Examining the Behavior of the Bank's Clients Using Pos Machines: A Case Study in the Branches of Keshavarzi Banks in I.R. Iran

[1]Jalal Salehi, [1]Mehdi Zaribaf and [2]Reza Zare

[1]Department of Business Management, Islamic Azad University, Firoozkuh, Iran
[2]Department of Public Management, Payame Noor University, Shiraz, Iran

Abstract: This survey has studied reputation of clients' shopping in Iran's Keshavarzi Bank in 2009 based on Davis Technology acceptance model (1986) and tries to present a suitable framework to use pos machines and examine the behavior of clients and analyzing it.

Key words: Clients · Point of Sale (pos)

INTRODUCTION

During recent years, the banks have started their movements to wards presenting electronic banking services along with rapid growth of information technology and development of communicational networks.

Services as self-payer machines, ATM, Telephone-bank, banking based on SMS, credit card, Debit Card, point of sale (pos) Internet banking and etc, are those that have been presented to the clients by banks [1].

Electronic Banking and its History: From the second half of 20 century, that computers entered to the life of humankind and the man could present the Internet global network using his extraordinary abilities, the banking world was affected by this phenomenon. The rapid growth of computer industry and the unprecedented development of using Inter net, has changed the meanings of banking and has created a new meaning called Electronic Banking. In modern world, Internet Banks which have small and suitable structures, have also high ability to present new and various services and therefore, they are the real competitors of traditional banks. If traditional banks could not adapt themselves to the new situation, they will be overturned as Dinosaurs and despite of their businesses they will be disappeared. Points of sales are the new and suitable tools to present services [2]. During recent decades, banking system has really changed and these changes could be divided into four periods. In each period, paper and people have been displaced by computer and software (Table 1) [3].

Table 1: The history of Electronic Banking

Period	Time
1. Automating the back part of the booth	1960
2. Automating the front part of the booth	1970
3. Connecting the clients to their accounts	1980
4. Integrating the systems and connecting	From mid- 1990
The clients to all Banking operations	Until now

The History of Pos: For the first time, pos was built by a French bank in 1960. It was used in a coffee shop.

There Are Different Types of Pos Such As: MAGIC, INGENICO and etc. Based on the kind of the card and special standards of it (ISO 7816 EMV), the pos machine is built. The other difference of pos machines is related to the way of card placing, vertical or horizontal [4].

Electronic Banking Services Opportunities and Threats: Inviting different group of people and classes to use Bank Cards as electronic purses of money and using them during purchase from shops, by help of encouraging, informing and making cultural policies, could have a main role in spreading the use of electronic banking services. Mean while, promoting the use of pos machines during shopping could be beneficial. Usually, all banks miss yearly 20-40 percent of their clients. According to the researches related to the external banks, it would involve 200-250 $ expenses to attract a new client.

Corresponding Author: R. Zare, Department of Public Management, Payame Noor University, Shiraz, Iran
E-mail: rezazare77@yahoo.com

Simply, it is clear that losing 1000 clients during each year, could involve 200000$ expense to a bank. Most of bankers and operators have recognized that the expense of attracting client is more than maintaining current clients. They believe that the loyalty of clients is the key to stay in such mysterious world [5].

In "How we can have the loyalty of clients and care for it?" Griffin refers to 12 principles causing the clients to remain faithful. The application of these principles would have positive results in organizations. The aimed contents are:

1: The loyalty of bank's employee is the pre need to making clients faithful.

2: Use principle 20-80 about the clients: based on performed researches, 80 percent of the bank's incomes is related to 20 percent of the clients. Therefore, the clients of a bank are not the same and some of them make more benefits.

3: Recognize the stages of clients loyalty and be sure that the clients step in that direction: The clients become faithful to the services of the bank on a special time.

4: At first, present your services and them start to sale. Modern clients are more clever and in tolerant than others in receiving services. They expect to trade with you without any force and enjoy it. They use pos services when the bank presents pleasing, beneficial and suitable services. If bank can not supply their desires, they will leave it.

5: Seek the reasons of dissatisfactions of clients seriously.

6: Find the solution and meet the needs.

7: Recognize the cases which are interpreted as value from the clients point of view.
"Value" is the key of passing toward loyalty. Usually, values are changing and the bank should recognize these values in the field of surveying satisfaction and loyalty of clients and serve them.

8: Attract the lost clients again:
These clients may have left the bank by any reason, but the main issue is to attract them again. For example, the clients could have motivation by "activity insurance" plan.

9: Using different channels to present services:
The bank can use different kinds of pos, as mobile or stable one, in this field.

10: Teach necessary skills to the main staff to present benefit service.

11: Pay many attention to the quality of services and the satisfactions of the clients. Compared to the past, the clients have more demands and their freedom degree to choose a suitable bank and pos machine has increased'. So, they should not have any excuse.

12: Collect your information in one center [6].

Advantages of Electronic Banking: Establishing Electronic banking services and using communicational-informational technology have many advantages, that some of which includes:

- Decreasing air pollution and economizing in the use of fuel and decreasing urban journey.
- Using the strategies of electronic trade.
- Non depending to the particular branches.
- Increasing the presentation of banking services out of formal hours of the bank (2th$_s$)
- Presenting improved services to the clients.
- Emphasizing on clients in their exchanges with the Bank.
- Emphasizing on redistribution channels.
- Economizing in the time of the staff and the clients, decreasing the physical carrying of documents in the branches [7.
- Increasing the quality and efficiency and controlling centrally.
- Creating necessary field to have better connection with internal and external banks.
- Decreasing the expense and long lines in branches [8].

Threats of Electronic Banking Services:

- Operational Risk
- The risk related to the reputation advantage
- The salary Risk
- The strategic and commercial risks [4].

Research Hypothesis:

- There is a meaningful relationship between the number of pos in shops and the reputation of clients' shopping's.
- There is a meaningful relationship between unsuitable distribution of pos in shops and the reputation of clients' shopping.
- There is a meaningful relationship between non-connecting to the center and the reputation of clients' shopping's.

• There is a meaningful relationship between recognizing the card by pos and the reputation of clients' shopping.

Research Question: Is there any relationship between the condition of affecting barriers on clients' non-using?

MATERIALS AND METHODS

In this survey, the reputation of clients' shopping is dependent variant and the number of pos_s, unsuitable distribution of pos_s, non-connection with the center and non-recognition of card by pos machines are independent one. The questionnaire used in this survey is due to the necessities of Keshavarzi Bank in Iran. It is also due to Likert five-choices spectrum.

Due to cronbach α-coefficient, reliability of this questionnaire is 0.84 and it has a suitable reliability because it is more than 0.7 [9].

Its validity had been affirmed by advisors and managers of Keshavarzi bank. Statistical ways used in this survey are ANOVA, T test, Two Tail Test, Pearson Test, Friedman test.

The sampling method in this survey is merely cluster one. In each cluster, the sampling has been done randomly and includes only those who have debit cards. Since the total number of debit cards issued at Keshavarzi bank has been 8154500 until 30.8.2009. Due to Cochran formula, the statistical number in this survey is 196 [10].

Formula 1) Cochran Formula Used to Determine the Number of Statistical Sample:

$\alpha = 0.05$

$z_{\alpha/2} = 1.96 \quad p = 0.5$

$\varepsilon = 0.07 \quad N = 8154500 \quad n = \dfrac{NZ_{\alpha/2}^2 pq}{(N-1)\varepsilon^2 + Z_{\alpha/2}^2 pq} = 196$

$q = 1 - 0.5 = 0.5$

200 questionnaires were distributed in Tehran, Azarbayjan, Isfahan, Booshehr, Khorasan and Mazandaran and from them, 196 were analyzed.

The used model in this survey is due to the Davis technology acceptance model [11].

Conceptual Model in the Survey: This model is based on Davis one and is used to present executive strategies and suggestions to improve efficiency an quality of pos_s and to use pos really. The barriers and the problems are independent variant and using pos is regarded as dependent one.

Descriptive Statistical Analyzing of Demographic Characteristics of the Research: In this survey, some characteristics as sex, age, education and job had been examined. The follow table relates to one of answerers' characteristics.
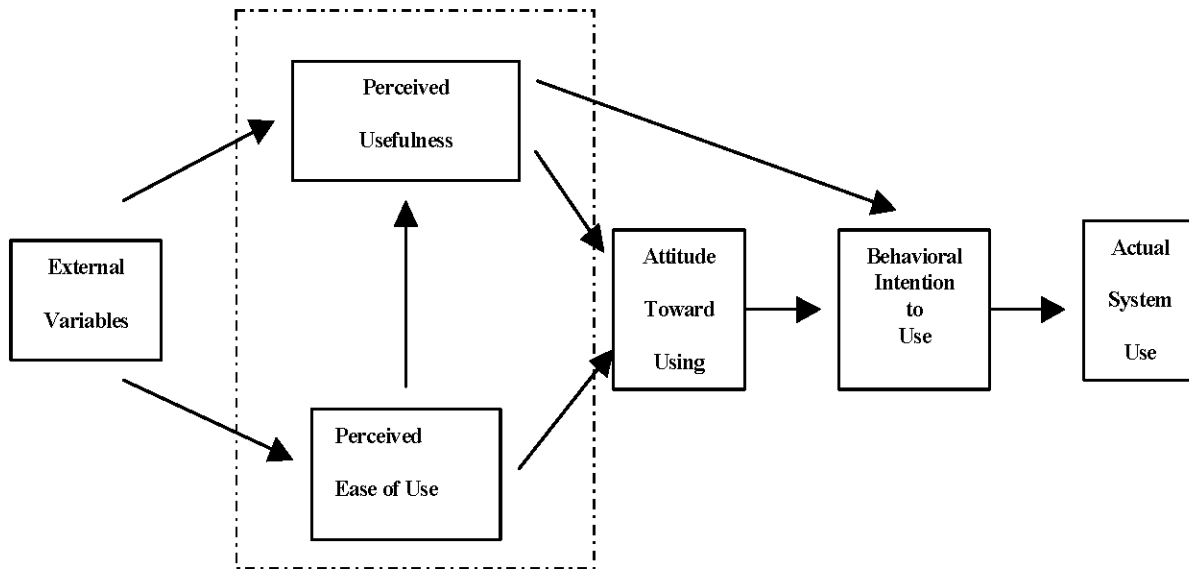

Fig. 2: Davis technology acceptance conceptual model [11]

Customers (1.hesitate customers 2.potential customers 3.one day customers 4.client customers)The factors affecting on using pos from the clients point of view(Recognizing the barriers and problems better) = recognition and emotional response Few number, unsuitable distribution, breaking off relationship, non-recognition of card (security)

⬇
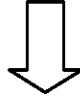
Using poss (behavioral response)

Fig. 3: The conceptual model in this survey

Analyzing Survey's Hypothesis: Hypothesis 1: The low number of pos_s at shops causes the clients not to use them.

Due to Table 3 and Pearson correlation which is equal to 0.477 and meaningful number (0.000) = (2 Tail), the sig this is less than 0.05 shows that this hypothesis with %1 error is affirmed.

Hypothesis 2: Unsuitable distribution of pos_s in shops, is one of the main reason that the clients don't use them.

According to Table 4, Pearson correlation and sig(2 Tail) = (0.000) which is less than .05, the level of error of this hypothesis is affirmed when it is %1.

Hypothesis 3: Non-connection of center with one of the affecting factors on clients' non-using.

According to Table 5 and Pearson correlation and sig(2 Tail) = (0.000) which is less than 0.5, the level of error of this hypothesis is affirmed when it is %1.

Hypothesis 4: Non- recognition of card by pos University is one of affecting factors on clients' non-using.

Due to Table 6 and Pearson correlation and sig(2 Tail) = (0.000) which is less than 0.5, the error level of this hypothesis is affirmed when it is %1.

Friedman Test has been used to answer the main research question and to determine the level of each factor determining the main factor in clients' non-using from pos.

Research Question: Is there any relationship between the condition of affecting barriers on clients' non-using?.

Due to Table 7 and sig(2 Tail)= (0.000) which is less than 0.5, this hypothesis is affirmed while its error level is %1.

Due to Table 8, the main factor affecting on clients' non-using from pos machines is non-recognition of card by the machines.

Table 2: Descriptive static of demographic characteristics

Relative Frequency	Number	Value	Variable
%18.36	36	Female	Sexuality
%81.63	160	Male	
%38.20	75	15-25	Age
%40.82	69	26-35	
%16.83	33	36-45	
%6.6	13	46-55	
%2.4	4	56 and higher	
%10.2	20	Under diploma	Education
%37.75	74	Diploma	
%15.81	31	Technician	
%30.61	60	B.Sc and higher	
%38.26	78	worker	Job
%34.18	67	employee	
%2	4	Retired	
%17.85	35	Student	
%2.55	5	House wife	

Table 3: The relationship between the low number of pos_s and non-using of the clients

Pearson correlation	.477
N	196
Sig (2 Tail)	0.000

$p < \%1$

Table 4: The relationship between unsuitable distribution of pos and clients' non-using

Pearson correlation	.697
N	196
Sig (2 Tail)	0.000

$p < \%1$

Table 5: The relationship between non-connection with the center of pos and clients' non-using

Pearson correlation	.243
N	196
Sig (2 Tail)	0.000

$p < \%1$

Table 6: The relationship between non-recognition of card by pos and clients' non-using

Pearson correlation	.523
N	196
Sig (2 Tail)	0.000

p < %1

Table 7: Friedman test

Chi- square	414.859
Df	3.000
Sig (2 Tail)	0.000

p < %1

Table 8: Grading the current problems

Variable	Mean Rank	Mean
Disconnection with the center	503.70	4.48
Recognizing the card by pos	565.73	5.78
Unsuitable distribution	420.78	3.61
The low number of pos in the shops	386.86	2.92

Data Analyzing: The research implies that the possibility of using pos machines for these who are young, educated and employee, is more than others so, these people should be included in the first class to use pos machines in crowded shops as computer's soft and hardware shops, book shops, fairs and etc, cause the possibility of using pos machines to improve.

According to the results of this survey, it is suggested that the banks, specially Keshavarzi Bank, should notice to the quality of these machines along with quantitative distribution polices of sale services. This survey shows that the owners of the Banking cards may face to some barriers and limitations that affect on their using from pos machines. Some of executive strategies which improve the quality of Bank's pos machines are as follows:

- Using the capacities of private part suitably and optimally (out sourcing) in order to control better and increase the quality to solve some problems as disconnection, non-representation of the statement and non-recognition of card by machine."
- In creasing the lines in order to improve the speed of connecting to the center and to solve the problem of the time.
- In creasing the quantity and the number of pos machines in order to solve some problems as the lack of pos machines in the shops.
- Solving the problem like unsuitable distribution of pos, by suitable and spread distribution.

- Suitable informing and publicizing by the bank in order to present this service and relative advantages to improve some problems like the high tendency of the seller in order to accept more and the high tendency of the clients in order to use the machines more and to enumerate pos' advantages.

In order to increase the knowledge of the sellers from the advantages of using pos machines, it is necessary to pay attention to the financial stimulus like the wages of pos services and granting a wards to promote them using pos machines.

Another strategy to encourage the clients to use pos is to grant a wards to the active acceptors of pos machines, on the condition that the rate of their financial activity be more than a special rate (knowing main sellers).

Another factor which affect on the encouragement of the sellers to use pos machines is the Bank's procedure related to the quality of servicing the accepters.

The Main Related Issues in this Regard Includes:

- Presenting pos machines bases on the obligations
- The quality of erection of the pos machine
- Suitable learning of pos machine's output
- Presenting supporting services in necessary time
- Setting with the clients and the sellers on time
- Checking the account rapidly and removing possible contradictions
- Presenting more various facilities to active acceptors.

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