increasing number of foreign banks and other companies offering credit cards in Thailand (Bank of Thailand, 2012). This suggests that there could be a growing number of competitors engaging in the industry. These factors make it likely that credit is more readily available in Thailand than it has been in the past. However, credit card adoption also requires consumers to see benefits and reasons to use credit cards.

1.2 Problem Statement

The problem this research will examine is why credit cards are adopted and used in Thailand from the consumer perspective. This will include the attitudes and perceptions of credit cards and other, specific factors (like loyalty programs) related to credit cards. The study will try to identify who uses credit cards in Thailand and the reasons they had for adopting them.

There are a number of studies that have identified reasons for adopting credit cards (Abdul-Muhmin & Umar, 2007; Carbó-Valverde & Liñares-Zegarra, 2011; Khare, Khare, & Singh, 2012; Sharpe, Yao, & Liao, 2012; Wirtz, Mattila, & Lwin, 2007; Worthington, Thompson, & Stewart, 2011). These studies have identified some common factors in credit card adoption, such as familiarity with technology and finance, convenience, status, and the benefits of credit cards (such as credit card programs). These studies have also identified some culturally specific adoption factors, such as cultural and religious attitudes toward debt (Abdul-Muhmin & Umar, 2007) or generational attitudes regarding the use of debt (Sharpe, et al., 2012). This suggests that the factors in credit card adoption are to some extent not universal, but instead are determined by cultural and situational factors. However, there has been no research on the adoption or use of credit cards in Thailand. Given the potentially large size of the Thai market, the country's economic growth, and the rapid growth of the Thai credit card market, this is a potentially significant oversight.

This research will focus on the Thai credit card market to try to determine what factors (if any) that could be identified from the existing research are shared. By identifying aspects of credit card adoption, it will be possible to understand somewhat better how Thai consumers have responded to growing competition and reduction in barriers to credit card issuance.

1.3 Research Aim and Objectives

The aim of this research is to examine factors motivating to own a credit card and its frequency of use in Thailand. There are two objectives in this research:

- To study profiles of Thai credit cardholders.
- To investigate factors influencing Thai consumer to use credit cards.



CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Foundations

2.1.1 Technology Acceptance Model (TAM)

The theoretical model used for this research is the technology acceptance model (TAM). The TAM was proposed by Fred Davis (1986) as a way to explain how users adopted technology in the workplace. The model was based on other attitude-behavioral models such as the theory of reasoned action (TRA), with the main difference being that there were only two attitudes that made a significant difference in the adoption of technology – Perceived Usefulness (PU) and Perceived Ease of Use (PEU) (Davis, 1986). This model has been developed and adopted over time, with subsequent models and extensions refining the core principles of the model (Chutter, 2009). Figure 2.1 shows the model as it was originally conceived.

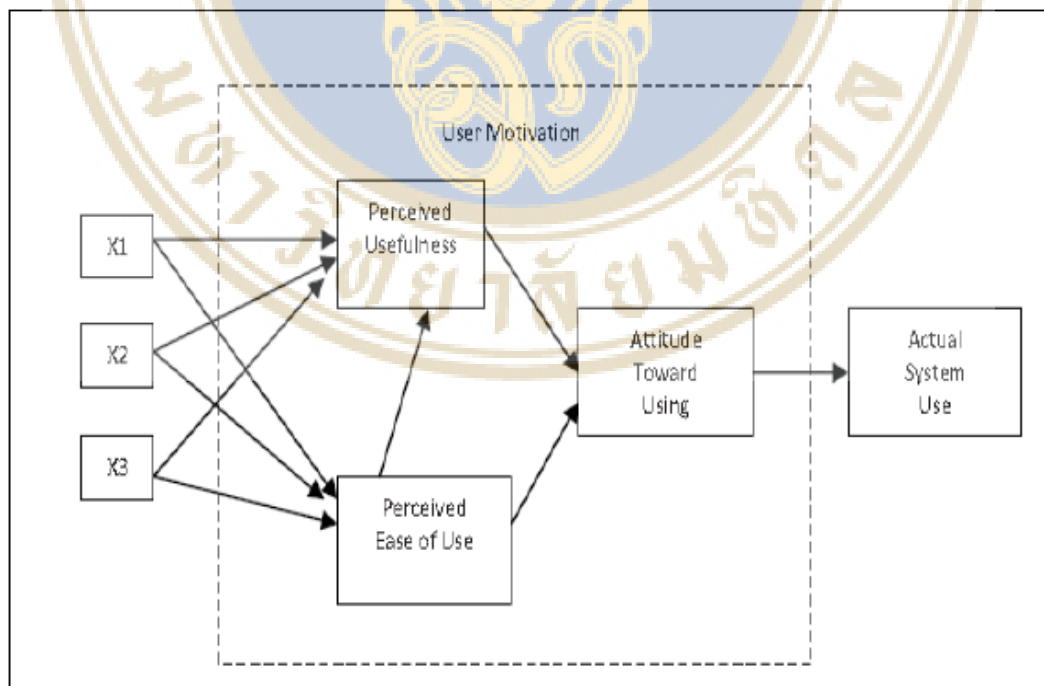


Figure 2.1 Original TAM model as proposed by Davis (1986) (Chutter, 2009)

The TAM model proposes the following variables. First, external variables influence both PU and PEU. These variables are selected based on the research type and context (Chutter, 2009). They influence PU (which relates to how the user perceives the technology could be used and what value this would have) and PEU (which relates to how easy the technology will be to use) (Chutter, 2009). PEU also influences PU. Both PEU and PU influence Attitudes toward using the technology (Chutter, 2009). Finally, Attitudes toward using the technology are the determining factor in actual system use. There are further relationships that can be found within the variables as well. For example, PEU has been found in some studies to have a direct relationship to actual system use (though this has not always been found) (Chutter, 2009). There are further refinements of the TAM model that could be used, including TAM2, TAM3, and UTAUT (the universal theory of adoption and use of technology) (Chutter, 2009). However, these models are typically more complex and more directly related to information systems and/or software use, which could make them less suitable for this research.

The TAM model has undergone considerable assessment and revision since it was first proposed. These assessments indicate both that it is highly reliable and that additional variables may need to be added. One meta-analysis of 88 studies across a variety of applications shows that the TAM is a generally reliable model for explaining technology acceptance (King & He, 2006). However, it also found that PEU could be unpredictable (although PU and BI are consistently strong), and that the correlations and path coefficients could vary widely (King & He, 2006). Another meta-analysis examined the TAM using moderating and subjective norm variables, including culture, type of technology, and type of respondent (Schepers & Wetzels, 2007). This study found that these factors had an effect, suggesting that external variables do need to be taken into account. A third study suggested interventions, such as marketing or training on the technology, should be taken into account (Venkatesh & Bala, 2008). Taken together these studies show that the TAM is suitable for use in technology acceptance studies and that it will need modification to the research situation.

2.2 Factors Influencing Credit Card Adoption

As noted above, the TAM works best when external variables or factors are taken into account which are relevant to the technology adoption in question (Chutter, 2009; Schepers & Wetzels, 2007). Factors that could influence credit card adoption and use have been sought out in the literature to make sure the research is consistent with existing information. Table 2.1 summarizes previous studies related to credit card adoption and the main factors they found. The main external factor that can be identified is credit card reward programs. There are also personal factors (such as demographics, attitudes, and knowledge). In this research, the main focus will be on the credit card reward program, since this can be objectively compared between different users. However, this is not guaranteed. For example, a study on credit card loyalty program use in China found that the programs were not generally well known and many credit card users did not make use of them (Liu & Brock, 2009).

Table 2.1 Summary of previous studies on credit card adoption

Authors	Study Topic and Population	Findings
Abdul-Muhmin and Umar (2007)	Credit card adoption in Saudi Arabia	Factors in credit card usage included gender (with women more likely to own credit cards) and attitudes toward debt. Attitude towards debt was significant in this population because of Saudi Arabia's majority Muslim population, and the rejection of debt within Islam, leading to varying but generally negative social attitudes toward it.
Wirtz, Mattila and Lwin (2007)	Credit card use in the United States	The authors found that share of wallet, or the amount spent on each credit card, was strongly affected by the attractiveness of the credit card's reward programs (which offer incentives like co-promotions, point collection schemes, and discounts). The more attractive the card's loyalty scheme, the more likely consumers were to use the card.
Carbó-Valverde and Liñes-Zegarra (2011)	Choice of credit card in Spain	This study found that reward programs were a major factor in the adoption and use of specific credit cards (though it did not examine the adoption of credit cards generally). It found that reward programs led to cash substitution, or consumers paying with credit or debit cards when they might have previously paid cash. However, this effect was stronger for debit cards.

Table 2.1 Summary of previous studies on credit card adoption (cont.)

Worthington, Thompson and Stewart (2011)	Credit card adoption in China	This study examined young and affluent Chinese as early adopters of credit cards. It found that factors including convenience, financial knowledge, and technological comfort and knowledge contributed to the adoption of credit cards.
Khare, Khare and Singh (2012)	Credit card adoption in India	This study found that the main factors involved in adoption of credit cards in young consumers in India included convenience and status, as well as a sense of belonging and fulfillment as measured by the Multi-Item Adaptation to the List of Values (MILOV). Reward programs were one of the factors examined as contributing to status and convenience, though they were not directly identified.
Sharpe, Yao and Liao (2012)	Credit card adoption in urban China	The main factors that were found in the adoption of credit cards included demographic factors (age, income, education, and occupation) and knowledge about credit cards (such as risk and consequences of default and knowledge of the credit system).

One of the main research gaps in this area is that there has been no research into credit card adoption in Thailand. This means it is difficult to determine which of these factors (if any) will influence Thai credit card adopters. This is one of the main reasons for doing this study.

2.3 Hypothesis Development

A preliminary conceptual framework for this research is shown in Figure 2.2. The conceptual framework mainly relies on the TAM to explain the adoption of credit cards as a new technology. This implies that certain relationships will be in place (Chutter, 2009). There are five hypotheses tested, including four that are internal to the TAM model and one related to external variables (credit card reward programs).

The importance of social norms was suggested in a meta analysis, which identified them as being a major factor in influencing consumers (Schepers & Wetzels, 2007). This can also be seen in some of the research on credit cards, for example in Saudi Arabia (Abdul-Muhmin & Umar, 2007). Thus, it is appropriate to include social norms even though it is not included in the basic TAM model as described above. The first hypothesis is proposed as follows:

H1: Social norms positively influence consumer attitudes towards credit card.

The second hypothesis is based on the relationships of PEU (H2) and PU (H3) on attitudes toward using the technology, as shown in the TAM model (Chutter, 2009). Convenience (an aspect of PEU and PU) was also a factor in some studies on credit card adoption (Khare, et al., 2012; Worthington, et al., 2011). The second and third hypotheses are proposed as follows:

H2: Perceived ease of use positively influences consumer attitudes towards credit cards.

H3: Perceived usefulness positively influences consumer attitudes towards credit cards.

The fourth hypothesis is based on the main external variable that was found. Reward programs (such as discount prices, point collection schemes, and co-promotions with other companies) are known to be a factor in credit card use (Carbó-Valverde & Liñares-Zegarra, 2011; Wirtz, et al., 2007). The fourth hypothesis is:

H4: Credit card reward programs (discount price, point collection schemes and co-promotions with other companies) positively influence consumer to use credit cards.

The final hypothesis is based on the concluding relationship path in the TAM, which is the relationship between attitudes and behaviors. In general, a positive attitude toward a technology will lead to its adoption (Chutter, 2009). The fifth hypothesis is:

H5: Consumer attitude toward credit card positively influences consumer to use credit cards.

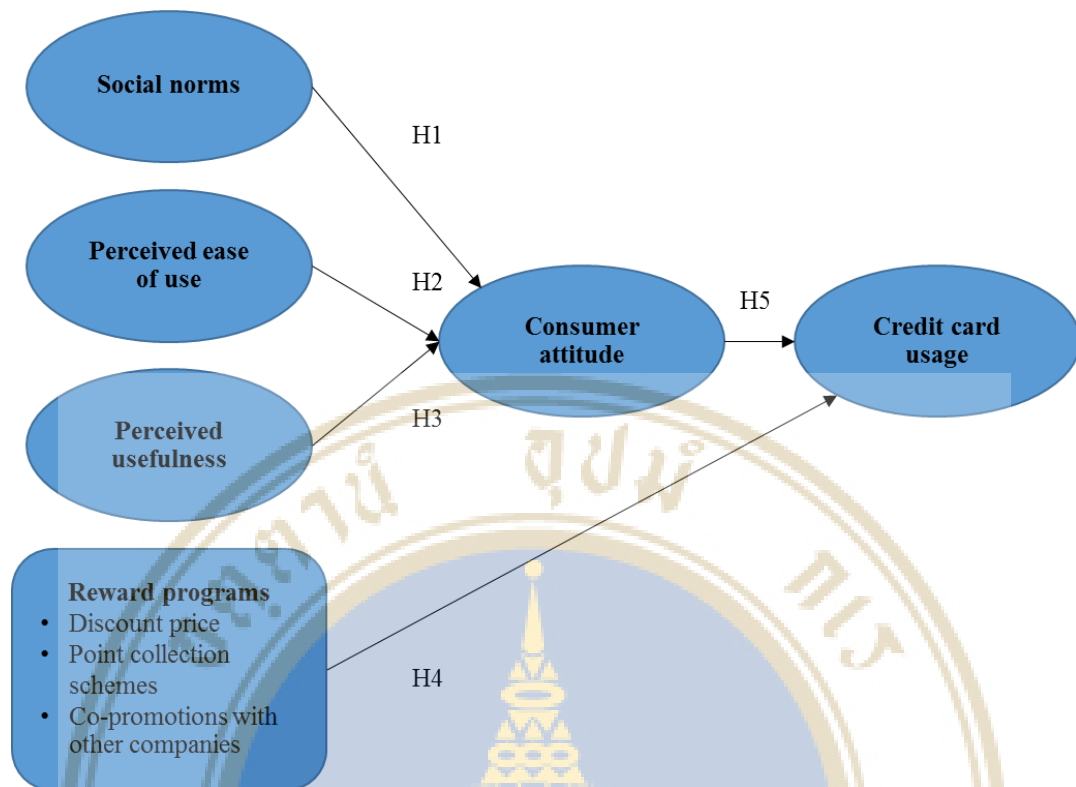


Figure 2.2 Conceptual framework of the modified TAM for credit card usage in Thailand

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Approach

This study will use a quantitative research approach. Quantitative research uses a standard data collection technique (such as a survey or experiment) and statistical analysis to discover knowledge about the research topic (Creswell, 2014). The quantitative approach is intended to provide information that can be generalized from a sample to a population, demonstrate the frequency something occurs within a sample or population, and identify relationships between variables (like causal relationships or differences between population groups) (Creswell, 2014). Quantitative research is also useful in business research projects because it provides answers that are not highly ambiguous or subject to a lot of researcher interpretation (Cooper & Schindler, 2013). Since the objectives of this research are to describe credit card adoption behaviors (frequency of a particular occurrence) and factors in credit card adoption (relationships between variables), the quantitative approach is the best approach for this project. There are two research designs that could be used, including an experiment and a survey. For this research, a survey will be used, since part of the goal is to describe actual behaviors and attitudes within the population. It would not be possible to design an experiment for this.

3.2 Sampling Procedure

The population of interest for this research will be Thai consumers who have credit cards. The most recent statistics from the Bank of Thailand indicate there are 15,436,479 credit card accounts in Thailand (Bank of Thailand, 2012). This means the population size is unknown, but large (over 1 million) (Macfie & Nufrio, 2006). A calculation for an unknown but large sample size is as follows: $SS = \frac{z^2 \times p \times (1-p)}{c^2}$, where z = the critical z-value corresponding to the desired confidence level, c = the confidence interval (margin of error), and p = the proportion of the Population that would select a particular answer (Godden, 2004). Using a 95% confidence level and +/-5% confidence interval, along with Godden's (2004) suggested default value of $p = 0.50$, the resulting equation is $SS = \frac{1.96^2 \times 0.50 \times 0.50}{0.05^2} = \frac{3.8416 \times 0.5 \times 0.5}{0.0025} = 384.16$. Based on this calculation, the target sample size for this research will be $SS = 385$.

The sample will be selected using convenience sampling. Convenience sampling selects a sample based on their availability and adjacency to the researcher (Cooper & Schindler, 2013). This is a non-random sampling technique and can be subject to bias. However, it is acceptable for exploratory research and situations where the population characteristics are not known (to allow for simple random sampling or quota sampling) (Zikmund, Babin, Carr, & Griffin, 2013). The researcher will select participants in major shopping areas of Bangkok for the research. Bangkok has been selected as the sampling site because the economy of Bangkok and the provinces in Thailand is very different, with historical differences in household composition, income, and expenditures as well as industry and employment (Lee, 1996). This could influence consumer attitudes toward credit cards as well as their ability to gain access to them. Constraining research to Bangkok will limit (though not eliminate) these differences in the sample selection.

3.3 Data Collection

Data will be collected using a self-administered questionnaire. A questionnaire is a research instrument that collects data in a standardized way, using a variety of open-ended and closed-ended item types (such as ordinal or nominal categories, Likert scale or semantic differential and open response items) (Cooper & Schindler, 2013). The questionnaire has a number of advantages, including that it simplifies data collection and preparation for analysis and that it is intuitively understood in most populations (since it is commonly used) (Zikmund, et al., 2012). The questionnaire will be distributed in two ways. An online questionnaire will be used, with announcements for the questionnaire being distributed across Bangkok-related communities. However, with limited Internet use in Thailand it would lead to respondent bias if only online collection was used. In-person distribution at a number of shopping centers around Bangkok will also be used to reach potential respondents that do not use the Internet. This will also reduce the amount of time needed to collect the sample. The researcher will construct the questionnaire based on the conceptual framework (in Chapter 2). Where possible, items will be adapted from previous studies that have examined similar topics to improve reliability and validity.

The questionnaire consists of three main sections (excluding screening question). The first section is general information which includes questions about gender, age and monthly income. The second section is factors influencing consumer intention to use credit card which uses 5 Point Likert Scale as a measurement. The third section is credit card usage. The researcher will construct the questionnaire based on the conceptual framework (in Chapter 2). Where possible, items will be adapted from previous studies (see table 3.1) that have examined similar topics to improve reliability and validity.

Table 3.1 Research Variables, Questionnaire Items and Sources

Variable	Questionnaire Items	Sources
Credit card usage	3.5.1 When I do my shopping I would prefer to use credit card 3.5.2 My intention to use credit card as a payment method is high.	Kripanont (2007)
Perceived usefulness	2.1 Using credit card enhances my shopping effectiveness. 2.2 Credit card is a useful payment method.	Çelik & Yılmaz (2011)
Perceived ease of use	2.3 Credit card is easy to use. 2.4 I do not have any problems of using credit card.	Cowen (2009)
Social norms	2.5 Most people surrounding with me use credit card. 2.6 Credit card is a trend that most people has it. 2.7 It is entirely up to me whether I want to use credit card or not (-)	Yu (2012)
Consumer attitude	2.8 I have a generally favorable attitude toward using credit card. 2.9 My overall attitude toward credit card is positive.	Masrom (2007)
Credit card reward programs	2.10 I use credit card when shopping because I can some discount. 2.11 I always look at the promotions that I would be get from redeeming my credit card points. 2.12 When I make a payment, I normally ask whether there is co-branding promotions between product brand and credit card.	N/A

3.4 Data Analysis

Data analysis will take place in SPSS. It will begin with descriptive statistics for each variable. Descriptive statistics are used to describe characteristics of the sample and single variables, but they do not explain relationships or generalize to the population (Carver & Nash, 2012). Descriptive statistics will be used to explain the sample's adoption of credit cards and the relative strength of various factors. The results of average value for each questionnaire items (using 5-point Likert scale) will be interpreted based on a formula that redistributed the width of each level (since the lowest possible score was 1). The calculation $\frac{High\ score - Low\ score}{5} = \frac{5-1}{5} = 0.8$ was used to determine the width of the levels. The following interpretations were then assigned:

- 1.00 to 1.79 = Very low agreement
- 1.80 to 2.59 = Low agreement
- 2.60 to 3.39 = Moderate agreement
- 3.40 to 4.19 = High agreement
- 4.20 to 5.00 = Very high agreement

The second analysis process will be factor analysis. Factor analysis is a statistical approach designed to identify factors, or latent variables that underlie observed variables (Harrington, 2008). It results in factor loading. In this research, values of under 0.6 will be eliminated. The third analysis process will be inferential analysis. Inferential statistics let the researcher infer about a population from the sample (Carver & Nash, 2012). For example, inferential statistics can describe relationships and generalize. The inferential statistics will be used to test the hypotheses of the study (Chapter 2). The hypotheses will be tested using single and multiple regression analysis. Regression analysis is used to describe a relationship between two variables, such as how much variance in one variable is related to variance in the other (Carver & Nash, 2012). Regression usually models one variable (the outcome variable) in terms of one or more other variables that affect it (predictor variables) (Carver & Nash, 2012). This research will use single regression (using one predictor variable) and multiple regression (using two or more predictor variables).

CHAPTER IV

RESULTS AND DISCUSSION

4.1 Respondent Profiles

Table 4.1 shows the demographic information collected about the respondents in the sample (n = 284). The sample is predominantly female (57%). They are relatively young that aged 30 and under (60.2%), following by respondents aged between 31 and 40 years (24.6%), 41 and 50 years (9.2%) and 51 and 60 years (6%). The respondents in this research has moderate to high income (74.3% of respondents with income between 15,000 and 50,000 baht/month). However, 21.5% of respondents had high or very high incomes (over 50,000 baht/month). The minority of respondents earn less than 15,000 baht/month (4.2%). This can be described as a relatively affluent sample for Thailand.

Table 4.1 General information

Gender	Frequency (n=284)	Percentage
Male	122	43.0
Female	162	57.0
Age		
Less than 25 years	29	10.2
25 to 30 years	142	50.0
31 to 40 years	70	24.6
41 to 50 years	26	9.2
51 to 60 years	17	6.0
Monthly income (before tax)		
Less than 15,000 baht	12	4.2
15,001 to 30,000 baht	88	31.0
30,001 to 50,000 baht	123	43.3

Table 4.1 General information (cont.)

50,001 to 80,000 baht	34	12.0
More than 80,000 baht	27	9.5

4.2 Reliability Testing Result

The items on the instrument were assessed using Cronbach's alpha in order to make sure they had a high level of reliability. The Cronbach's alpha coefficient can generally be accepted if the results are above 0.6 (Cooper & Schindler, 2013). The results for the multi-item scales in this study are shown in Table 5. These results show that all of the scales are above the acceptable limit. The lowest score is Perceived usefulness (alpha = 0.660) while the highest score is Credit card usage (alpha = 0.885). All scales can be considered reliable.

Table 4.2 Cronbach's alpha scores

Variable	Cronbach's Alpha
Credit card usage	.885
Perceived usefulness	.660
Perceived ease of use	.789
Social norms	.716
Consumer attitude	.737
Credit card reward programs	.785

4.3 Correlation Analysis

Table 4.3 shows the correlation between research variables (PU, PeoU, Social norms, Attitude, Reward programs and Credit card usage). The result indicates there are a strong relationship between variables as most of them has a significant correlation at the 0.01 level. The strongest correlation is the relationship between PU and Social norms ($r=.735$), following by PU and Credit card usage ($r=.665$) and PU

and Attitude ($r=.638$). However, there is only reward programs and attitude that has no significant correlation (P Value=.092).

Table 4.3 Correlation Analysis

		PU	PeoU	Social Norms	Attitude	Reward	Credit card usage
PU	Pearson Correlation	1	.600**	.735**	.638**	.465**	.665**
	Sig. (2-tailed)		.000	.000	.000	.010	.000
	N	30	30	30	30	30	30
PeoU	Pearson Correlation	.600**	1	.615**	.380*	.463*	.520**
	Sig. (2-tailed)	.000		.000	.038	.010	.003
	N	30	30	30	30	30	30
Social Norms	Pearson Correlation	.735**	.615**	1	.450*	.518**	.608**
	Sig. (2-tailed)	.000	.000		.013	.003	.000
	N	30	30	30	30	30	30
Attitude	Pearson Correlation	.638**	.380*	.450*	1	.314	.511**
	Sig. (2-tailed)	.000	.038	.013		.092	.004
	N	30	30	30	30	30	30
Reward	Pearson Correlation	.465**	.463*	.518**	.314	1	.557**
	Sig. (2-tailed)	.010	.010	.003	.092		.001
	N	30	30	30	30	30	30
Credit card usage	Pearson Correlation	.665**	.520**	.608**	.511**	.557**	1
	Sig. (2-tailed)	.000	.003	.000	.004	.001	
	N	30	30	30	30	30	30
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

4.4 Descriptive Statistics

4.4.1 Factors influencing consumer intention to use credit cards

The first main set of items in the questionnaire addressed factors that influenced consumer intentions to use credit cards. There were five general factors of credit card use that were addressed, including perceived usefulness, perceived ease of use, social norms, attitudes, and credit card reward programs. Each of these factors was represented by two or more items, which were averaged into a single scale index score for use in the hypothesis testing below. However, the general trends provided by descriptive statistics are also of interest here.

Table 4.4 shows the descriptive results from the factors in credit card use. This showed that the lowest ranked factor was Attitude ($M = 3.48$, $SD = 0.885$), followed by Reward Programs ($M = 3.65$, $SD = 0.921$), Perceived Usefulness ($M = 3.77$, $SD = 0.736$), Social Norms ($M = 3.81$, $SD = 0.646$) and Perceived Ease of Use ($M = 3.87$, $SD = 0.662$). These results suggest that in general the assessment of attitudes was relatively low, but that credit cards were perceived as being useful, socially accepted, and easy to use. All of the responses were relatively close and none of the individual items stand out as being highly divergent compared to others. (The item “It is entirely up to me whether I want to use a credit card or not” is a reverse-scored item, and thus its averaged score is 2.98). These results generally suggest that credit cards are somewhat, but not entirely, positively regarded by the participants in the study.

Table 4.4 Descriptive results of perceived usefulness, perceived ease of use, social norms, attitude and reward programs

Questions	Mean	Std. Deviation	Mean interpretation
Using credit card enhances my shopping effectiveness.	3.72	.92668	Agree
Credit card is a useful payment method.	3.82	.85417	Agree
Perceived Usefulness	3.77	.73562	Agree
Credit card is easy to use.	4.08	.68804	Agree
I do not have any problems of using credit card.	3.65	.93647	Agree
Perceived Ease of Use	3.87	.66242	Agree
Most people surrounding with me use credit card.	3.88	.91306	Agree
Credit card is a trend that most people has it.	3.57	.92749	Agree
It is entirely up to me whether I want to use credit card or not (-)	2.02	.85075	Disagree
Social Norms	3.81	.64621	Agree
I have a generally favourable attitude toward using credit card.	3.43	.96117	Agree
My overall attitude toward credit card is positive.	3.53	.96349	Agree
Attitude	3.48	.88544	Agree
I use credit card when shopping because I can some discount.	3.74	1.03684	Agree
I always look at the promotions that I would be get from redeeming my credit card points.	3.64	1.07506	Agree
When I make a payment, I normally ask whether there is co-branding promotions between product brand and credit card.	3.56	1.12156	Agree
Reward Programs	3.65	.92137	Agree

4.4.2 Credit card usage

The third set of items addressed how the respondents in the sample actually used credit cards. Items included the number of credit cards owned, monthly payments to credit cards, issuing bank, and frequency of use. The final item assesses the total attitude to credit cards.

Figure 4.1 shows the total number of credit cards owned. This shows that most respondents own 2 to 3 cards (46%). This is more than the average number of cards owned in Thailand, but this is probably because of the relatively high income of the sample.

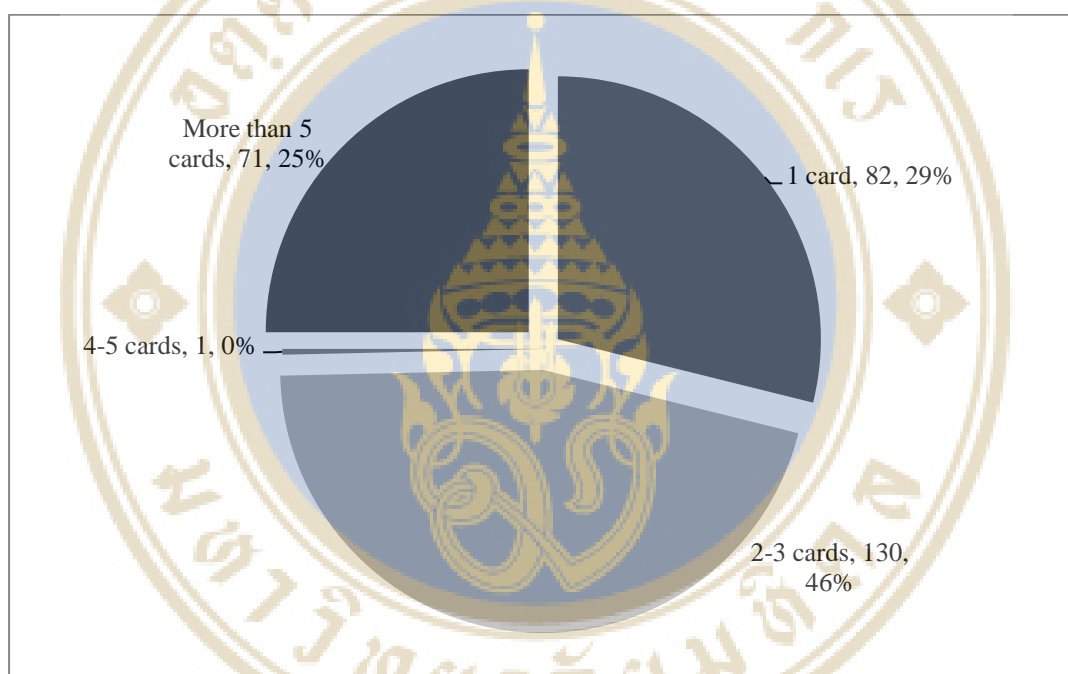


Figure 3.1 Number of credit cards owned

Figure 4.2 shows the monthly amount spent on credit cards on average. Most participants (44%) spend less than 10,000 baht on credit cards per month, though relatively large groups spend 10,000 to 30,000 baht (26%) or 30,000 to 50,000 baht (19%). This suggests relative spending on credit cards is generally only a portion of income.

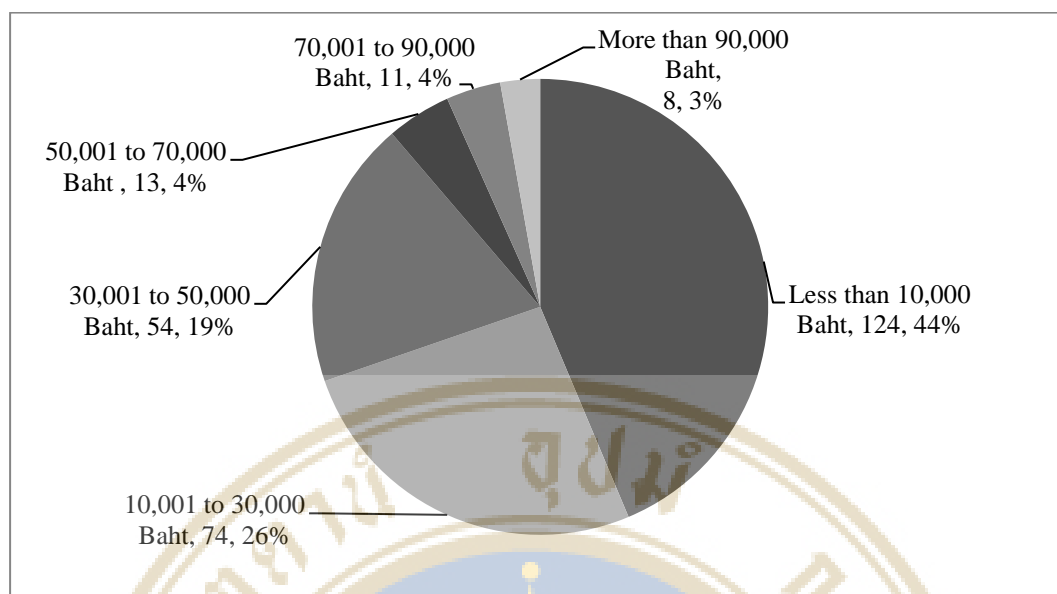


Figure 4.2 Monthly payment by credit card

Figure 4.3 shows the issuing bank of credit cards. Respondents could mention more than one bank for this choice. They mentioned an average of 2.38 banks each. The most common bank was Kasikorn Bank (45.4% of the sample) followed by KTC (37% of the sample) and Siam Commercial Bank (32.4% of the sample).

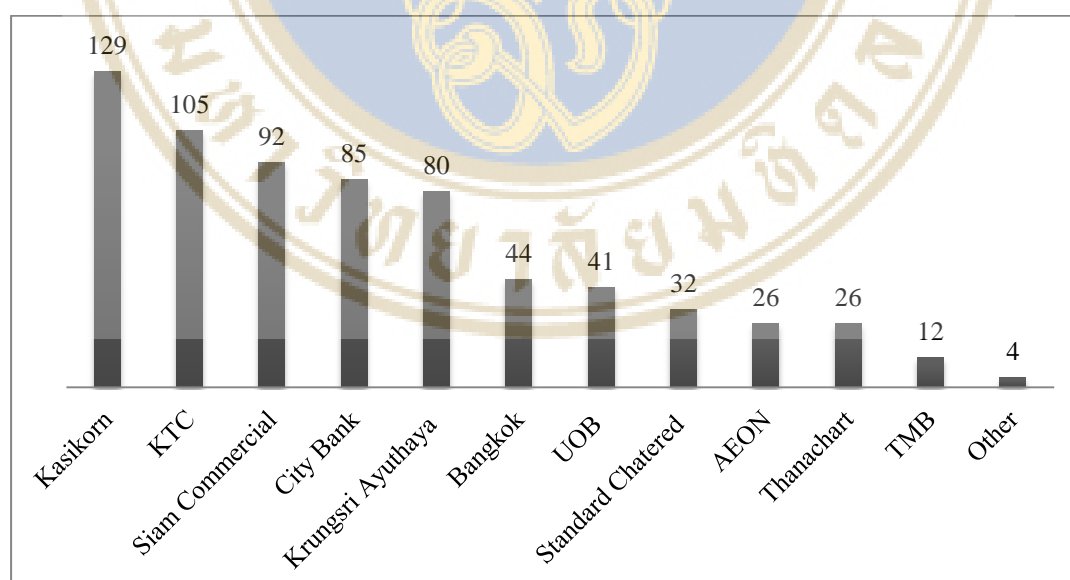


Figure 4.3 Issuing bank of credit card owned

Figure 4.4 shows the frequency of using credit cards. This shows that most respondents use credit cards often (41%) or always (40%). Thus, Thai people that have credit cards are using them routinely.

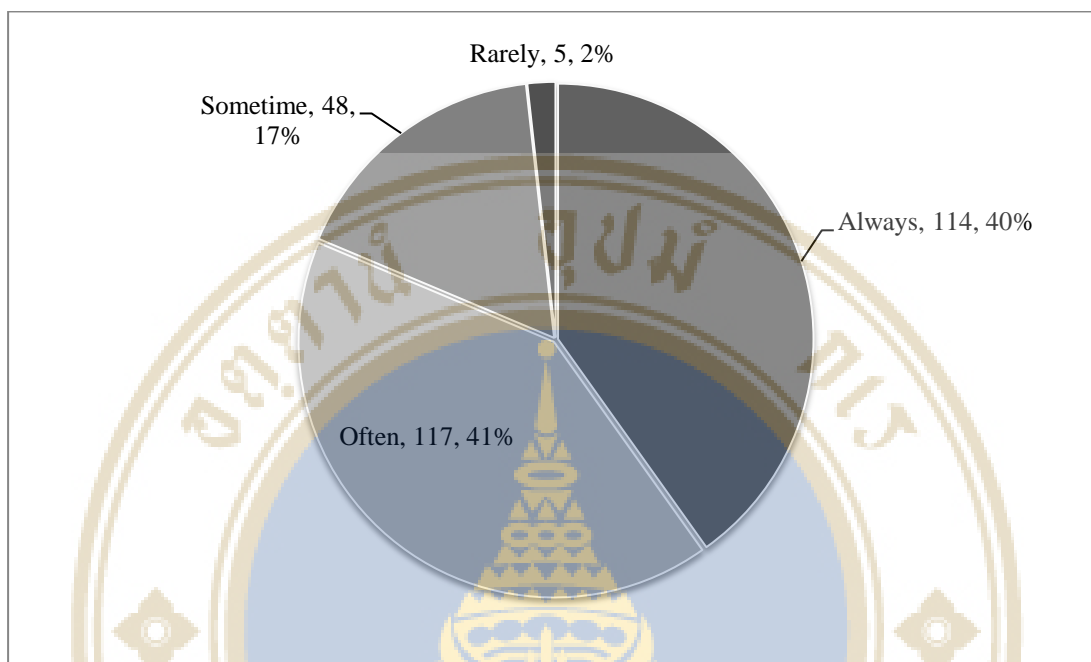


Figure 4.4 Frequency of using credit card

The final question was about use and preference for credit cards, shown in Table 4.5. The average agreement with credit card usage ($M = 3.50$, $SD = 0.925$) shows that consumers generally agree with the use of credit cards, though they may not always support it.

Table 4.5 Credit card usage

Questions	Mean	Std. Deviation	Mean interpretation
When I do my shopping I would prefer to use credit card	3.53	1.01354	Agree
My intention to use credit card as a payment method is high.	3.46	1.00629	Agree
Credit Card Usage	3.50	.92472	Agree

4.5 Multiple Linear Regression

There were five hypotheses proposed. H1, H2, and H3 were tested together using multiple regression testing. H4 was tested on its own with multiple regression, and H5 was tested on its own with single regression.

4.5.1 Hypotheses 1, 2, and 3

Hypotheses 1, 2, and 3 proposed the following, based on the TAM:

H1: Social norms positively influence consumer attitudes towards credit cards.

H2: Perceived ease of use positively influences consumer attitudes towards credit cards.

H3: Perceived usefulness positively influences consumer attitudes towards credit cards.

These hypotheses were tested using multiple regression testing. The model summary in Table 4.6 shows that the goodness of fit of these factors was only moderate. The outcome ($\text{adj. } r^2 = 0.287$) indicates that 28.7% of variance in Attitude is influenced by Social Norms, Perceived Ease of Use and Perceived Usefulness. The ANOVA result in Table 4.7 ($F = 38.904$, $p = 0.000$) indicates that this is a significant result. The coefficients (Table 4.8) are used to determine which of the predictor variables is significant and the contribution to the outcome variable. This shows that Perceived Usefulness ($t = 5.745$, $p = 0.000$) and Perceived Ease of Use ($t = 3.727$, $p = 0.000$) are significant, but Social Norms ($t = 1.352$, $p = 0.177$) is not. The regression equations derived from these variables are:

Unstandardized equation:

$$Y = 0.419X_{1(\text{PU})} + 0.298X_{2(\text{PEOU})} + 0.328$$

Standardized equation:

$$Z = 0.348X_{1(\text{PU})} + 0.223X_{2(\text{PEOU})}$$

This shows that Perceived Usefulness and Perceived Ease of Use contribute to Attitudes toward credit cards, but that Social Norms does not. The influence of Perceived Usefulness is stronger than the influence of Perceived Ease of Use. Based on these results, Hypothesis 1 is **rejected** and Hypotheses 2 and 3 are **accepted**.

Table 4.6 Model Summary – H1 to H3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542 ^a	.294	.287	.74785

a. Predictors: (Constant), Social Norms, Perceived Ease of Use, Perceived Usefulness

Table 4.7 ANOVA^b – H1 to H3

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65.275	3	21.758	38.904	.000 ^a
	Residual	156.598	280	.559		
	Total	221.873	283			

a. Predictors: (Constant), Social Norms, Perceived Ease of Use, Perceived Usefulness
b. Dependent Variable: Attitude

Table 4.8 Coefficients^a – H1 to H3

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.328	.317		1.034	.302
	Perceived Usefulness	.419	.073	.348	5.745	.000
	Perceived Ease of Use	.298	.080	.223	3.727	.000
	Social Norms	.110	.082	.080	1.352	.177

a. Dependent Variable: Attitude

4.5.2 Hypothesis 4

Hypothesis 4 stated that:

H4: Credit card reward programs (discount price, point collection schemes and co-promotions with other companies) positively influence consumer to use credit cards.

Tables 4.9, 4.10, and 4.11 show the results of this multiple regression. The goodness of fit test in Table 4.9 (adj. $r^2 = 0.135$) shows that only 13.5% of variance in Credit Card Usage can be attributed to Cobranding, Discount or Promotion. However, the ANOVA results in Table 4.10 ($F = 15.733$, $p = 0.000$) do confirm that this is a significant result. The coefficients in Table 4.11 show the individual contributions of the coefficients. This shows that Discounts ($t = 2.615$, $p = 0.009$) and Promotion ($t = 2.213$, $p = 0.035$) are significant. However, Cobranding ($t = 1.229$, $p = 0.220$) is not a significant factor. The regression equations derived from this test are:

Unstandardized equation:

$$Y = 0.166X_{1(\text{Discount})} + 0.141X_{2(\text{Promotion})} + 2.090$$

Standardized equation:

$$Z = 0.186X_{1(\text{Discount})} + 0.164X_{2(\text{Promotion})}$$

Based on this, Hypothesis 4 is **accepted**. While Discounts and Promotions influenced consumer decisions to use credit cards, Cobranding did not. However, the influence of Discounts and Promotions was also very weak and may not be important in terms of practical impact (even though it is statistically significant).

Table 4.9 Model Summary – H4

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.380 ^a	.144	.135	.86000
a. Predictors: (Constant), Cobranding1, Discount1, Promotion1				

Table 4.10 ANOVA^b – H4

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.909	3	11.636	15.733	.000 ^a
	Residual	207.087	280	.740		
	Total	241.996	283			
a. Predictors: (Constant), Cobranding, Discount, Promotion						
b. Dependent Variable: Credit Card Usage						

Table 4.11 Coefficients^a – H4

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.090	.211		9.888	.000
	Discount	.166	.063	.186	2.615	.009
	Promotion	.141	.066	.164	2.123	.035
	Cobranding	.077	.063	.093	1.229	.220
a. Dependent Variable: Credit Card Usage						

4.5.3 Hypothesis 5

The last hypothesis stated:

H5: Consumer attitude toward credit card positively influences consumer to use credit cards.

This hypothesis was based on the final stage of the TAM, where attitudes influence the final decision to use the technology. This was tested using single regression. Tables 11, 12, and 13 show the results of this regression. The model fit for this test (adj. $r^2 = 0.290$) indicates a moderate fit, with 29% of variance in Credit Card Usage being explained by Attitude. The ANOVA test outcome ($F = 116.348$, $p = 0.000$) shows that this test is significant. The coefficient test for Attitude ($t = 10.786$, $p = 0.000$) does confirm that Attitude contributes to Credit Card Usage. The regression equations for this relationship are:

Unstandardized equation:

$$Y = 0.564X_{1(\text{Attitude})} + 1.533$$

Standardized equation:

$$Z = 0.540X_{1(\text{Attitude})}$$

Based on this test, Hypothesis 5 is **accepted**. Attitudes toward credit card use do predict Credit Card Use. Together with the findings of Hypotheses 1 through 3 above, these findings do validate the use of the TAM, though the influence of social norms is not accepted as a factor in the relationship.

Table 4.12 Model Summary – H5

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.540 ^a	.292	.290	.77942

a. Predictors: (Constant), Attitude

Table 4.13 ANOVA^b – H5

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.681	1	70.681	116.348	.000 ^a
	Residual	171.315	282	.608		
	Total	241.996	283			

a. Predictors: (Constant), Attitude
b. Dependent Variable: Credit Card Usage

Table 4.14 Coefficients^a – H5

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.533	.188		8.162	.000
	Attitude	.564	.052	.540	10.786	.000

a. Dependent Variable: Credit Card Usage

4.6 Final Model

The final model of this study is presented in Figure 4.5. It is showed that perceived usefulness and perceived ease of use were significantly influenced consumer attitude. This can be explained that most of Thai consumers are familiar with credit card. They perceive that it is a useful payment method and also easy to use. The final model also indicated that reward programs, including Discount and Promotions were positively influenced consumer credit card usage. This is clearly seen that Thai consumer can be motivated to use credit card by discount and promotions provided by credit card companies.

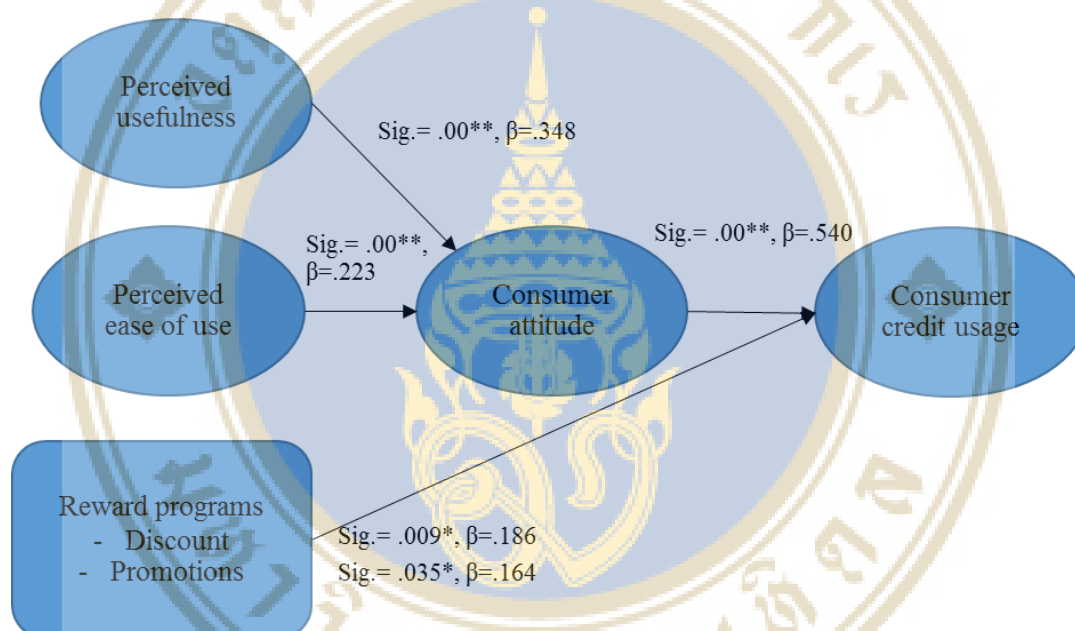


Figure 4.5: The Final Model

4.7 Discussion

The findings showed that attitudes toward credit cards were only moderate, even though all the participants were already using credit cards. The hypothesis testing showed that Perceived Usefulness and Perceived Ease of Use were factors in Attitude toward credit cards, but Social Norms were not. Some aspects of credit card loyalty programs (including Promotions and Discounts, but not Cobranding) influenced consumer intentions to use credit cards, as did Attitude.

However, these findings were relatively weak. In general, consumers appeared to use credit cards because they were useful, easy to use, and because they enjoyed parts of the reward programs offered, but not because of social norms that either positively or negatively influenced their use.

The main finding in this research is that the TAM model (Figure 2.1) as proposed by Davis (1986) did generally model the consumer's decision. Perceived Usefulness was stronger than Perceived Ease of Use (though not much) in influencing Attitudes. This is because credit card is a technology that has been using for a while in Thailand and most Thai consumers do understand how to use it. Also, Thai consumers may perceive that using credit card is convenience and safe as they do not need to carry cash. The fact that credit card offers safety in life to the consumers is at great importance. Living in a big and competitive city like Bangkok where competition is high and unemployment rate is increasing due to political instability, there are news about robbery and theft almost every day. A number of people are struggling, trying to survive their life on a daily basis. Either getting robbed or losing money is what they cannot afford. Both private and government sectors also occasionally warn people not to carry a lot of cash for their own safety. Giving such a significant benefit of credit in protecting life, it does not surprise that the respondents attach more importance to Perceived Usefulness than Perceived Ease of Use regarding credit card usage. This is consistent with the findings of previous studies, which have generally found Perceived Usefulness to be stronger and more consistent than Perceived Ease of Use (Chutter, 2009). It is easy to understand why Perceived Ease of Use may play a stronger role in the choice of credit card use compared to other technologies, even though it is more unpredictable than Perceived Usefulness generally (King & He, 2006). For example, if few merchants took credit cards or they were difficult to use, consumers could easily use other payment methods like cash. Thus, the fact that credit cards are very easy to use is an important factor in their choice of use. The relationship between the main predictor variables and Attitude is also consistent with the TAM, as is the relationship between Attitude and Behavioral Intention (for credit card use) (Chutter, 2009). These findings are generally consistent with the findings of other studies that have used the TAM (King & He, 2006).

The outcome of including external factors in the TAM in order to explain credit card use was less certain. Other studies have shown that this is essential to make sure that the model reflects the context of the study (Schepers & Wetzels, 2007; Venkatesh & Bala, 2008). These studies have previously demonstrated that external factors will influence the adoption of technology and the TAM works best when external, contextual variables are included (Chutter, 2009; Schepers & Wetzels, 2007). This is the reason for testing Social Norms and Loyalty Program variables in the study. Social norms were supported as a contributing factor in a number of studies (Abdul-Muhmin & Umar, 2007; Khare, Khare, & Singh, 2012). However, these studies were conducted in areas where the carrying of debt is highly charged as a moral dimension or where owning a credit card is a sign of considerable social status. Thus, it was accepted that this might not be the case in Thailand. This study did show that it was not, with Social Norms being a neutral and statistically insignificant factor in Attitudes. Some aspects of the loyalty program, such as discounts and promotions, were supported (though cobranding was not). This is because discounts and promotions are the rewards programs that directly associated with money (meaning customer will get the price discount right away) which is opposite with nonmonetary reward programs like cobranding. Studies had previously shown that loyalty programs were a major factor in the acceptance of credit cards and their use (Carbó-Valverde & Liñares-Zegarra, 2011; Wirtz, Mattila, & Lwin, 2007). However, the findings of this study could have as easily gone the other way. For example, other studies have shown that some consumers are not aware of credit card loyalty programs and their benefits, and as a result do not use them (Liu & Brock, 2009). Thus, it was possible that this study could have found the opposite – that Thai consumers do not use credit card programs because of loyalty programs.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This research studied the credit card use habits and factors in adoption by Thai consumers. This was an interesting topic because credit card usage in Thailand is growing rapidly, even though it is still relatively unusual and most people do not have multiple credit cards. There were two research objectives that were established for the study. These included studying profiles of Thai credit cardholders and investigating factors that influenced Thai consumers to use credit cards.

The study used a conceptual model based on the technology acceptance model (TAM), which was proposed by Davis (1986) as a way of explaining the adoption of technologies. This model suggests that perceived usefulness and perceived ease of use, along with external factors, influence attitudes toward a technology, which then influences intentions to use the technology and actual use. There were also other factors identified in the literature on credit card use, including social norms and credit card loyalty programs. A questionnaire was prepared based on the TAM and was distributed to a sample of Thai consumers that have credit cards (n = 284).

One of the goals of the questionnaire was to provide a profile of Thai credit cardholders. This was performed using descriptive research. The cardholders in the sample were disproportionately female and mainly young (30 and under), and had moderate to high incomes. They generally had two to three credit cards each, with the majority coming from Kasikorn Bank, KTC and Siam Commercial Bank. They reported paying with credit cards often or always, though most spend under 10,000 baht a month on their cards. Thus, a general statement about the participants is that they used credit cards routinely, but did not have a significant amount of spending on them each month. In general, participants reported positive (but not highly positive) attitudes toward credit cards.

The second goal of the questionnaire was to examine the factors influencing Thai consumers to use credit cards. This was the task of the hypothesis testing. There were five hypotheses proposed. Hypotheses 1, 2, and 3 proposed that Social Norms, Perceived Usefulness, and Perceived Ease of Use would influence Attitudes toward credit cards. Hypothesis 4 stated that credit card loyalty program aspects (including promotions, discounts and cobranding) would influence use, while Hypothesis 5 stated that attitudes would influence use. Outcomes of the hypothesis test showed that social norms (H1) was not influenced attitude while perceived usefulness (H2) and perceived ease of use (H3) significantly influenced attitudes. It also showed that promotions and discounts (H4) influenced consumer use of credit cards, but co-branding did not. Finally, attitudes toward credit card use (H5) had a moderate effect on credit card use. These findings generally supported the TAM as well as one of the external variables (loyalty programs), but did not show a strong influence from social norms.

5.2 Research Implications

There are some research implications in this study for firms issuing credit cards in Thailand. One of these implications is that while attitudes are positive, they are not strongly positive. There does not appear to be a strong negative attitude toward credit cards, as have been found in some cultures like Saudi Arabia (Abdul-Muhmin & Umar, 2007), but Thailand also does not appear to have a strong connection between credit cards and social status like India (Khare, Khare, & Singh, 2012). This means that credit card issuers or managers in Thailand will need to develop a position for the credit card in Thai society in order to become stronger in the long term. The evidence from this study suggests that consumers are mainly using credit cards for convenience, rather than for other reasons (such as believing it is a better way to pay for things). Thus, credit card companies could also benefit from making it as convenient as possible to pay for goods and services using credit cards. Thus, there are at least two ways that companies could improve the penetration of credit cards into Thailand and increase the number of consumers using them. Moreover, the result found that PU is

more important than PEOU in Thai context in terms of influencing consumer attitude toward credit card. Therefore, credit card company should find the way to make consumers feel that using credit card is beneficial and useful, for example make their shopping activities easier and increase their safety. Manager or company could set a campaign to promote how useful credit cards could be. This can help increase awareness of non-credit card owners. The campaign should mention various benefits that credit card owners will earn. In order to make this clear and more attractive, manager or company can do this by comparing between credit card owners and non-credit card owners as showed in table 5.1. This campaign can be advertised via the company website or social media, which is less expensive.

Table 5.1 Benefits of having credit cards

Benefits	Credit card owners	Non-credit card owners
Safe from carrying cash	x	
Point redemption	x	

Another recommendation for credit card companies is to focus more on money reward programs such as discount and promotions rather than nonmonetary programs as the result indicated that these marketing techniques (monetary reward program) can significantly influence credit card usage. The manager or company should do some researches to identify which monetary rewards have been offering in the market at the moment. By knowing this, manager or company can set up new monetary rewards that either innovate or offering more monetary values than any existing credit card in the market. The manager or company can promote this new card offering together with promoting benefits of credit cards in order to save cost and time. The campaign should emphasize on what kind of monetary benefits that the new credit card owners will get compared to the other credit card offered in the market. To ensure the effectiveness of campaign launch by the company, all campaigns should be systematically evaluated with clear timeline and accountability.

5.3 Recommendations for Future Research

One of the most significant research gaps that became apparent during this study is that there is relatively little research into how and why consumers use credit cards in different societies. Only a small number of studies could be found that examined the use of credit cards, which was not enough to fully determine a set of factors associated with credit card use. As a result, the reasons why consumers begin to use credit cards, and why they use credit cards instead of other payment methods, is not fully explained in the literature. This study has provided some information about a new market (Thailand), but there is still relatively little information about this topic. Thus, the first recommendation for future research is to study the use of credit cards and adoption reasons for them.

A second gap in the research is that knowledge about the adoption of financial innovations is almost entirely focused on Internet banking. This caused a problem because this is a different type of financial innovation than credit cards (which are common in Western economies but not in many developing economies). The research into financial innovation adoption by consumers therefore does have some room for expansion, particularly in the adoption of different kinds of innovation like credit cards. This could provide more information about how different financial innovations become established in different societies or why they are rejected or limited to a certain segment of the population.

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Appendix A: Questionnaire



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1 August 2014

Dear sir/madam

My name is Junlawut Knokham, graduated student (International Program) at Mahidol University. I am undertaking a research project to examine factors motivating to own a credit card and its frequency of use in Thailand.

The information gather from this questionnaire will be used for academic purpose only. To this end we kindly request that you complete the following short questionnaire regarding your experience with social media. It should take no longer than 10 minutes of your time. Your response is of the utmost importance to us.

Please do not enter your name or contact details on the questionnaire. It remains anonymous.

Should you have any queries or comments regarding this survey, you are welcome to contact us by telephone at 086-0605089 or e-mail us at junlawut@gmail.com

Yours sincerely,

Junlawut Knokham

Questionnaire

Screening Question

S1. Do you own credit card?

Yes (Please continue)

No (Please end this survey)

Part 1: General information

1.1 Gender

Male

Female

1.2 Age

Less than 25 years

25 to 30 years

31 to 40 years

41 to 50 years

51 to 60 years

More than 60 years

1.3 Monthly income (before tax)

Less than 15,000 baht

15,001 to 30,000 baht

30,001 to 50,000 baht

50,001 to 80,000

More than 80,000 baht

Part 2: Factors influencing consumer intention to use credit card

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
2.1 Using credit card enhances my shopping effectiveness.					
2.2 Credit card is a useful payment method.					
2.3 Credit card is easy to use.					
2.4 I do not have any problems of using credit card.					
2.5 Most people surrounding with me use credit card.					
2.6 Credit card is a trend that most people has it.					
2.7 It is entirely up to me whether I want to use credit card or not (-)					
2.8 I have a generally favourable attitude toward using credit card.					

2.9 My overall attitude toward credit card is positive.					
2.10 I use credit card when shopping because I can some discount.					
2.11 I always look at the promotions that I would be get from redeeming my credit card points.					
2.12 When I make a payment, I normally ask whether there is co-branding promotions between product brand and credit card.					

Part 3: Credit card usage

3.1 How many credit cards do you own?

1 2-3 4-5 more than 5

3.2 How much do you use credit card a month?

Less than 10,000 Baht 10,001 to 30,000 Baht
 30,001 to 50,000 Baht 50,001 to 70,000 Baht
 70,001 to 90,000 Baht More than 90,000 Baht

3.3 Which bank of credit card do you own? (Select that all apply)

Bangkok Kasikorn KTC
 AEON UOB Krungsri Ayuthaya
 Citi Bank Standard Chatered Thanachart
 Siam Commercial TMB Other _____

