### Effect of E-CRM System on Attracting Bank Deposits

FarnadFarnad

PHD in Business management, Islamic Azad University Tehran, Iran

### Zahra Sadat Afghah

Master student in, Urban management, Islamic Azad University Tehran, Iran

### ABSTRACT

This study tries to review actual customers of banks and identify the effect of e-CRM system on attracting bank deposits with a scientific method Descriptive statistics to summarize data and describe them and inferential statistical methods such as PLS structural model to intended testing hypotheses, we used to . The statistical population included all actual customers of EghtesadNovin,Ayandeh,Keshavarzi, and Melli banks in Tehran. .To determine the sample size formulaKokaran to be used in large community sample size was 150

. After sampling, the questionnaire was given to them and their views were analyzedusing statistical indicators. To verify the questionnaire validity some supervisors and experts were referred. After receiving their opinions, the initial questionnaire was amended and approved. the questionnaire reliability was calculated using PLS and smartpls. Finally, after data analysis using PLS; it was found that the e-CRM implementation and the commitment, promotional and analytical dimensions are effective in attracting bank deposits according to the statistical sample.

### Keywords

e-CRM-commitment dimension- analytical dimensionpromotional dimension -communication dimension -bank deposits.

### Introduction

Today, any bank considers different indicators effective in attracting deposits and considers the overall deposit attraction policy about the criteria on which a consensus has been reached. Deposit is one of the most important existential philosophies of banks. It can safely be said that the development of a bank primarily depends on its increased deposits.

Customer Relationship Management (CRM) can increase organizational income through the use of enterprise information and knowledge in order to facilitate the allocation ofresources and find the best solutions and quickly customize them with customers' needs. In banks, the customer is the lifeblood, so the community expects the banking system to try to attract deposits and properly allocate them to economic beneficial activities which ultimately lead to the profitability of banks and credit institutions. Therefore in the competitive environment of banks, those are more successful that can improve customer loyalty.

This research specifically focuses on the impact of e-CRM system on attracting bank deposits.

### Theoretical

### **Customer Relationship Management**

CRM stands for Customer Relationship Management. In Iran, it is Known as customer relationship management! This concept is a strategy that is used to learn more about customers' needs and behaviors and more communication. Good relationship with customers is the key to business success. CRM is a set of methodologies, processes, applications and systems that help institutions and companies in the organized and effective management of customer relationship (Barnett 2009). Customer relationship management, as a process, includes observation of the customers, assessing and managing the data and eventually creation of a real advantage of the extracted data in interaction with them(Hamper,2012)

#### **Problem Expression**

One of the most important tasks of economic researchers and professionals is to understand and identify the factors affecting the balance of deposits for the health of banks now and in their future development.

Due to the advancement of information and communication technology (ICT), we face another concept of CRM which is electronic CRM (e-CRM). It is an integrated online marketing, sales and service strategy that plays a role in identifying, acquiring and keeping customers as organizational capital. The e-CRM improves relationships between the company and customers by creating and en-

### International Journal of Information, Security and Systems Management, 2017,Vol.6,No.1, pp. 615-621

hancing customer relationships through new technology. The e-CRM software creates profiles and a history of any contact between the organization and the customer. The e-CRM is a combination of hardware, software, applications and management obligations.

The e-CRM is an efficient tool for delivering timely customer service and a suitable context for providing the best customer service and a paved way for victory in the competition (Jahanian, 2007). Banking benefits include the integration of different channels, data management, expanding customer range, directing customers to appropriate channels with desirable traits and reduced costs. Reduced transaction processing costs, providing services to customers in the target market and income generation are also among long-term benefits of electronic banking (Ajinkya 2000).

### Attracting funds in banks

Attracting funds in banks is of great importance because any bank requires liquidity to promote its operations. There are different tools to attract resources such as types of deposits, borrowings from the central bank and bond purchase. Any bank must evaluate the costs of its resource attraction by these tools in terms of flexibility. In addition, banks must identify and consider factors affecting capital to make decisions and to ensure acceptable performance on the use of these resources. Attracting deposits is another way to collect funds which includes an important part of management policies in banks. Most banks compete to attract more deposits. Commercial banks have not full control over deposits, but can influence the amount of deposits. Many factors influence the level of deposits such as tax and monetary rules and regulations (controllable) (Alborzi et al., 2011).

This study aims to investigate the effect of e-CRM system in attracting deposits in EghtesadNovin, Ayandeh, Keshavarzi, and Melli in the spring of 2014.

### **Materials and Methods**

This study is applied in terms in terms of objective and descriptive- survey in terms of method. A descriptive study includes procedures which aim to describe the current situation or support the decision process (Moghimi,2007). In descriptive studies, the studied population can be investigated through survey (kumar,1995). This study uses the descriptive-survey method because such research describes the population based on one or more variables (Sarmad,2004).

In banking system, customers are the fundamental pivot and in fact, all actions are performed for attracting their attention and satisfaction. Consequently, in the competitive inter-bank environment, those who would be able to gain more customers' loyalty would be more successful. Considering the fact that accepting customer relationship

management has a close bond with organizational and environmental fields and the fact that e-crm, is considered as a novel technology for IT business, it could be recognized as a technological innovation at the organizations. (Zanjirchi and others, 2012). Electronic business relationship management is an integrated marketing, selling and online services strategy which plays a role in identification, gaining and maintenance of the customers as the biggest asset of the company. Electronic business relationship management, improves the relation between the company and the customers by creating relation with the customer through the new technology. In fact, the main objective of e-CRM, is attracting better customers for increasing loyalty and interest. Electronic business relationship management, is a combination of hardware, software, applications and management commitments which takes new forms considering the objectives of the organization. It does not merely include software and technology; however, it includes business process based on customer-oriented strategy which is being supported by various software and technology. The most significant demand of the organizations is concentrating on their customers individually and presenting their services to them and afterwards being in long-term relationship with them and get rid of all the obstacles and harms that exist between the customer and the supplier and do not contain added value. These objectives would be fulfilled in digital environment by making e-CRM electronic. Achieving customers' loyalty is much more difficult in e-CRM rather than in CRM; however, the advantages of using e-CRM are significant and in today cyber world, organizations need tools like e-CRM in order to survive. (Zanjirchi and others, 2012)

When the researcher would want the correlation of a complex of variables summarize the alterations of the variables in a more limited factors or determine the fundamental features of a complex of data, he would use factor-analysis. In case the researcher would want to test a specific model regarding the relations among the variables under assessment, he would use structural equation modelling. (Sarmad, Bazargan and Hejazi, 2005). In this research, the method of the descriptive research is survey research, as it endeavors to describe, analyze and interpret the existing situation and on the other hand, it is descriptive correlational, of structural exploratory equation.

### **Statistical Population**

The statistical population of this research, in terms of location, is the branches of EghesadNovin, Ayandeh, Keshavarzi, and Melli banks in Tehran, and in terms people, is the customers of the listed banks.

### Sampling method and sample size estimation

To select statistical samples to be used in inferential statistical analysis methods, the simple random sampling was used, i.e. there is no subjective prejudgment. The sample size was 150.

### The main goals of CRM in banks

Identifying the specific value of each market segment and customers.

Providing customers with desired values in their desired way to get information.

Market segmentation and improvement of the communication process with target customers.

Increasing revenue from service fees.

Increasing customer satisfaction and loyalty.

Optimizing customer service channels.

Attracting new customers with regard to the experiences gained on previonus customers.

Getting customer feedback and interests in order to optimize the strategy and operational processes (Aghashiri, 2010).

### E-CRM

Changes and developments in the field of information technology (IT) have made institutions and organizations to keep pace with these changes. IT has also affected CRM systems and led to the introduction of e-CRM. In fact it can be said that e-CRM is the child of CRM in which success is achieved in online businesses (Jarrahietal., 2009). Philip Kotler, the renowned marketing expert, considers e-CRM as a part of the e-business concept which describes the use of electronic tools and platforms to conduct organizational affairs and enable institutions to serve their customers faster and more accurately, in a vast time and place range and at a lower cost, and to customize goods and services for the customer. We can also consider e-CRM as tool to attract and retain valuable customers. exclude non-economic cases, combine software, hardware, processes, applications and management commitments, all the required business processes, and create and maintain customer contacts through e-business operations (Elahi and Heidari 2005).

### Challenges in the path of e-CRM

Establishing remote and impersonal relationships through the Internet is a challenge to gain trust. In other words, trust can be considered as a significant obstacle in the path of e-CRM. In addition, increased risk of data manipulation or loss of data can also be other obstacles. The absence of face-to-face relationship and the lack of substantial support play an important role in creating a big challenge in the course of e-CRM implementation. Additionally, in an effort to quickly implement e-CRM, a large number of companies attempt to implement e-CRM before the strategy development.

According to published reports, many companies are dissatisfied with their e-CRM system. Various studies suggest that half of e-CRM projects are expected not to achieve the required performance. A delay in the implementation process can be a sign of weakness in the e-CRM implementation. Resistance by and users is a main possibility in the e-CRM implementation. If the new process is formed without knowledge of organizational situation, it may fail to attract the cooperation of staff and jeopardize the project success. Finally, the cost and time of e-CRM implementation may increase so that the customers get tired. Thus the concurrent attention to customer and technology seem effective in the success of these initiatives (Herring et al. 2009).

# Conceptual and Operational Definition of the Variables of the Research

### **Conceptual Definition**

A) Analytical Component: required infrastructure for creating an electronic banking system is relationship with customers. (Panitan, 2012)

B) Promotion Component: features of a website that would be able to attract the user, in a way that the user would elect it for further observations. (Panitan, 2012)

C) Communicational Component: expanding and reinforcing the relationships, in a way that one-sided relationship would lead to mutual interaction between the user and the bank. (Panitan, 2012)

D) commitmentComponent: turning the user to the customer for purchasing and repeating it. (Panitan, 2012)

E) Deposit: the amount of cash that is being deposited in the banks and the banks would guarantee to return it by the time the customer demands or based on particular circumstances. (Rahmani, 1999)





### **Operational Definition**

A) Analytical Component: the variable of the analytical component would be measured through the index of electronic services with the customers in electronic services features and the quality of the electronic services questionnaires. (Panitan, 2012)

B) Promotion Component: the variable of promotion component is being measured through informing, attractiveness and security of the site in the questionnaire with scales including the appearance of the site, multimedia facilities and commercial aspects of the site. (Panitan, 2012) C) Communicational Component: the variable of communicational component is being measured through the decision making components for depositing and after that in the questionnaire. (Berzhenik,2009)

D) commitment Component: the variable of accountability component is being measured through the decision making components for depositing and after that in the questionnaire. (Berzhenik,2009)

E) Attracting Bank Deposits: the variable of attracting bank deposits is being measured though the components of the degree of service usage in the questionnaire.(Berzhenik,2009)

# Dimensions and components of the research model

CRM is a step by step process which can be promoted discontinued over time. Based on this principle, one can divide effective factors and characteristics in the success of e-CRM in the into four fundamental dimensions. The promotional, communication and commitment dimensions, analytical dimension are four major components of the e-CRM system. Each of these dimensions includescomponents, factors and features.

These dimensions affect each other and reveal the strengths and weaknesses of the whole system. If each of these dimensions affect each other and reveal the strengths and weaknesses of the whole system. If each of these aspects works well the upward cycle will form which will lead permanently to preserving restoring and enhancing relationships with customers.

In the first step a website must attract visitors so that they select it for further visits among the bulk of websites. At the next step the question is how to broaden and strengthen these relationships so that one-way communication leads to mutual interactions between the visitor and the bank. The communication dimension can be a great help to banks at this stage. Due to communication means visitors reach a better understanding of the website and give greater depth and breadth to their relationships with the bank. The customer commitment dimension is the third dimension which can help banks to convert visitors into customers. Since one of the most important signs of commitment is repurchase by the customer the set of tools and features that helps visitors in purchase falls in this dimension so it is called customer commitment. Eventually, the fourth component is the analytical component which is applying technology for processing a large amount of customer data. These data determine factors as industry pressure, general process and the direction of operational methods that a company applies in order to survive in business or achieve competitive advantages. Samples of analytical e-crm includes analytical report, buying and selling system and the process of selling the prediction report

It is obvious that the said dimensions influence each other and weaknesses in each of these stages disrupt the e-CRM process. Therefore to maintain existing customers each characteristic in these dimensions must be continuously strengthened (Panitan, 2012).

### Method and tool for data collection

To gather data for the literature of this research. The library method was used and to collect the required data, the field method was used. A questionnaire was used as the primary information collection tool. The questionnaire was developed by comparing and studying previous research. It contained multiple choice questions based on the five-point Likert scale (very high, high, moderate, low, and very low). It consisted of two parts. The first part was related to personal characteristics of the respondents including gender, age, education, and history. The second part consisted of 60 questions in four dimensions. Questions 1 to 24 were related to the dimension, questions 25 to 37 to the communication dimension, questions 55 to 59 to the analytical dimension, questions 38 to 49 to the commitment dimension and questions 50 to 54 to the factors affecting the attraction of banking resources.

### Validity and Reliability

In structural equation methodology, it is essential to study the validity of the structure at first in order to make sure that selected cursors are accurate enough for measuring their intended structures. In order to achieve this, confirmatory factor analysis (C F A) is being used. In case the factor loading of each cursor with its structure would be more than 0/60, the cursor would be accurate enough for measuring that structure. In structural equation model, in addition to the validity of the structure which is utilized for assessing the significance of the selected cursors for measuring the structures, discriminant validity is intended as well; in other words, it is intended that the cursors of each structure would create an appropriate separation regarding measuring in relation with the other structures of the model. This way, each cursor would only measure its own structure and their combination would be in such a form that they get separated appropriately. Eventually, convergent validity, which is for assessing the subject that each cursor would have the highest correlation with its structure in comparison to the other structures, was used. For assessing this matter, transverse factor loading was applied. In order to assess reliability, combinatorial reliability index has been applied. Reliability means that there has been similar perception among the participants regarding the questions. In structural equation model methodology, combinatorial reliability correlative is being used as well. The amount of 0/70 for each structure indicates its appropriate reliability. The results regarding reliability and

validity of the questionnaire that has been extracted by PLS smart software is presented in the following. In the current research, PLS method has been applied for its advantages over covariance. According to Chin, Marcoline and Newsted (1996) theoretical knowledge is limited in the field of marketing; consequently, most of the researches in this field are being performed with the objective of discovering the relations and assisting formation of new ideas. PLS method could be applied as an appropriate procedure. Also, due to the current research being practical, the mentioned method is more suitable for the objectives of the research.

SmartPLS2 software was used for the measuring model and structural test of the research.

SmartPLS and SPSS software were used for calculations and drawing the models and charts. For analyzing the aggregated data Partial Least Square method was used.

### Inferential Findings of the Research Measurement model test

The mentioned test includes assessing validity and reliability of the structures and the tools of the research. In order to assess reliability of the structures Fernel and Lorcker (1981) propose 3 criteria that include: 1-reliability of each item, 2-combinatorial reliability of each structure and 3-the average of the extracted variance (AVE). Regarding reliability of each items, factor loading of 0/6 and more in each item at factor analysis indicates a well-defined structure.

For assessing combinatorial reliability of each structure Dillon-Goldstein coefficient is being used (PS). Acceptable amounts of PC should be 0/7 or more.

The third cursor of reliability assessment is the average of the extracted variance. (Fernel and Lorcker, 1981) Fernel and Lorcker suggest the amounts of (AVE) 0/5 or more which means that the intended structure explains about 50% or more of the variance of their cursors. (Chin, 1988) considering the suggested criteria for acceptable reliability, it could be deducted that the measuring tools of the informing variables, the appearance of the site, multi-media facilities, aspects and commercial tools of the site, attractiveness and the promoting component hold an appropriate reliability. All of the facto loadings are higher than 0/60. Combinatorial reliability and Cronbach Alpha of all structures are higher than 0/70 and the average of the extracted variance of all the structures are more than 0/50. For assessing the validity or divergent validity of the structures Chin (1988) proposes two criteria that the items of a structure should have the highest amount of factor loading on their structure. It means that they should have lower cross-sectional loading on the other structures. Gifen and Shtrab (2005) suggest that loading factor of each item on its related structure should be at least 0/1 higher than the loading factor of that same item on the other structures. The second criterion is that square root of AVE of a structure should be more than relation of that structure with the other ones. This indicates that the relation of that structure with its cursors is more than its relation with the other ones. All of the items have the most loading factor on their structure and the least space between the loading factors related to their own structure is higher than 0/1 which indicates that the structures of the research hold appropriate divergent validity.

Considering the fact that the square root of the average of the extracted variance of all of the variables in the research are higher than their relation with other variables, the second criteria, that is assessing divergent validity of the research variables, is accountable. Considering the above findings it can generally be stated that the research tools hold appropriate validity and reliability and structural model test of the research could be assessed.

### **Research Hypotheses**

This research has a main hypothesis and 4 sub-hypotheses.

### The main research hypothesis

-Implementation of e-CRM is effective in attracting bank deposits.

### **Research sub-hypotheses**

-Implementation of the analytical dimension of e-CRM is effective in attracting bank deposits.

-Implementation of the communication dimension of e-CRM is effective in attracting bank deposits.

-Implementation of the commitment dimension of e-CRM is effective in attracting bank deposits.

- Implementation of the Promotion dimension of e-CRM is effective in attracting bank deposits.

### **Testing hypotheses**

Using Pls the final model and hypotheses were analyzed

# Structural Model Test or Assessing the Assumptions of the Research

The assumptions of the research had been assessed in the form of structural equations modeling applying PLS method.

### Rsults

### The main hypothesis 1: Implementation of e-CRM is effective in attracting bank deposits.

Given the PLS output it can be said that based on the statistical sample the implementation of the analytical dimension of e-CRM is effective in attracting bank deposits. The coefficient of this effect was estimated very strong (93%). The results of testing this hypothesis are consistent with those of Shahroodi,Ramuty,Sahuti and

Rootmn (Shahroodi,2012 Rootman,2006).

### Sub-hypothesis 1: Implementation of the dimensiondimension of e-CRM is effective in attracting bank deposits.

Given the PLS output, it can be said that based on the statistical sample, the implementation of the analytical dimension of e-CRM is effective in attracting bank attracting bank deposits. The coefficient of this effect was estimated very relatively weak (25%). The results of testing this hypothesis are consistent with those of Sendai and Reiman and inconsistent with Ramuty(Reiman,2009,).

### Sub-hypothesis 2: Implementation of the promotional dimension of e-CRM is effective in attracting bank deposits.

Given the PLS output, it can be said that based on the statistical sample, the implementation of the promotional dimension of e-CRM is effective in attracting bank deposits. The coefficient of this effect was estimated 40%. The results of testing this hypothesis are consistent with those of Mehrabi,Reiman, and Kaltman, and inconsistent with Ramuty (Mehrabi 2009,Kaltman, 2011;Reiman, 2009,Rootman, 2006).

### Sub-hypothesis 3: Implementation of the communication dimension of e-CRM is effective in attracting bank deposits.

Given the PLS output it can be said that based on the statistical sample, the implementation of the communication dimension of e-CRM is effective on attracting bank deposits. The coefficient of this effect was estimated weak (16%). The results of testing this hypothesis are consistent with those of Kalantary and inconsistent with Safari Sharafshah and GhanbaryBarzian (Kalantary, 2010,GhanbaryBarzian, 2007).

# Sub-hypothesis 4: Implementation of the commitment dimension of e-CRM is effective in attracting bank deposits.

Given the PLS output it can be said that based on the statistical sample, the implementation of the commitment dimension of e-CRM is effective in attracting bank deposits. The coefficient of this effect was estimated relatively strong (59%). The results of testing this hypothesis are consistent with those of Kusum and Chang Shang (Chang Shang,2012).

### Conclusion

it was found that the e-CRM implementation and the commitment, promotional and analytical dimensions are effective in attracting bank deposits according to the statistical sample.

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