

MINISTRY OF EDUCATION AND TRAINING

Da Nang University of Economics

FACTORS AFFECTING THE INTENT AND DECIDES TO USE BANK CARD:

RESEARCH AND PRACTICE IN VIETNAM

Major in business administration

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CHAPTER 1

ABOUT TOPICS

In the trend of globalization and financial liberalization, the strong development of technologies with sustainable development policies of the government have created a solid foundation for the modernization of the payment system. Market size ecommerce Vietnam than \$ 3 billion, but new electronic payment accounts for 5% of the value of goods and services procurement. Electronic Payment Forum

Vietnam 2015 (VEPF 2015) with the message "connect and collaborate to promote electronic payments"

Electronic payments at the point of sale POS installed number has increased rapidly, is expected to reach the goal of 250,000 by the end of 2015 POS (Thang, 2015)

- Resolution 36a-CP / 2015 on the implementation of e-government

- Resolution No. 19 / NQ-CP dated 03/12/2015 on "the main task of the solution continues to improve the business environment, enhance national competitiveness two years from 2015 to 2016"

According to the Nielsen Vietnam middle class in Vietnam will grow nearly 3 times higher from 13 million to 33 million people by 2020, the highest growth rate in Southeast sweltering consumer A.Nguoi ages 25 - 34 years. 92 million people in more than 40 million internet users (UK, 2015).

Particularly in Visa e-commerce transactions using Visa products to reach annual growth of up to 44%. This is considered one of the highest growth figure region. Market penetration of e-commerce in Vietnam reached 18%, the highest position compared with competitors in the region (Preston, 3015)

A recent study was discovered by Moody's Economics showed that the rise of online payments has contributed 983 million dollars to the global economy (2008-2012) contributed 0.8% to growth GDP in emerging markets and 0.3% in developed markets (Preston, 3015).

Currently more than 20% of Vietnam's population has a bank account, the ratio is expected to be about 35-40% in 2015 (Fu, 2015)

With the development of information technology, banking sectors are also very big change. Since traditional banks have developed into electronic banking and from which the name of the bank also differ are: e-Banking, mobile banking, home banking, internet banking. Bank management in the technology era is administrator of electronic services, administration of bank card services.

In 2003, the number of cards issued is 234,000 cards (including domestic cards and international cards. At this time, the growth rate is 300%. According to the State Bank, who use bank cards goods vehicles compared with non-cash payments other tends to increase. may 3/2013, there are 46 commercial banks have ATMs and POS equipment (card payment machines), over 14,300 ATMs and more than 104,400 POS . Until now, basically completed more than 76,000 POS connects with over 720 branches of commercial banks; 20,600 POS units were linked together, mainly restaurants, hotels, supermarkets, agents airline tickets, travel companies ... the number and value of payments through POS increasing. Besides, awareness of card payments through POS has been a positive change of both cardholders and merchants payee.

Electronic payments at the point of sale POS installed number has increased rapidly, is expected to reach the goal of 250,000 by the end of 2015 POS (Thang, 2015)

Non-cash payments is a civilized form of payment in a modern society. Along with the development of the world about the banking sector, the Governor of the State Bank of Vietnam issued the non-use of cash in payments on 21.01.1994 by Decision No. 22 / NH.

Non-cash payments and card payments have important roles is beneficial for the development of the banking business, customers and the economy of a country.

Cards have great benefits as follows:

Payment via card enabling goods and services are secure, accurate, reliable and time-saving, cost. Since then people have confidence in the banking system and increased use of services booked. The fast and convenient, the efficiency of the card payments will facilitate attracting idle money deposited into your bank account, credit capability increases thereby boosting production and business. So speed up cash flow and speed up freight movement. The increase in the proportion of the payment does not use cash proportional to the opening of customer accounts, state control over the activities of law violations such as money laundering, tax evasion ... implementation of social justice. Using payment cards to prevent the circulation of counterfeit money, reduce the rate of cash flow it generates thong. Va above all to facilitate integration with the world.

The fact of the world have demonstrated the use of the card has brought considerable benefits but in Vietnam is not. That is why the author has chosen the theme:

"The factors that affect the mind and decided to use a bank card: practical research in Vietnam" to help banking executives especially bankcard administrator find the cause of why customers unused cards that much through marketing more effective way in promoting customers use the card.

With the topic, essay review to assess and analyze the work of the authors have been at home and abroad have closely related to the thesis, with the aim of:

- Identify the author selected topic is appropriate and does not overlap with previous studies
- Evaluation of the results achieved, as well as the limitations of previous studies, which determine the results and the content successor should continue research
- Clarifying the theoretical basis and research methods have been used to serve pa research thesis.

## 1.The need of research topics

### 1.1. Context

With the development of information technology, banking sectors are also very big change. Since traditional banks have developed into electronic banking and from which the name of the bank also differ are: e-Banking, mobile banking, home banking, internet banking. Bank management in the technology era is administrator of electronic services, administration of bank card services.

### 1.2.The use of bank cards in Vietnam

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companies ... the number and value of payments through POS increasing. Besides, awareness of card payments through POS has been a positive change of both cardholders and merchants payee.

Electronic payments at the point of sale POS installed number has increased rapidly, is expected to reach the goal of 250,000 by the end of 2015 POS (Thang, 2015)

### 1.3.Improve the number of customers using the card

- The need for research

Non-cash payments is a civilized form of payment in a modern society. Along with the development of the world about the banking sector, the Governor of the State Bank of Vietnam issued the non-use of cash in payments on 21.01.1994 by Decision No. 22 / NH.

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"The factors that affect the mind and decided to use a bank card: practical research in Vietnam" to help banking executives especially bankcard administrator find the cause of why customers unused cards that much through marketing more effective way in promoting customers use the card.

2. Overview of the situation of research intentions and decided to use the triangle pattern (technology acceptance model) in the world and in the country

In 1985, Fred Davis launched technology Acceptance Model (TAM) in his doctoral thesis at the MIT Sloan School of Management. Trong models Davis said that the engine of the user can be explained by 3 people Feel easy to use elements (Perceived easy of use), useful Comments (Perceived usefulness) and attitude use (attitude Toward using). He hypothesized that the attitude of the use of a system is a major determining factor will be whether the user confirms the actual use or abandon the system. The attitude of users is seen as affected by two major beliefs: Feel the Feeling useful and easy to use, including user-friendly Perception has a direct influence on the useful comment.

Mansfield et al (2012) also used the model to study TAM Consumers and credit cards. Research has compiled 537 articles from eight databases are aggregated and

assessed with particular parameters related to credit cards, with a final sample of 103 articles published between 1969 and 2012. This work is rich descriptive material about the attitude and behavior of credit card consumers. The article also suggests that scholars have studied deeply and clearly see the relationship of credit cards and consumer psychology. This study also identifies concepts are: The influence, behavior and cognition. ..

Nguyen Duy Thanh, Cao Hao Thi (2011), the proposed model of acceptance and use of electronic banking in Vietnam E- BAM (E - banking adoption model) and with the following results: Analysis of multivariate regression shows 8 factors as: expected efficiency, compatibility, perceived ease of use, perceived behavioral control, subjective standards, risks involved in the transaction, the bank image, legal factors .

### 3. The purpose and objective research

The aim of the thesis is to measure intention and decided to use bank cards to customers in Vietnam, testing the relationships of some of the variables affecting the intentions and decided to use bank cards from which proposed the policy implications of marketing to develop bank card market, while contributing to provide theoretical system of measurement and development model variables affect intentions and decided to use Bank card.

With this purpose, specific research objectives of the thesis are:

- Synthesis of the theoretical basis and practical research related to intention and decided to use a bank card.
- Identify the factors that affect the mind and decided to use a bank card.

- Building a model of the factors affecting the intention and decided to use a bank card.
- Policy Implications some marketing to maintain and expand use of bank cards and improve products and services in the future.

#### 4. Objects and scope of research

Thesis research focused on measuring intentions and decided to use a bank card.

The research scope of the thesis is the intention and decided to use a bank card.

#### 5. Research Methodology

Thesis research combines document with qualitative research methods and quantitative:

- Reviewing documents: documents theoretical and empirical research on mind and decided to use the TAM model of Davis (1989) in the country and abroad are aggregated to obtain theoretical system and practices underlying measurement method selecting and developing research models of the thesis.
- Qualitative research: using customer interviews with open-ended questions of primary data collection and analysis with qualitative analysis software to measure intention and decided to use as the bank card basis for the development of quantitative variables intention scale and decided to use the bank card
- Quantitative research: survey method using direct interviews with questionnaires to collect primary data from a bank card users, then the data were analyzed statistically with modern software to develop and test the developed scale, quantitative assessment of the intention, and decided to use a bank card along with

expertise on the relationship between the variables affecting the decision making and use of bank cards they have been proposed in the research model.

## 6. Contribution of topics

- This study contributes both in terms of theory and practice of mind and decided to use the bank card

In theory, the thesis has contributed the following:

Firstly, the thesis contributes to assert the reasonableness and useful when using mixed methods, combining qualitative research and quantitative research in measuring intentions and decided to use the bank card Vietnam

Second, the development of scales intentions and decided to use the Davis (1989), made in Vietnam own cuutruoc never been investigated here. Scale has been confirmed about the reliability and value with a combination of factor analysis to discover and assert factors. Process development and scale intention decided to use a bank card can be expanded to apply to other locations in other markets.

At a practical level, this study contributes the following aspects

First, this research is in-depth study about the intention and decided to use a bank card because it provides useful information and full customer for bank managers to get an objective view and assess their customers so that they will make management decisions more suitable for the construction and adjustment to have a positive image of the expected with the search function is available in a marketing plan comprehensive and effective.

Second, on the basis of the results obtained from the research, the thesis given the implications for management activities to enhance the use of bank cards, choose

your target market in order to attract and maintain, oriented communication strategy, product design services. This management orientation towards a common goal done to increase the use of bank cards

## 7. Structure of the subject

The thesis consists of 6 chapters.

Introductory chapter, the chapter stated the urgency of the subject, review the situation of research intentions and decided to use the TAM model, goals and objectives, subjects and scope, methodology and contributions research.

Chapter 1, introduced to finance

Chapter 2, theoretical overview of the bank card, bank card market in Vietnam. Situation development bank cards in recent years and development oriented bank cards in the near future.

Chapter 2. The model and methodology research program synthesizes previous studies in the world to provide the theoretical basis and practical metrology intentions and decided to use a bank card. On the basis of a number of basic problems in the research measure intent and decision yet.

3.Trinh chapter provides an analysis of the data.

4.Trinh chapter presents the research results.

Chapter 5.Dua draw conclusions from the results of the study, the contribution policy implications for marketing managers, the limitations of the study and provides direction for future research on another greenhouse trial .

## CHAPTER 2

## THEORY OVERVIEW BANK CARDS

### 2.1. OVERVIEW OF NON-CASH PAYMENT

In the world of economic development, the concept of "pay" is almost synonymous with "non-cash payment through the bank"

"Pay non-cash payments through banks, is a combination of relationship monetary payments are made by deduction from the account transferred to another person's account at the bank, with the control control of the bank without the use of cash "(Loc, 2004)

"Non-cash Payment is done but monetary liquidity, by citing the name of the account transfer or bank clearing customs clearance without direct use of cash in payments" ( Huyen, 2012).

In our country, the State Bank has issued proposals "Non-Cash Payment 2011-2015 period and orientations to 2020 in Vietnam"

#### 2.2.1 Basic Characteristics of non-cash payments

Non-cash payment has 3 main features that

- First, the non-cash payments using the money to transfer
- Second, there are at least three parties that are paid, the beneficiary and the intermediary payment
- Third, the proof of payment. Payment documents may be paper documents or electronic documents "(Huyen, 2012)

## 2.2.2. The form of payment is not the common language

Having said that the teenage means of non-cash payments

the Czech Republic, authorized to collect - collection, authorizations - payment orders, electronic payment and other payment means. In electronic payments also include electronic wallet, payment cards and electronic money (Huyen, 2012)

The notion that forms of non-cash payments are common: Payment by check, by debit authorization, authorized to collect, by letters of credit and bank card payments (Loc, 2004)

"Now in order to make payments through banks, the customer can choose one of the payment could have been issued in the regulation of payment via banks include:

- Payment by debit authorizations
- Payment by collection mandate
- Payment by bank card
- Pay with a credit
- Payment by check "(Chrysanthemum, Huy, & Russia, 2008)

### 2.2.2.1. Payment by debit authorizations

"Payment order is an order to spend money from the account holder in the standard form mandated payment orders specified by the bank, sent to the bank where you open an account, which requires banks to deduct a certain amount on financial sos his account to pay for the beneficiary ". (Buttons, Coat, & Russia, 2008)

Payment order by the client to sign and only based on that order to extract money from customer accounts to make payment to beneficiaries. The bank account automatically extract customer is not permitted unless otherwise agreed in writing.

Payment order does not mean the bank commissioned paying agent, authorizations must be made by clients, signing and banks based on that command only to extract money from customer accounts to make payment to beneficiaries. The bank automatically deduct the customer's account is not permitted unless otherwise agreed in writing

#### 2.2.2.2. Payment by collection mandate

"Voucher collection mandate is demanding money by selling units of pre-printed up, the bank commissioned to collect the money on the basis of goods or services supplied under the contract signed" (Loc, 2004)

As the account holder's order requires the collecting bank serves an amount based on the volume of goods delivered or services were supplied. This is the form to use payment of goods or services between clients with accounts in the same bank branch or between branches of a bank, between banks.

#### 2.2.2.3. Payment by bank card

"Bank cards are payment instruments issued by banks and provided to customers, used in payments and cash withdrawals at bank or automatic teller machines" (Chrysanthemum, Huy, & Russia, 2008 )

Payment by bank card is one of the forms of non-cash payments are being widely used in the world and also the electronic forms of payment are the most popular

today. Payment cards issued by the bank at the request of customers to pay for goods or services and cash advances.

#### 2.2.2.4. Pay with a credit

"A letter of credit is a written undertaking by the bank conditionally open at the request of users of payment services (letter of credit applicant)" (Chrysanthemum, Huy, & Russia, 2008), under which banks implement user requirements

"Letters of Credit (Letter of Credit - abbreviated as L / C) is a commitment conditional payment in writing by a financial institution (usually a bank) for the beneficiary of L / C ( usually a salesperson or service provider) provided that the beneficiary must present The scholars said:

"Bank cards (or debit card) as a means of cashless payment technology applications electronics, advanced medical informatics. Cards issued by banks on demand and affordability of the customer, to help users could pay to buy the goods quickly, convenient, accurate and safe "(Gender, 2007 )

"Versatile Card is the key to connecting cardholders other participating cardholders card payment system serving the movement of goods, currency agreed in advance to perform the services meet the needs of his "(Liang, 2003)

#### 2.2.2. Characterization of bank cards

Bank cards are made of plastic with a rectangular shape. "Size 95mm x 55mm usually x0,75 mm" (Liang, 2003)

On the card must meet the following signs: the name and logo of the bank, electronic memory, card number, card holder name, validity period of the card, the card-issuing institution name (for international cards) , magnetic stripe has 3 tracks

of information storage as account number, cardholder name, validity period, identification number (PIN), and other necessary information

### 2.2.3. Classification of bank cards

Based on different angles cards divided according to the following criteria: According to the technical features, issuing, billing, credit classes.

"From a content perspective recognizes the economic nature of the source of payment: Card is divided into 4 main categories" (Liang, 2003). Debit Card (debit card), credit card (credit card), card services and leisure travelers (travel and entertainment card - T & E card) and payment cards (charge cards)

"With the classification on the nature of card payments, bank cards are divided into (1) credit card credit card ñ it (such as visa, master card); and (2) debit card - debit card (ATM cards, charge cards) (Gender & Huy, 2007)

## 2.3. GENERAL ISSUES ON BANK CARD MARKET

### 2.3.1. The concept of the bank card market

"The market is a collection of the card agreement, through which the activities of purchase - sale of goods and services comply card market principles to help to pay for goods and services is done quickly fast "(Loc, 2004)

Card market with the following contents:

- A place for gathering the agreement of the parties in the market
- A place to meet the seller and the buyer keeps the goods and services cards

- To operate according to market principles with the aim of helping to pay for goods and services is done quickly

### 2.3.2. Principle of operation of the card market

As well as other commodity markets, the market operation of the card consists of 4 principles (Loc, 2004) the following: the principle of middlemen - selling, the principle of openness, clarity, competitive principles, principles institutionalized rule of law any purchase - sale transaction card

- Principles middlemen - sale: The actors are active on the market to open accounts at the bank. The implementation of the purchase and sale of products and services are booked through banks. Intermediate principle buy and sell is made in order to protect the interests of the players to participate in the market, guarantee the payment of money, goods or services with the card on the market are made quickly and safety.

- Principles of openness and clear: All activities of purchasing, selling or trading cards in the market are done openly, clearly. The publicity, clear expression that the purchase and sale of card products are specifically inform the necessary information related to the product, such as card services: utilities use the card, the fee khaonr services which the parties to bear- Competitive principle: The principle of competition in the market is expressed through the card purchase-sale transaction card payments are made based on the relationship of supply and demand for goods and services on the market card . Prices of goods and services shall be formed on the basis of supply and demand relationship, not a person, or entity imposing a price (service charges) according to their subjective.

- Principles of legalizing any purchase - sale, implementation of card transactions: This principle is expressed through the purchase - sale, trading cards in the market are regulated by the writer high-law of nature to protect the interests of the actors operating in the market, minimizing the cases of disputes, fraud, forgery or in the process of buying - selling, or making card transactions.

Thus card market also has fundamental problems like any other market that guarantees equal amount of goods and services purchased with the amount of goods and services sold.

### 2.3.3. Card issuing unit

Two card issuer's current leading organizations Visa and Master Card. There are also other brands such as American Express, Diners Club, JCB and domestic card products.

In 1996, Vietcombank is the first commercial product release bank card (Velvet, 2008) .Vao 2008, there are 30 banks participating service providers. To March 2013, there are 52 domestic commercial banks and foreign banks with registered capital of card issuance (Duyen, 2014)

## 2.4. ROLE OF BANK CARDS

### 2.4.1. For economy

- Ensure the development and stable operation of money markets Integration with the modernization of the world to create a global circulation
- Overcoming the disadvantages cuat cash payment
- Improve the management capacity of the central bank operator

- Improve the management capacity of the government operating
- Transparency of financial markets
- Anti-corruption
- Economic growth

#### 2.4.2. For banks

- Increased competitiveness
- Increase operational efficiency

#### 2.4.3. For customers using the card

First, payment cards offer the convenience of paying for goods and services for card users both at home and abroad. With a compact card and easy to store, cardholders can pay for goods and services at merchants on a global scale.

Second, bank cards provide safety in payment transactions. Bringing large amounts of cash when shopping, travel, work ... bring many risks. Risks of counterfeit money in payment nor less. When using payment cards will reduce such risks. Besides the application of modern technology in the production of the card so the card is difficult to forge. Signatures and other information are encrypted owners have limited lot occupied card status.

Third, bank cards help save time cardholders purchase of loading counting money, check the money as payment for goods and services valued at some time-consuming. On occasions there are spikes in demand as the Lunar New Year shopping ... then have to queue waiting to pay. But when using the card will save a lot of time for customers and create a civilization of payment transactions. Fourth,

bank card helps cardholders to control their spending. Bank cardholders will send detailed statement of transactions in a month at the end of each month and any gains that cardholders pay.

Thursday, bank card offer in the consumer civilization.

## 2.5. MARKET SITUATION IN VIETNAM BANK CARDS

### 2.5.1. The legal basis for the activities on card market

Cards are issued based on the legal basis of the host country and the provisions of the international card organizations. In addition, also released on the principle that the board of directors issuing bank (SPC Director General Director) regulations.

As a form of credit granting (for credit cards) should be issued cards on the basis of guarantee: clients need to meet the requirements for trust and mortgage. Capital loan is short-term funds.

In case of international payments, foreign currency payment limits must still comply with the foreign exchange policy and foreign exchange management of the Central Bank of each country on the payment, payment terms, allowed the payment for goods and services abroad.

The regulations on issuing currency, settlement currency, must comply with the conditions under which the Central Bank regulations.

After the release, the card is sent to the cardholder, the release branch is not disclosing personal identification number (Pin-Personal Identification number) of all risks arising the. Moi while cardholders have not received a card by the issuing bank is responsible.

The printing and loaded information on the card is fully implemented in accordance with the provisions of the appraisal and the necessary card information.

Currently, the State Bank has 2 decision on non-cash payments and use banking and payment cards are:

Decision No. 22 / QD-NH1 dated 02.21.1994 and the Decision of 371/199 / QD-NHNN1 19/10 / 1999. The legal basis for strict operating in Vietnam card market.

### 2.5.2. Current status card market in Vietnam

In the trend of globalization and financial liberalization, the strong development of technology policies and sustainable development was created by the government scrap a solid foundation for the modernization of the payment system. Market size ecommerce Vietnam than \$ 3 billion, but new electronic payment accounts for 5% of the value of goods and services procurement. Card market has also contributed greatly to this market.

In 2003, the number of cards issued is 234,000 cards (including domestic cards and cards (Tu, 2003). At this time, the growth rate is 300%. According to the State Bank penetration bank card than the means of non-cash payments other tends to increase.

Ten years later, in 2013, there are 46 commercial banks have ATMs and POS equipment (card reader), over 14,300 ATMs and more than 101,400 POS (Tu, 2003).

Table 1.1. Muc growth of bank card

<b>Year</b>	<b>Number of card million</b>	<b>ATM</b>	<b>POS</b>
2015	81,85	16.573	217.470
2014	79,2	15.669	175.830 EDC/POS
2013	66,2	15.300	130.000
2012	57,1	14.300	101.400

(Source: Author compiled 7/2016 from Annual report Card Association from 2012-2015)

Vietnam Bank Card Association has held annual conferences in 2014 has reported evaluation results of operations and the cumulative amount of cards issued 79.2 million cards over, an increase of 22% compared to 2013. About infrastructure, customer service card payment transaction, the member banks have installed ATMs and 15,669 EDC is 175.830thiet / POS. The main reason is due conscious customers the convenience of using the card and the number of ATMs and POS machines has increased.

In 20 years of construction and development, far VBCA has 40 members, representing 99% market share of the card, including most of the participating bank card business in Vietnam, including joint stock company payments Vietnam Family (NAPAs). Number of domestic cards are up about 90% of the total market of cards issued. As of 12.31.2015, the total market have 40/51 domestic card issuing banks, with the number of cards reached more than 81.85 million cards, including debit cards mainly. For domestic prepaid card, 14/51 to 12/31/2015 with the issuing bank cards, with the total number of cards issued reached more than 2

million cards, accounting for only 2.26% of market share of the card. Domestic credit card issuing bank with 256 825 8/51 card across markets

Table 1.2. Muc growth of bank cards under the area

<b>Thẻ phân theo phạm vi</b>	<b>Năm</b>			
	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Thẻ nội địa	50,26	59,87	71,61	81,85
Thẻ quốc tế	4,03	6,34	8,87	9, 24

(Source: Author compiled from the 2012-2015 report of the Department of payment)

Table 1.3: Growth of bank cards according to financial sources

<b>Financial card by source</b>	<b>Year</b>		
	<b>2012</b>	<b>2013</b>	<b>2014</b>
Debit card	50,89	61,11	73,59
Credit	1,62	2,43	3,29
Prepaid cards	1,78	2,67	3,51

"The ratio of cash in the total means of payment decreased from 20.3% in 2004 to 14% in 2010 and 10.96% to 10/2013 only" (Duyen, 2014)

Electronic payments at the point of sale POS installed number has increased rapidly, is expected to reach the goal of 250,000 by the end of 2015 POS (Thang, 2015)

According to the Nielsen Vietnam middle class in Vietnam will grow nearly 3 times higher from 13 million to 33 million people by 2020, the highest growth rate in Southeast sweltering consumer A.Nguoi ages 25 - 34 years. 92 million people in more than 40 million internet users (UK, 2015). Particularly in Visa e-commerce transactions using Visa products to reach annual growth of up to 44%. This is considered one of the highest growth figure region. Market penetration of e-commerce in Vietnam reached 18%, the highest position compared with competitors in the region (Preston, 3015)

A recent study was discovered by Moody's Economics showed that the rise of online payments has contributed 983 million dollars to the global economy (2008-2012) contributed 0.8% to growth GDP in emerging markets and 0.3% in developed markets (Preston, 3015).

Currently more than 20% of Vietnam's population has a bank account, the ratio is expected to be about 35-40% in 2015 (Fu, 2015)

## 2.6. CONSUMER BEHAVIOR

### 2.6.1. The concept of consumer behavior

In view of the traditional definitions of consumer behavior as follows: "Acts of consumers is the act of those who are directly involved in the use and benefits of products or services in the process of economic decided to carry out such action "(Optics & page, 2015)

Modern perspective assessment of consumer behavior as "behavior of consumers as dynamic interaction between three factors: Perception and cognition, behavior, and environment (surroundings), thereby promoting human exchange in the form of living together "(Optics & page, 2015)

Full definitions of consumer behavior as follows:

"Consumer behavior reflects overall the decisions of consumers on the acquisition, consumption, removal of goods, including products, services, activities and ideas, by the unit off decisions (human) over time "(Solomon, 1983) 2.6.2. Decision-making process of consumers

According to Philip Kotler (1999), the decision-making process consists of 5 steps: identify the problem, find information, evaluate options, make decisions, evaluate the results after the decision.

#### 2.6.2.1. Identify the problem

Buying process starts with the buyer aware of the need to buy cau.Nguoi feel no difference between the actual status and wish muon.Nhu state can demand stems from the stimuli within and without of all external actors the.Trong cases inside, one of the needs of ordinary people, such as hunger, thirst, sexual increased to a certain degree and become an urge. Due to previous experience, we understand how to deal with this impulse and its engine will be directed to the media can satisfy the urge.

Or a need may arise from a stimulus from the outside, such as from the media, advertising, friends, society, etc ... A passerby noodle shop and felt delicious taste pho rises stimulated by making them feel hungry. A woman saw a beautiful dress

her neighbors watch a program or advertise a new perfume, ... All these stimuli that may suggest a problem or needs.

Marketers at this stage to identify the circumstances often make consumers quickly understand the problem. They should study the context of its intended consumers to find out what made sense forms arising problems or needs, explains see what created them, and how they impact the consumer make the choice to go to buy a certain product

#### 2.6.2.2. Look for information

A consumer has needs, they start looking for information. If urge strong consumer and pleasant product in hand, consumers are likely to buy soon. Otherwise, consumers simply keep thuc.Nguoi demand potential consumers can not bear to find out more information, to find out some more information, or are actively looking for information related to the need bridge. In case they want to search for information, usually have the following resources:

- Source of personal information received from family, friends, neighbors and acquaintances.
- Sources of information collected through commercial advertising, salespeople, traders, packaging or the product display.
- Sources of public information received from the mass media and organizations.
- Sources of information from personal experience acquired through contact, survey or to use the product.

The relative influence of the source of this information to the purchase decision of consumers vary depending on product type and specifications of the buyer. In

general, consumers are receiving most of the information about the products from commercial sources, ie the sources of information that marketers can dominate it. However the most effective expression tend to source information from the source of commercial information than. Vi usually performs notification functions, and sources of personal information, perform functional assessment and confirmed . For example, the computer programming experts often know about the computer software products through commercial sources, but go talk to the experts other programming information about the assessment of the product software products.

Marketers need to format sources caution of consumers and the importance of each source of information do. Nen interview consumers see the brand they heard the first time in general, they have received information about, and the importance they have for the different sources of information was. This information is essential in drafting the content communicated effectively to your target market.

#### 2.6.2.3. Evaluation of options

Marketers need to find out if consumers have to process information how to choose the brand to buy the brand of the product categories that interest them.

When selecting products to purchase and consumption, consumers want to meet at the highest level of their demands by the main product search solution do. Ho of products the consumer benefits dinh. Nguoi see each product as a set of attributes with the ability to bring the benefits they hope to gain and satisfy their needs at different levels. The attributes that consumers interested vary depending on the product. For high-definition television is the picture, sound quality, color fidelity, ease of use and reasonable price. For the car is a safe level, the comfort, style and durability trendy use.

Even if the assessment of a product, its recognition of the attributes they consider most important or most striking is not quite the same. It is to note that the most outstanding attribute is not always the key attributes of the product. What emerged as consumers affected by an ad that emphasizes the attributes. Conversely, an attribute that is not really prominent as consumers may have neglected it, but when it is mentioned, is recognized as important.

It's really difficult for marketers is that all customers, or even a customer in all buying situations, do not use a buying decision process is simple and unique. There are many assessment process to come to a decision to purchase. However, most of the evaluation process are consumer-oriented awareness, ie the formation of the comments on the product, consumers are mainly based on consciousness and rationality. Consumers tend to build yourself a set of confidence in the brand, which they are evaluated using separate properties. These beliefs about the brand creates the image of the brand. Confidence in consumer brands will vary according to their experience and the impact of selective perception, selective distortion or selective remembering. Consumers forming attitudes (comments, favorite) for the brands through a review process.

#### 2.6.2.4. Decision shopping

Consumers will also be affected by the attitudes of others. "The attitude of others oppose closer to the consumer, the more likely consumers adjust their purchase intention" (Optics & Page, 2015)

This time also can appear the unexpected situation changed consumers to buy or awareness of the risks of the product.

#### 2.6.2.5. Evaluate the results after the decision

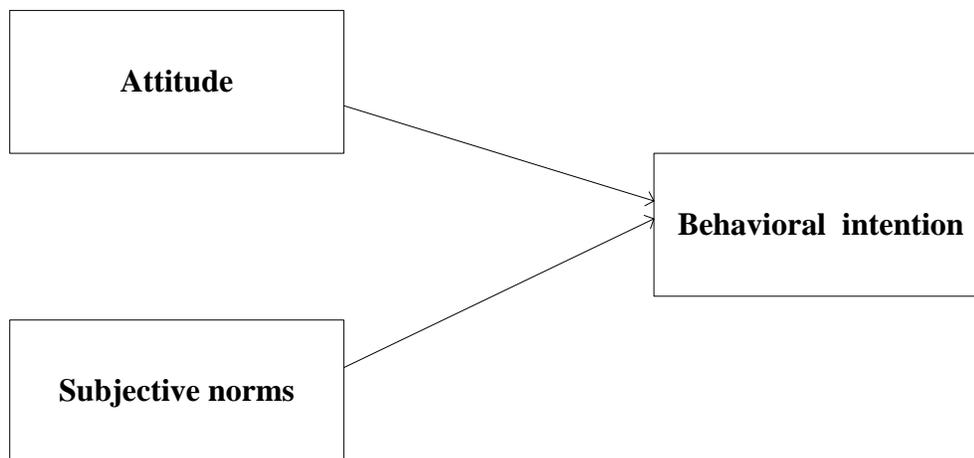
After purchase, the consumer can detect product defects, not happy or satisfied with the product. Consumers will react to the consumer's satisfaction with the product or application the expected level of benefits used. However, not commensurate with expectations from such products, consumers will not feel the benefit long. New products meet the consumer expectations. If it exceeds consumer expectations that they will be very happy.

## CHAPTER 3: BASIS THEORY AND RESEARCH MODEL

### 3.1 BASIS THEORY

### 3.2 THEORY OF REASONED ACTION (TRA)

Theory of rational action (TRA) Ajzen and Fishbein was first launched in 1975. The main factors affecting the intention is personal attitude and subjective standards (Figure 1):



Hình 1.1. Theory of Reasoned Action (TRA)  
Source: Davis, 1995, Bagozzi and Warshaw, trích trong Chuttur, M.Y., 2009, P.3

### Figure 3.1.Theory of reasonable action (TRA)

- The attitude of a person is measured by the confidence and appreciation for the results of that behavior (Ajzen, 1991).
- Standard subjectively aware of the impact that individual thinks should be done or not done behavior (Ajzen, 1991); It can be controlled or limited or not (Ajzen, 1991).

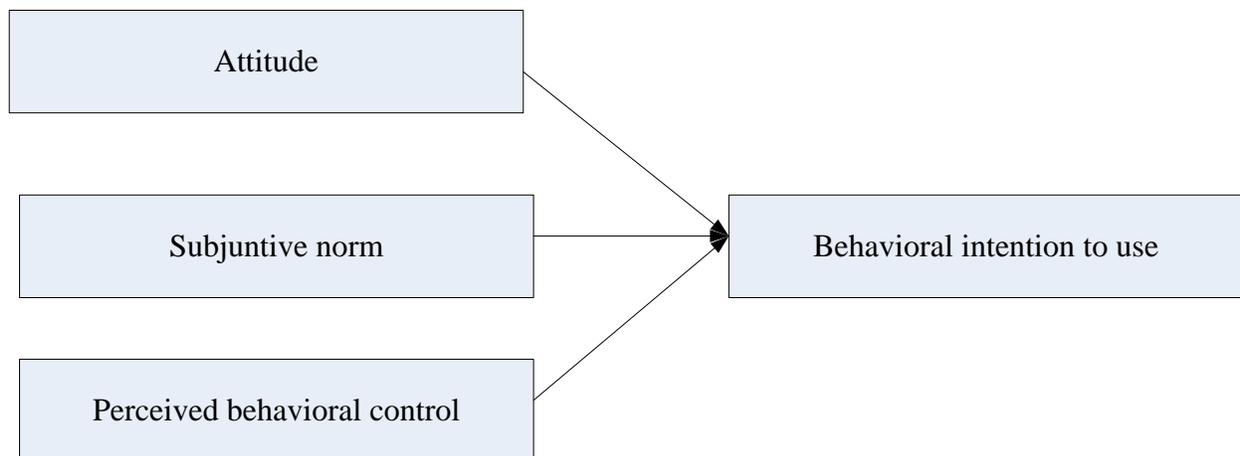
Ajzen and Fishbein (1991) assumes that individuals are often quite rational and systematic use of available information. Ajzen and Fishbein has developed a theory that can predict and understand the attitudes and behaviors. TRA theory aimed at the intended behavior (behavioral intentions) than attitudes (Attitudes), seen as the main predictor of behavior. In the theoretical model, Ajzen and Fishbein said that the real behavior of a person will be determined by considering the previous plan to him / her with the belief that he will have for certain behaviors.

When TRA is applied in the social sciences, the researchers found that this theory is not complete and there are few limits. To balance these observations, Ajzen added element 3 with the original theory. This element is the concept of perceived behavioral control (Perceived behavior control). The added element is a result of this new doctrine is called TPB (Theory of Planned Behavior)

### 3.3 THEORY OF BEHAVIOR Planned

Lecture planned behavior (TPB) is Ajzen was first introduced in 1985. TPB theory is the theory derived from the theory of TRA.

TPB is a theory of the connection between attitudes and behavior. Perceived behavioral control refers to a person's perception of the availability of skills, resources and opportunities that may be available or unavailable by an act. It has both the sense of inner control (such as skills and abilities of people) and external factors (opportunities and conditions) necessary to express the behavior (Chuttur, 2009)



Nguồn: Ajzen, I., the theory of planned behaviour, 1991, tr. 182

### Figure 3.2. Model behavior plans (TPB).

TPB is the expansion of the TRA. TPB is used to explain the not Ajzen and Fishbein full which was identified through studies using TRA, especially the ability of the model related to that individual behavior can control not fully rational. The heart of the TPB is intended to implement individual certain acts.

According to TPB, individual actions of certain behavior is determined by his intended / her to take action. According to Ajzen, behavioral attitudes toward the value positive or negative for the implementation of such acts. The purpose of TPB's theory predicts and understand the impact on the behavior of the engine which is not under the control of the will and to determine how and where the strategic goals for behavior change.

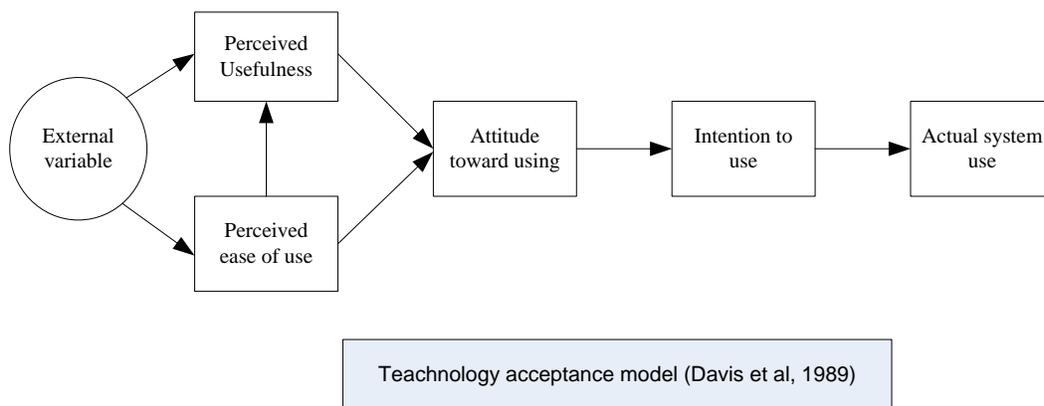
A major limitation of the TPB's theory is valid only when some aspects of behavior was less than control of the will. Theory is based on the assumption that people are rational and systematic decisions based on the information available; therefore, unconscious motives are not interested. Other issues not included into the interest factor calculated as personality (personality) and demographic variables as well as assumptions about perceived behavioral control predict certain behavioral control without always be considered.

Although limited, both TRA and TPB provides useful model that can predict real behavior of individuals. However, soon the problem application of this model for some context will occur, such as those used to accept an information system. Instead of developing a reliable model that can predict real behavior regardless of any particular technology, Davis applied logical theory and action plans initiated acts and TAM. Authors pay attention to the use of the system is the act by which, TRA and TPB is a suitable system to explain and predict behavior. However,

Davis has changed two of the TRA and TPB model. First, the author is not interested in social determinants to predict a certain behavior and only really interested in the attitude of the users towards it. Second, the authors distinguish two separate beliefs, feel useful and feel easy to use that it is enough to explain the attitude of the users for the use of a system.

### 3.4 TECHNOLOGY ACCEPTANCE MODEL (TAM)

In 1985, Fred Davis launched models Acceptance Technology (TAM) in his doctoral thesis at the MIT Sloan School of Management (Davis, 1985). Based on previous studies by Fishbein and Ajzen (1975), who have established a plausible theory of action (TRA) and other relevant studies, Davis has more refined his conceptual model to give the technology Adoption model Figure 2.



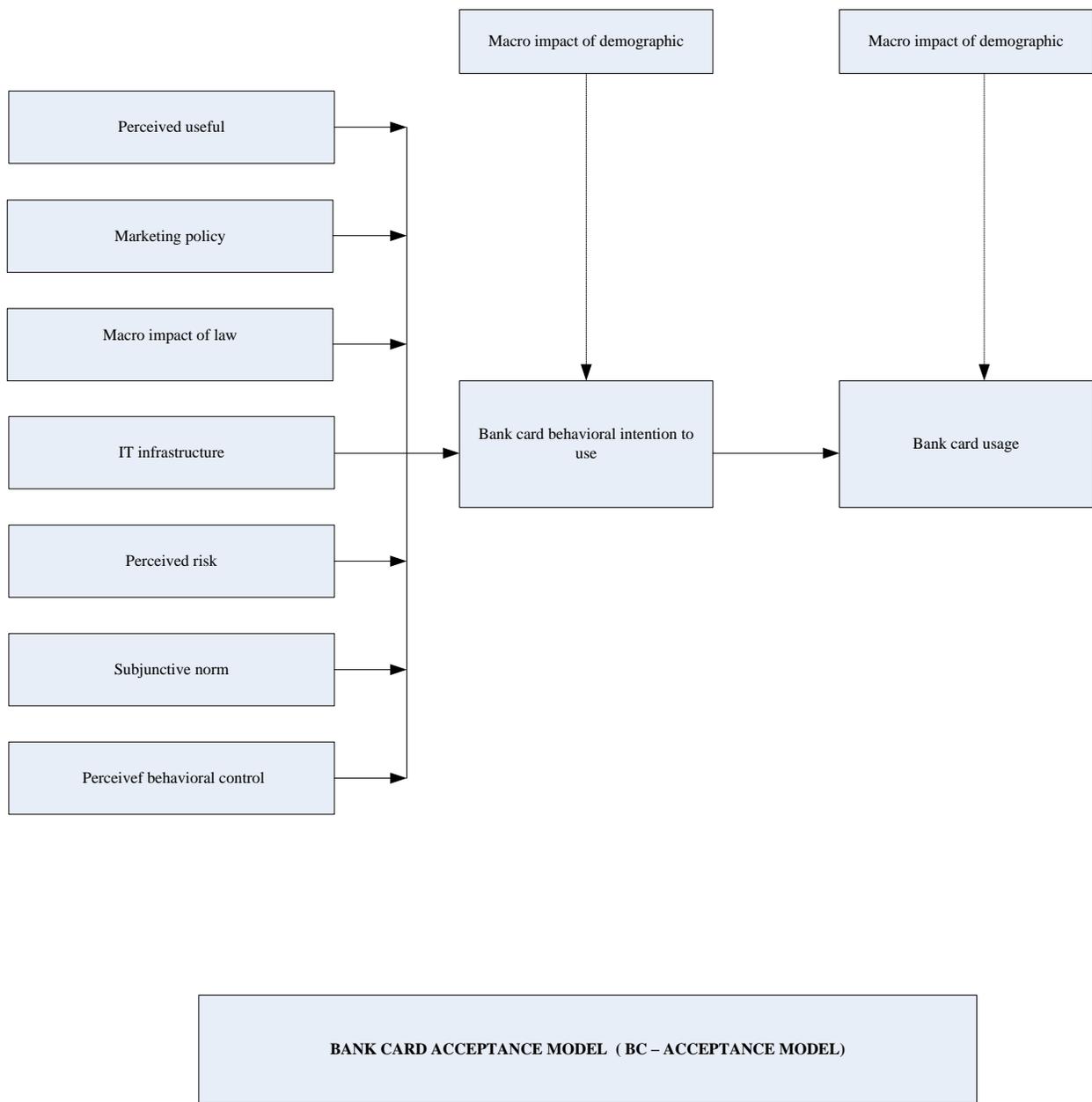
In this model, Davis said that the engine of the user can be explained by three factors Feel the ease of use (Perceived Easy of Use), useful Comments (Perceived usefullness) and Attitude use (Attitude Toward using ). He hypothesized that the attitude of the use of a system is a major determinant confirm whether users will actually use or to abandon the system. The attitude of users is seen as affected by two major beliefs: to feel useful and feel easy to use, including perceived ease of

use has a direct impact on the feel useful. Finally, both beliefs are assumptions that affect directly to the system.

During the experiment later, Davis (1985) has adjusted his model includes many other variables and changing the relationships that he has built up at the beginning. Many researchers have suggested the application and added to the model. Over time, TAM developed into the leading model in explaining and predicting economic use thong.Thuc system, TAM become so popular so it's been documented in most of the studies relating to the acceptance of the technology used (Lee, Kozar, & Larsen, 2003).

TAM is one theory is widely used to predict the behavior of the use of information technology of man. TAM said that attitudes predict intends, plans to predict behavior. According to TAM, application behavior is determined by the intended use of a system and plan members had allegedly identified by the attitude that attitude which in turn is Feeling Feeling useful and easy to use system. TAM model was tested on multiple technologies such as voice mail, e-mail, software, and on the World Wide Web ...

### 3.5 PROPOSALS MODEL



### 3.6 PARTIAL FACTORS ANALYSIS IN PROPOSALS MODEL

#### 3.6.1 Perceived useful : PU

Although there are many concepts of useful prohibit (PU), but most classic concept of Davis et al (1989) is most commonly used "Feeling useful is the degree to which a person believes that using a system system will improve job performance "

PU is also defined as "the belief that using a particular system would encourage individuals to perform their tasks"

Previous studies indicate that PU is an important indicator of technology acceptance (Davis et al., 1989; Yi et al., 2006). Several studies found no effect of PU needed to use the new system (Youafzai, Foxall, & Pallister, 2007). However, most studies have proven that PU impact on the use of information technology / information systems more user-friendly Perception (PEU) (Davis et al., 1989; Han et al., Karahanna et al., 2006; Rao & Troshani, 2007).

PU is an important element of a system. The system automatically and useful work gradually replace manipulation use. So PU going up, it will attract many users tend to use the new system (Park & Chen, 2007).

There are many aspects evaluate the usefulness of the system thong. Venkatesh grave et al (2003) confirmed that PU is a factor which it has the strongest driver intends to use. In the study by Liao and Cheung (2002) via electronic banking, PU is measured as a multi-dimensional quality to measure variables such as transaction speed, user-friendly, user experience use, accurate and convenient ... in the context of expansion of electronic payments, PU means available systems and help customers at any time and any space. That means that an innovation system, it is believed to be very useful when it meets the needs of people and a close connection with the use, productivity, efficiency, effectiveness and satisfaction (Lu, Yu, Liu & Yao, 2003).

"These customers are more receptive basic payment card in the bank was almost exploited. that means, it's time to develop the market in depth, in the direction of increasing utility for the cards and increased convenience for the cardholder "(Huyen, 2011). In addition to these functions often have to send cards like ATM, withdrawals, transfers, overdraft (Horvits, 1988). With featured the kind of new technology, the issuing bank and the card has as many utilities are more likely to attract the attention of customers using (Gender & Huy, 2006).

"Improving the quality of card services is the core issue of the commercial banks to develop Vietnam card market in the international integration process" (Velvet, 2008)

"The service providers also help to create value from the billing data. That is the case of Advanced Merchant Payments (AMP). Based on the data of POS transactions, they help build a more complete picture of the business of the enterprise and the ability to secure credit in order to enable them to access loans and finances working better or more efficiently. This is a value-added service beyond merchant services but on the basis of card acceptance services "(Mortimer-Schutts, 2015)

"Competition is leading to the popularity of converting basic value and thus promote the provider of payment services developed to seek profit from the value-added service. For example, the provider of payment services can assist customers in accessing credit, business analysis, reporting, and cross-check. They can also help companies accept different payment methods without additional investment in hardware, process or trade relations. "(Mortimer-Schutts, 2015)

"The innovation of payment services can help boosted the development of the financial sector and the business sector to make growth and reach new markets.

We need to encourage this. We - the traditional units involved - can not do everything. We need to support new participants to reach a sustainable financial infrastructure. This requires a continuing dialogue from which both facilitate the coordination of competition recently. It is for the benefit of our customers as well as the interests of our business in the future "(Mortimer-Schutts, 2015) The utility of the card not only generated by the issuing bank only, but also depends heavily on banks participating alliances or BankNet card or not, it allows a holder of the bank card it may also withdraw and pay through another bank's machine (Gender & Huy, 2006).

While research (Over & Nguyen, 2015) to eliminate variables "Agribank card product has many features the gadget" was eliminated when analyzing explore EFA. While rotating load factor is 0.498 coefficient of less than 0.5 were excluded from this analysis factors in stark contrast to the study (Gender & Huy, 2006) to test the relationship between the human elements, and intend to use ATM cards coefficient  $B = 0.859$ , standard deviation is 0.322, Beta = 0.221 and T-student is 2.666.

Look at the following definition "

"Usefulness": is an adjective which means "useful; contrary to useless "(Coffee, 2010)

"Benefits": it is useful, beneficial to a certain person or group of people for a while, in relation to the collective person (say generalization) "

"Utility": a noun, is "to serve the interests or create a certain benefit event (say generalization)" (Coffee, 2010)

"Convenience": means (say generalization) (Phe, 2010)

With the concept as above we see that the "utility" is also a small concept of "useful". So the authors chose the concept of utility into useful Feel PU.

TAM expansion model that PU is the strongest factor in predicting intends to use a system of individual

<b>CODE</b>	<b>Scale</b>	<b>Scale code</b>	<b>author</b>
		Original Illustration	
<b>PU</b>	Using bank cards are very convenient		
<b>PU</b>	Bank cards have a lot of gadgets		
<b>PU</b>	Using bank cards to save time		

### 3.6.2 IT infrastructure

Science and technology, (Gender & Awards 2006, Mai & Huy, 2012, Over & Nguyen, 2015

Define:

Infrastructure: noun 1. The foundation is below 2. Infrastructure (say off)

Technology: a noun,

Course:

Science and technology

IT infrastructure elements = Infrastructure technology (Over & Nguyen, 2015), (Gender & Huy, 2006), (Mai & Huy, 2012)

POS systems and the synchronization of IT infrastructure, software solutions are the elements of science and technology.

One of the determinants of business success is card technology infrastructure of the country in general and technology in particular card unit (Armstrong and Craven, 1993). "Science and technology is also weak factors affecting the use of the card for the people "(Gerrard & Cunningham, 2003) (Gerrard & Cunningham, 2003)

"Improvements in technology have a strong impact to business operations of the bank, it has brought miraculous changes of the banking business operations such as money transfer, sending machines - ATM automated teller , electronic cards, phone-banking, mobile-banking, internet-banking "(Gender & Huy, 2006). Scale factor in science and technology.

**Thang đo nhân tố khoa học và công nghệ.**

MÃ	TĐ	THANG ĐO GỐC	TÁC GIẢ
	There are many card-accepting units	Many card-accepting units	(Hơn & Nguyễn, 2015)
		Color, style and good quality card	(Hơn & Nguyễn, 2015)
	ATM systems, POS / EDC system wide layout ATM, POS / EDC wide	ATM systems, POS / EDC system wide layout ATM, POS / EDC wide layout	(Hơn & Nguyễn, 2015)

	layout		
	ATM. POS / EDC bank modern equipped ATM. POS / EDC bank modern equipped	ATM. POS / EDC bank modern equipped ATM. POS / EDC bank modern equipped	(Hơn & Nguyễn, 2015)
		Manipulation using bank ATMs Investment & Development as simple withdrawal	(Mai & Huy, 2012), (Giới & Huy, 2006)
		Manipulation using ATMs of Bank for Investment & Development to withdraw money with less	(Mai & Huy, 2012), (Giới & Huy, 2006)
		Interface (screen) ATMs Investment Banking & Development reasonable design	(Mai & Huy, 2012), (Giới & Huy, 2006)

With the results of research and discussion (Mai & Huy, 2012) after analyzing factors Thuu 3 times with 3 EFA factor is the policy of marketing, technology infrastructure, safety results KMO coefficient has value of 0.523 (factor analysis results are accepted), three factors are drawn after the implementation of rotation, and the total variance extracted 73.5% (satisfactory). Correlation regression results also showed a pattern regression with standardized data capable of explaining 70% ( $R = 70\%$ ) of the variation of the dependent variable with the independent variables included in the model. The number of factors are not standardized IT infrastructure  $B = -0.613$  technology, the standard error of 0, 105, standardized beta coefficient: -0,  $t = -5.848$  252, sig. = 0.000. With backend analysis to present an assessment of the level of the indicator object using ATMs by Bank for Investment & Development provided (do not intend to use, will be used and are using) the executive team calculated the average value of the indicator in the model is accepted (after the results of factor analysis to discover) and suggests that factors mainly IT infrastructure was poor judgment, especially is the time to use the machine and manipulate the interface of cash machines. The end result of the research team are two policy factors marketing, safety and impact increases decided to use ATM cards, factors that reduce IT infrastructure using ATMs intention of Investment Bank & Development and customer being underestimated in time off work and the interface of the automated teller machine that achievement the team has implied advice to the bank management for IT infrastructure elements are "improvements in operations teller automated teller machine towards simpler and shorten the time of operation"

(Look at the (Gender & Huy, 2006) showed a correlation coefficient of IT infrastructure elements coefficient  $B = 0.436$ , standard deviation of 0.046, 0.339 and T- Student Beta 9.555 (\*\*\*)). Group research has suggested solution is

"focused investment and development of infrastructure and information technology"

The result of the factors specified pools of Science and Technology's (Over & Nguyen, 2015) as follows: 0.254 beta value of 2.03 t (\*\*) and has concluded that "must be equipped with machinery was in line with the times, to avoid using outdated machines are not suitable for the development leads to customers not transactions .. "

Author (Gender & Huy, 2006) tested the model using regression analysis correlation multiples (multi-regression) for a model at uu.Tac author (Over & Nguyen, 2015) have used regression probit (probit regression) to find the optimal model.

### 3.6.3. Marketing policy

Policy marketing (Gender & Awards 2006, Mai & Huy, 2012)

Scale marketing policy

CO DE	SCALES MEASURE	MEASURE CODE ORIGINAL	AUTHOR
	The Bank provides bank card services, investment and development of the ATM service provider	The Bank provides bank card services, investment and development of the ATM service provider	
	Bank card organization to introduce investment bank customer and	Bank card organization to introduce investment bank customer and organizational	(Mai & Huy, 2012)

	organizational development services introduced	development services introduced	
	ATM card services to you	ATM card services to you	(Mai & Huy, 2012)
	Bank provides regular information on the card Investment Bank and Development provides information about regular ATM card	Bank provides regular information on the card Investment Bank and Development provides information about regular ATM card	(Mai & Huy, 2012)
	Bank customers with gifts for traditional investment bank and develop gifts to traditional customers	Bank customers with gifts for traditional investment bank and develop gifts to traditional customers	(Mai & Huy, 2012)

3.6.4 Macro impact of law

Legal factors (macro impact of law) Gender & Huy, 2006, the Qing & Test, 2011,

Factors law (MIL) is the degree of influence of the law affecting the acceptance and use of bank card-based research in the "Recommended models accept and use electronic banking in Vietnam South "(bar & Test, 2011) and the" model study of factors affecting the intention and decided to use ATMs in Vietnam "(Gender &

Huy, 2006). Gender and Huy, 2006 that the card market is relatively new market in Vietnam. Armstrong and Craven(1993), Heck (1997) said that to a school, the cards work well, the government should map out a certain integration roadmap, according to which, there should be specific legislation such as (law transactions, electronic payment, electronic signature ...) to regulate the rights and obligations of the parties .... In addition there are other government policies and regulations to protect the safety of participants ... Gender and Huy have tested the relationship of factors and legal factors Intent using ATMs using regression models and legal factors have values as follows:

Variable	Coefficient B	Standard Deviation	Beta	T-student	Value	significance level	
MIL	1,060	0,067	0,580	13,016(***)			Giới và Huy, 2006
MIL	0,095		0,095		2,576	0,010	Thanh và Thi, 2011

Scale Scale code Original Illustration

Mã	Thang đo	Thang đo gốc	Tác giả
MIL	State policies and laws on banking and bank	State policies and laws on banking and	Thanh và Thi, 2011

MIL	cards Policy religious law and electronic	bank cards Policy religious law and electronic	
	The provisions of the State bank bank card transactions regulations of the State Bank of electronic transactions	The provisions of the State bank bank card transactions regulations of the State Bank of electronic transactions	Thanh và Thi, 2011
	Policy on financial stability and the government's monetary policy and financial stability of government monetary	Policy on financial stability and the government's monetary policy and financial stability of government monetary	Thanh và Thi, 2011

3.6.5. Perceived risk

Transaction risks (online transaction relating risk) Bars & Test, 2011, Tu & Archives, 2014

Risks perceived risk (PR: Perceived risk) is real any customer action also lead to unpleasant consequences. There are many definitions of PR "Perception of risk is

multidimensional structure with overall risks are divided into financial, psychological, efficiency, physical and social loss."

PR research in consumer behavior are introduced as any customer's actions can also lead to situations that are not satisfied. Or risk losing the ability to control individual (money, data, time), or system errors. Other studies mentioned PR as customer expectations damaged in the pursuit of desired results.

Irfan Basshir (2013) also summarized in the study factor has 8 research on human sense of risk (Perceived risk): Cheung (2001), Celik (2008), Lee (2009), Manzanoetal (2009), Chau & Chair (2010), Kesharwani & triphathy (2012), Kesharwani & Bisht (2012), Chiou and Shen (2012).

With the penetration of information technology systems based on the application of high-electronics, people worry about the variety of risks associated with the presence of electronic transactions. When the customer ready systems and banking services, they may be worried about the invisible forms of payment that it launched a service transaction does not face direct and physical payment services with the ability financial risk and performance feel threaten the privacy and safety (Costrllo, 2001). The intangible nature of electronic transactions leading to increased perceived risk of customers (Lee et al., 2005).

Speaking of PR, more than three-fifths of the respondents have experience in electronic transactions in the survey answered by Wu and Wang (2005), the results showed that more customers understand the potential existence of the risk because they use the system

more and have a better understanding of the system. PR is believed to be a factor to predict and is fenced port to use electronic payment (Wu & Wang, 2005), and played a role not actively in the decision of individuals to the application of electronic payment (Lee et al., 2005).

Positive relationship between perceived risk and apply the new system is confirmed by empirical research. PR significantly influence the purchasing decision of customers, which include not predict probability, dissatisfaction and costly consequences related to these decisions (Celik, 2008). Many customers apply financial services-related slow because risky issues (Costello, 2001) Take the oil such risks certainly exist or not, but consumers tend to be intolerant of this if they feel or believe they exist (Roger, 1985). That seems to electronic services, including electronic payment which includes in electronic form, no contact and physical services are viewed as risks (Featherman et al., 2006) .

Obstacles widely recognized for using bank cards is the lack of security and personal privacy on electronic payments, it is the most important failure challenge that banks face (Chan & Lu, 2004). Based on the discussions and the recognition of prior studies.

Featherman and Pavlou (2003) pointed out that PR reduces consumer confidence on the usefulness of an electronic payment service. In the study on the use of wireless services using mobile phones, Lu et al (2005) also prove useful comments are anticipated ease of use and perceived risk. Indeed, when a new system to disclose more risk, the more people believe in them decreased. PR would add TAM because consumers are aware and have no sense of risk awareness when evaluating new systems (Featherman & Pavlou, 2003).

Scale Scale code Original Illustration

Mã	Thang đo	Thang đo gốc	Tác giả
PRT	Card Transaction may not be secure transactions on the E	Card Transaction may not be secure transactions on the E	Thanh và Thi, 2011
	There may be fraud or lost funds using bank cards can be fraudulent or lost money when using E	There may be fraud or lost funds using bank cards can be fraudulent or lost money when using E	Thanh và Thi, 2011
	Using bank cards completely under control Using E	Using bank cards completely under control Using E	Thanh và Thi, 2011

According to Tu and Achievement, 2011 in model "A number of factors affect the intention to use your ATM card to receive pensions of retired officials in the city of Nha Trang" gave results weighting factors and the reliability of scale concept as follows:

Concepts and indicators	weighting factor	Confidence criticized	Variance (%)
Cảm nhận rủi ro	0,590-0,763	0,8535	56,655

And the results of testing the hypotheses of risk factors Perception is the regression coefficient: -0.104 (\*), and the results also show that perceived risk factors affecting the intention to use ATM card to get food flavor and has a negative impact on intention to use an ATM card to receive a pension with impact factor of 0.104.

Variable	Beta coefficient	Beta	Value t	Mức ý nghĩa
PRT	-0,101	-0,101	-2,579	0,006

PRT -0.101 -0.101 -2.579 0.006 The results indicate that the risk in the transaction (PRT) with negative regression coefficient (Beeta <0 should work in the direction of higher risk acceptable level E-banking (EBA) less, addition acceptance of E-banking using higher the floor made using E-Banking as much.

The research results suggest that managers "... attention to focus on design for user-friendly, useful, safe and without adventure, ... reduce perceived risks of using internet banking transactions, satisfaction and trust in the bank, will attract internet banking users "(Irfan Basshir, 2013)

Featherman and Pavlou (2003) pointed out that the risk Comments (PR) reduced consumer confidence on the usefulness of an electronic payment service. In the study on the use of wireless services using mobile phones, Lu et al (2005) also prove useful comments are anticipated ease of use and perceived risk. Indeed, when a new system to disclose more risk, the more people believe in them decreased. PR would add TAM because consumers are aware and have no sense of

risk awareness when evaluating new systems (Feather & Pavlou, 2003). The lower the level that the users feel, the risks of electronic payments will be, the higher the level of perceived utility (Cheng, Sheen, & Lou, 2006), from this idea.

### 3.6.6.subjective norm

Subjective standards (social impacts: subjective norm: SN) Bars & Test, 2011

Social influence is "Feel of a lot of people that hardly important to him think he should or not perform the behavior in question (Fishbein & Ajzen 1975). It involves planned because people often act on their feelings about what others think they should do (Tan & Teo, 2000). Scale social impact

code	SCALES MEASURE	MEASURE CODE ORIGINAL	AUTHOR
	The family advised me to use a bank card, and it can affect my choice family advised me to use a bank card, and it can affect my choice	The family advised me to use a bank card, and it can affect my choice family advised me to use a bank card, and it can affect my choice	
	Friends advised me to use a bank card, and it can affect my choices Friends advised me to use a bank card, and it can affect my choice	Friends advised me to use a bank card, and it can affect my choices Friends advised me to use a bank card, and it can affect my choice	
	The unit where I work told	The unit where I work told	Dung, 2012

	me to use the bank card and it can affect my choice where I work unit advised me to use a bank card, and it can affect my choice Dung, 2012	me to use the bank card and it can affect my choice where I work unit advised me to use a bank card, and it can affect my choice Dung, 2012	
	The Government of Vietnam has advised me to use a bank card and it affects my choices proposed Author	The Government of Vietnam has advised me to use a bank card and it affects my choices proposed Author	Tác giả đề xuất

Social impact is "perceived by a person that almost a lot of people are important to him think he should or not perform the behavior in question (" the person's Perception có most People who are Important to photographing he shouldnt or shouldnt think the behavior in question thực "(Fishbein & Ajzen 1975). It involves planned because people often act on their feelings about what others think they should do (Tan & Teo, 2000).

Taylor and Todd has studied social influences have a significant impact on intended use. Shih, Y.Y., and Fang, K (2004) demonstrated personal opinion is also a major source of reference to make a decision so:

3.6.7. Perceived behavioral control: PBC (Thanh & Thi, 2011, Tu & Tựu, 2014

Perceived behavioral control refers to personal beliefs concerning control beliefs reflected feel difficult (or easy) for the behavior can be affected (Ajzen, 1991). In addition, according to Ajzen (1991), perceived behavioral control reflects the belief according to the assessment of the resources and opportunities they need to in order to affect behavior.

Previous studies (Mathieson, 1991; Taylor & Todd, 1995b) showed that behavioral control Perception has a direct impact on the intention to use but it has a weaker impact helpful comment or attitude.

Previous studies (Mathieson, 1991; Taylor & Todd, 1995b) showed that behavioral control Perception has a direct impact on the intention to use but it has a weaker impact helpful comment or attitude.

<b>Mã số</b>	<b>Thang đo</b>	<b>Thang đo gốc</b>	<b>Tác giả</b>
	I have the knowledge and ability to use the bank card I Had the resource, knowledge, and ability to use internet banking	I have the knowledge and ability to use the bank card I Had the resource, knowledge, and ability to use internet banking	Ajzen and Fishbein (1980), Wu and Chen (2005)
	I feel confident when using bank cards I would use internet	I feel confident when using bank cards I would use internet	Ajzen and Fishbein (1980), Wu and Chen (2005)
	My self-control themselves when	My self-control themselves when	Ajzen and Fishbein (1980), Wu and Chen (2005)

	using bank cards Using was entirely with my internet banking	using bank cards Using was entirely with my internet banking	
--	---	---	--

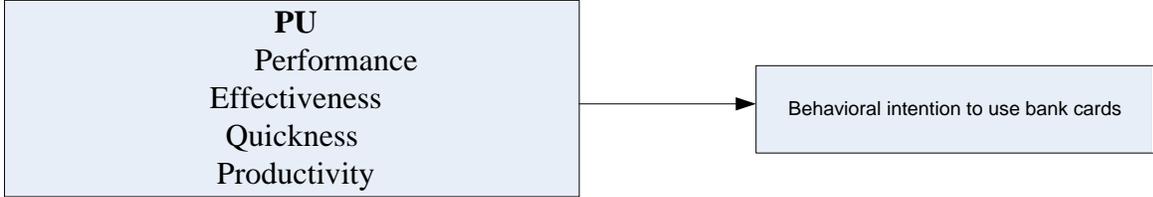
I have the knowledge and ability to use the bank card I Had the resource, knowledge, and ability to use internet banking

I feel confident when using bank cards I would use internet

My self-control themselves when using bank cards Using was entirely with my internet banking

3.7 3.7 THE ASSUMPTION MODEL STUDY PROPOSAL

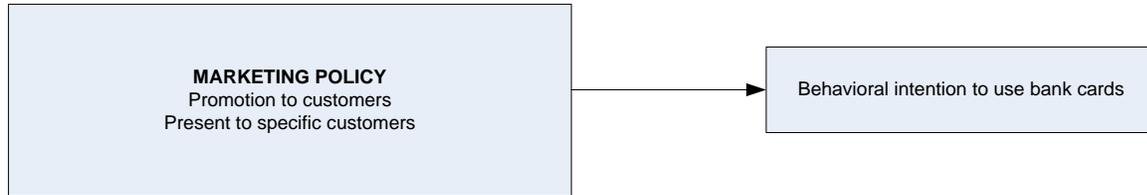
*Hypothesis H1: The perceived usefulness of bank cards covariates impact intend to use bank cards*



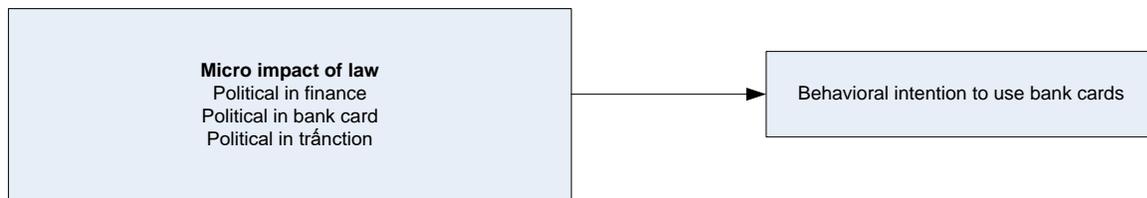
*Hypothesis H2: IT infrastructure have an impact covariates intend to use bank cards*



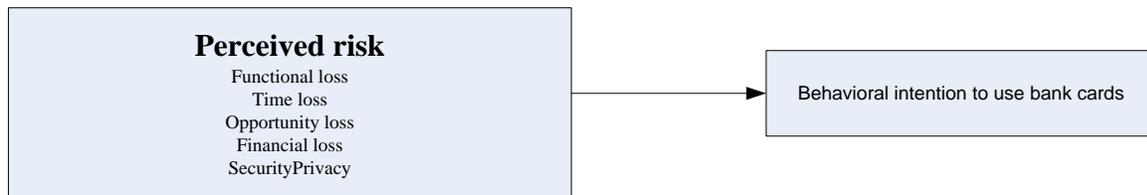
*Hypothesis H3: Marketing policy impact covariates with the intention to use bank cards*



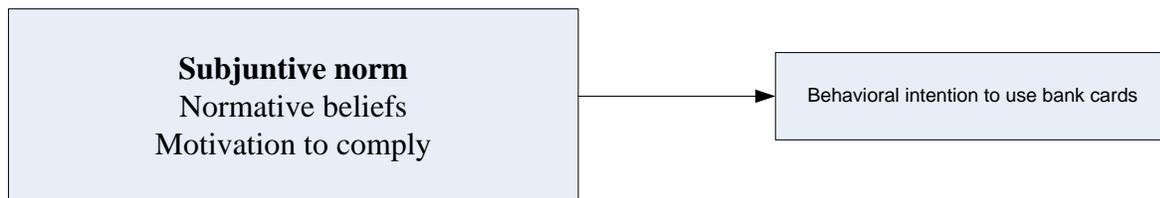
*Hypothesis H4: Micro impact of law impact covariates with the intention to use bank cards*



*Hypothesis H5: Perceived risk impact covariates to the intention to use bank cards*

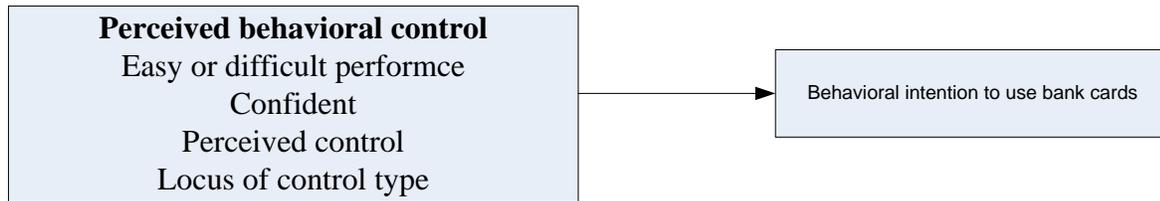


*Hypothesis H6: Subjunctive norm impact covariates intend to use bank cards*

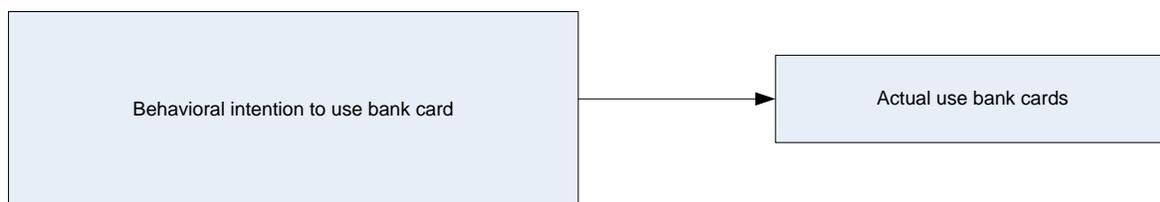


*Hypothesis 7: Perceived behavioral control positively impact with the*

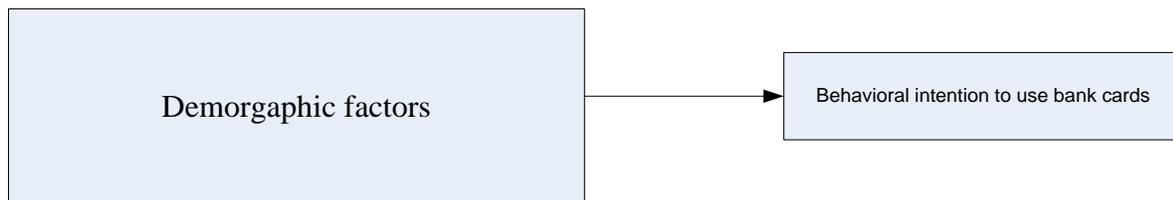
*intention of using bank cards*



*Hypothesis 8: The intend to use bank card impact the decision to use bank cards*



Hypothesis 9: The demographic factors make up the difference for the intention and decided to use the bank card



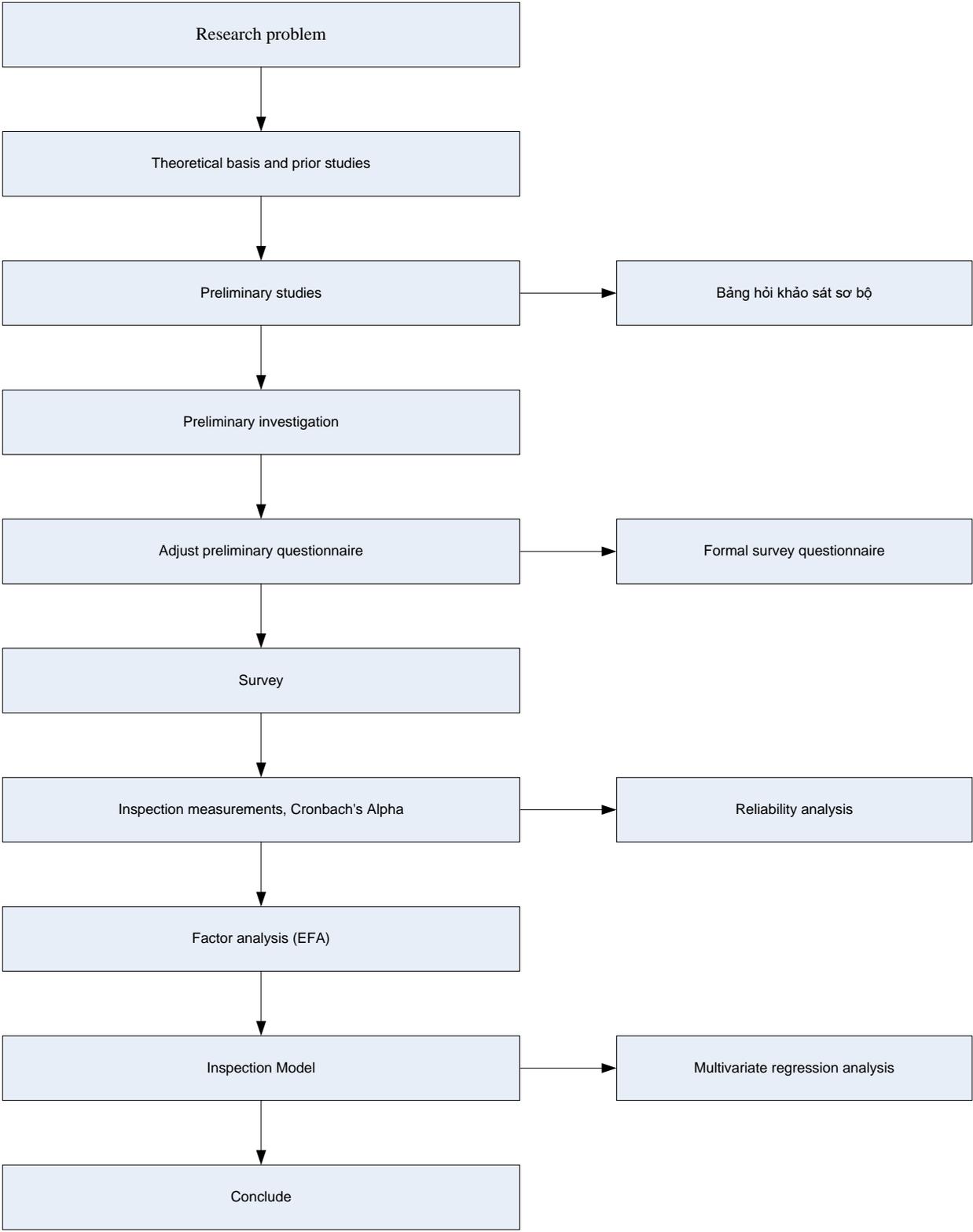
## CHAPTER 4

### RESEARCH METHODS

Chapter 3 presents the methodology of the research included the study design, build scale and questionnaire, survey data collected, the number of samples; overview of factor analysis and data analysis steps.

## 4.1 RESEARCH DESIGN

Figure: Process of studying



Source: Cao Hao Thi, 2006, quoted in Chau Ngo Anh Nhan, 2011, tr.18

## 4.2 CONSTRUCTION AND MEASUREMENT SCALE SURVEY QUESTIONNAIRE

### 4.2.1 Construction scale

The scale was built and developed from the theoretical basis and research models. The scale was translated into Vietnamese from the scales were used in the study were published earlier. So, before the official formation of scale for research objectives and in-depth interviews were carried out to confirm the subjects were interviewed to understand the content of the concept and meaning of words. Scales used in the study was 5 level Likert popular with the following: Strongly agree, agree, normal, disagree and strongly disagree. The use of this scale in the socio-economic study for the economic problems in society are most identifiable aspects.

### 4.2.2 The questionnaire survey

The questionnaire survey was carried out over the first two buoc.Dau based on theory and research needs, a preliminary questionnaire was formed. In the course of preliminary investigations, the author has synthesized and summarized the comments of the people surveyed. They are people who have knowledge of bank card or bank card used. At the same time the author has interviewed ... Preliminary questionnaire and the entire comments are presented in the appendix ...

## 4.3 SAMPLING METHOD AND DATA COLLECTION

0 Overall Research: Overall study who had knowledge of bank cards or have used bank cards

0 Sample Size: Provisions on the sample under Ballen (1989, cited in Chau Ngo Anh Nhan, 2011, p.19) is on a variable sample rate observed to ensure a minimum of

5.1. Under the provisions of Bollen, research .... The variable is the minimum number of samples to be ...

0 Sample: The research was done by adding to the questionnaire and mailed directly. The release questionnaires directly be done at banks, supermarkets, commercial centers, schools, at ATMs and at the places that use POS / EDC. At the same time the questionnaire was designed on google.doc at ... and is attached in the email sent to each subject studied

#### 4.4 INFORMATION FORM

Some samples are transmitted ...

Summary: Chapter 3 presented the research methodology of the subject. According to a preliminary questionnaire that was built from the theoretical basis and is adjusted through a preliminary survey. The formal survey is done by means of a questionnaire directly discovered and sent via email. The data collected will be analyzed using SPSS software starting process reliability analysis and factor analysis to draw the appropriate factor for regression analysis. After performing the test hypotheses consistent structural model of the overall model, regression analysis results will be answers to research questions of the theme "The factors that influence the intention and decided to use a bank card: practical research in Vietnam and the influence of factors like?

Chapter 5

#### DATA ANALYSIS

From the results of the data collected in the program design times 3. Chapter 4 will perform strategic analysis, including correlation analysis, reliability analysis, factor analysis, regression analysis model and finally test the hypotheses of the research model

## STATISTICAL ANALYSIS 5.1 DESCRIPTION

Descriptive statistical analysis is presented in Appendix

5.1.1 Statistics and frequency describes the characteristics of the individuals surveyed

- Survey results about gender:
- Survey results about age:
- Results of the survey on marital status
- Results of the survey on education
- Results of the survey on career
- Results of the survey on income

5.1.2 Statistics and frequency describes the characteristics related to bank cards

- The results of the survey on the level of understanding of bank cards
- Results of the survey on bank cards

## 5.2 ANALYSIS OF RELATIONSHIPS

5.2.1 The correlation between the independent variables in each group with the dependent variable factor

Using Pearson's test between the independent variables and the dependent variable showed that almost all research proposals factors are closely correlated with the intention of using, and decided to use the 1% significance level and 5%. This is the basis to proceed to step next factor analysis

5.2.2 The correlation between the independent variables in the same group of elements

Accreditation Pearson

### 5.3 ANALYSIS OF RELIABILITY

Scale reliability was assessed through two tools is Cronbach's alpha and factor analysis. Cronbach's alpha coefficient is a statistical test of the extent that the entries in the closely interrelated scales (Hoang Ngoc Trong & Joinery 2005, tr.251). Cronbach Alpha coefficients were calculated using the formula  $\text{Alpha} = N * p / [1 + p * (N-1)]$ , where p is the average correlation coefficient hiwuax position and N is the number of items to ask questions.

By convention, the set of questions used to measure items are rated as good to have alpha coefficients greater than or equal to 0.8. However, "the event's concept is a new measure, or new to the respondents in the context of research" Cronbach's alpha coefficient of 0.6 or higher is a measure to ensure the reliability and acceptable (Nunnally , 1978; Peterson, 1994; Slater, 1995, quoted in Ngoc Hoang Trong & Joinery, 2005, p. 258)

Bang5.1. Analysis Cronbach's Alpha reliability

Cronbach's Alpha group elements

#### 5.4. ANALYSIS OF FACTORS

Method of factor analysis was conducted to a shortened set of independent variables into a smaller set of variables that represent each element group without losing meaning and information solutions that factor group ( Ngoc Hoang Trong & Joinery 2005, tr.260)

Table 5.2. Ket KMO and Bartlett's test results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy

Bartlett's Test of Sphericity Approx. Chi-Square

DF

sig

Table factor analysis results

#### 5.5 MODEL OF ADJUSTMENT

Drawing model

Assumptions

## 5.6 Regression Analysis

Bang5.3.Danh value relevance of R-squared pattern and Durbin-Watson

...

ANOVA test results Table 5.4.Ket

...

Table 5.5. Results Enter regression method

## 5.7 Hypothesis Testing

Bang5.6. Hypothesis Testing Results

## ASSUMPTION OF INSPECTION RESULTS

Hypothesis H

## 5.8 INSPECTION OF VARIABLE DIFFERENCE OF PROPERTIES

5.8.1 Inspection meaningful use between males and females

5.8.2 Inspection meaningful use among people with different ages

5.8.3 Inspection meaningful use among people with different marital status

5.8.4 Inspection meaningful use of people with different levels of education

## Chapter 6

### CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 CONCLUSIONS AND CONTRIBUTION OF THEMES

#### 6.2 POLICY RECOMMENDATIONS

#### 6.3 RESTRICTIONS AND PLANS FOR FURTHER STUDY OF THEMES

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