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Analysis and Ranking the Obstacles and Challenges in performing and reforming core banking based on Ferguson Model (Case Study: Agricultural Bank)

Elnaz entezar*

Dept.Economics, Science and Research Branch, Islamic Azad Universit, West Azarbaijan, Behashti Ave., Urumia, Iran

Abstract

The third millennium is the era for increasing changes in the organizational atmosphere, and competition to exist, while organizations are being diminished by each other. Meanwhile, organizations necessitate the variety in their services according to customer demands and through choosing different strategies in order to survive in this competitive world. Banks, as effective financial entities in money exchange world, are in a great competition to attract new customers and keep them using new technologies. So banks are in competition to absorb new clients through comprehensive packages. The package which is currently being heard, is called the "*concentrated banking package*", which is giving round-the-clock services to the customers by fulfilling their spontaneous demands. This research has been carried out to find the most common obstacles of core banking in Agricultural Bank, so the study was started after a random sampling from a suitable level of people. It is worth mentioning that Ferguson's theory is considered as the visual frame for this study. And the descriptive statistics and calculating the mean of the society (using SPSS software) were used in analyzing the data. The most common diagnosed obstacles according to the present diction are organizational, management, financial, and technical-technological ones. According to investigations, it is inferred that the organizational factors are the initial and most effective factor, and after that, technological, management, and finally financial factors are respectively effective in performing and reforming core banking.

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* Corresponding author. Tel.: +98-914-345-0204 ; fax: +98-441-235-1706.

E-mail address: entezar_elnaz@yahoo.com

1. Introduction

The developing trend in core banking, information technology development, and e-commerce have been so world-widely accelerated that taking these aspects of technology and using them to develop core banking and electronic money transfer in the country has become an inevitable fact. This immense view now has been taken into consideration by the banking industry in the country, and all the banks have come to this conclusion that in the present competitive world, in which we witness a new phenomenon in the banking industry, using an integrated banking system seems incontrovertible in order to keep their position and their clients. In fact, establishing this integrated banking system is not a choice, but a must.

Studies have shown that banks can unprecedentedly increase their benefits through increasing their top ranking clients and making them fully satisfied with the services granted to them (Kolodinsky and et al,2004).

Nowadays, most banks face a completely dynamic environment, and all banks, whether big or small, prioritize attracting and keeping clients in their agendas, according to quick changes in the present competitive conditions. On the other hand, clients have more chances to compare services, and client judgment about a bank is based on the ability of the bank to help its customers solve their problems. Security, fast money transfer, ease in use, reliability, and privacy issues are of the most important factors for clients in selecting a bank (Sylvie Laforet and et al, 2005; Serkan Akinci and et al, 2004).

2. Stating the issue

The technologies of the recent decade, which are based on knowledge management, with an unpredictable speed, have affected the organizations, and caused new products in the banking system, and also changed the trend of banking services. Altering paper money to electronic money, and changing tangible services to intangible ones through telecommunications and the Internet, are assumed to be the most important changes in this area. New organizations are placed in a competitive world, which is due to environmental, organizational, and technological changes. Thus, sufficient implementing of this technology seems to be an urgent factor to survive in this competitive world.

In Iran, this fact has been felt, and therefore functions like using ATM systems, WAN, and LAN networks, and giving services to clients by the Internet have been started. However, there are a lot of problems effecting the establishment of a core banking system in Iran, which have been classified as follow: technical, management-organizational, organizational-cultural, social, political, juridical-legal, and economical problems. So, more attention is being granted for the executive potentials in order to reform the banking system in the country.

3. The Importance and Necessity of the Survey

The most important aspect of the core banking is the quick connection with all the clients, and therefore giving services to them according to individual needs. Now , that on the one

hand, the banking system in the country has proliferated electronic devices in the banks, and is decisive to perform the relate laws, and on the other hand, the failure of on time banking services is a serious obstacle in developing banking servicing and as a result, in economic development of the country, it is necessary to investigate the obstacles and challenges in performing and reforming core banking based on Ferguson Model in the agricultural bank.

4. Objectives

One of the uses of information technology is in the area of core banking, that using it has a number of advantages for the banks and the customers. But its establishment in our country faces numerous problems and challenges due to insufficient conditions and prerequisites. It seems that diagnosing these defects and removing them can do a great help in developing and reforming core banking system in our country.

5. Survey variables

In the present study, the obstacles and problems in performing and reforming core banking in Agricultural bank, is the independent variable; and management, organizational, technological, and financial problems according to visual frame, are the dependent variables.²

6. The Conceptual Model of the Survey

The investigation and review of the present concepts and diction in the area of establishing core banking, show that the factors effecting the development of core banking can be classified in two groups of soft, and hard factors. The soft factors are the ones for which the evaluation is relatively difficult and focus on long period of time (H.C Lau and et al, 2001). (W.G Lewis and et al, 2006).

Culture, awareness, work and individual reactions, trust, resistance, flexibility to change, (David Miller and et al, 2004), education, accordance, security, decision making, organizing, and so forth can be mentioned as soft factors (W.G Lewis and et al, 2006).

In this survey, the soft barriers are categorized in form of organizational and management problems. But hard factors are more of a systematic pattern and play a supportive role to functioning soft factors (W.G Lewis and et al, 2006). Technical and financial backgrounds, providing the network development expenses (Ian Smith and et al, 2005), investment, providing the related software and hardware, and et cetera, are mentioned as hard factors (Klaus and et al, 2007).

All investigative studies are based on a conceptual frame, in which the considered variables clarify the relations between them (Edwards and et al, 2000, p. 23). Approved by the review

² -These factors are stated in the appendix

of the case diction, it can be said that four factors, which are presented in the figure in the appendix B, are effective in developing and reforming core banking.

7. Method

The present study is of a descriptive-analytical kind, that is performed in a process method. First, the researcher has designed a questionnaire, that according to the variables of the study, has to columns adjacent to each other about sufficient conditions (reforming and developing core banking system), and the present conditions (obstacles of core banking system), and has asked the experts to analyze every component of the main variables of the study in case of the present conditions and the sufficient conditions. Ultimately, the experts have been asked to evaluate the gap between the present and the sufficient conditions, and rank the factors and limitations in the form of study variables, and recommend ways to reform and develop core banking system.

8. Society and Statistical Sample

In this study, a community of core banking experts in agricultural bank has been used. These people include IT and core banking managers and experts in agricultural bank, who are directly or indirectly related to the concepts of core banking system.

9. Evaluation Scale of the Study

The questionnaire of this study has been developed on the basis of "Likert" spectrum. As mentioned above, four organizational, technological, management, and financial dimensions are the barriers of performing and reforming core banking system in agricultural bank. To investigate and prioritize these obstacles, four hypotheses below have been used. First hypothesis: Organizational factors are the obstacles effecting performing and development of core banking. Second hypothesis: Technological factors are the obstacles effecting performing and development of core banking. Third hypothesis: Managing factors are the obstacles effecting performing and development of core banking. Forth hypothesis: Financial factors are the obstacles effecting performing and development of core banking.

9-1 Conclusion

As it was noticed, all the hypotheses of the survey were approved. In the table below, the summary of the results of the survey is shown.

Chart 1: Comparison between the sufficient and the present conditions

The difference between the sufficient and present conditions	Mean of the present condition	Mean of the sufficient condition	Hypotheses
2.02	2.64	4.59	First Hypothesis (technological dimension)
1.97	2.56	4.54	second hypothesis (management dimension)
2.19	2.28	4.48	Third hypothesis (organizational dimension)
1.59	2.73	4.32	forth hypothesis (financial dimension)

Chart 2: Ranking the factors analyzed

The quality of the barrier in developing core banking	The importance of the barriers analyzed in the survey	The difference between the sufficient and present conditions	The factor analyzed in the survey as a barrier
Above average	First degree	2.19	Organizational factors
Above average	Second degree	2.02	Technological factors
Below average	Third degree	1.97	Management factors
Above average	Fourth degree	1.59	Financial factors

9-2 Suggestions

On the basis of the findings of this survey, managing factors, effective on reforming and developing core banking, compared to the other factors analyzed in agricultural bank, ranked the third position. So, following the tips below by the managers of the organization is vital:

- In managing aspect, the top managers of the organization have to have creative and clever insight in this case, and must be able to move in a certain direction when risk analysis is needed in order to make sound decisions and choose suitable solutions, thus it is recommended to establish training classes for the managers about the so-called topics, and to take advantage of experienced consultants in this area.
- Frequent manager changes would lead in dysfunction in the process of projects, so it is recommended to work harder to select a person to occupy the manager position in an organization.
- As we all know, core banking is a new aspect, and in every organization there is resistance regarding changes. In order to succeed in reforming and developing core banking, unanimous agreement and cooperation of the related managers in core banking system should be claimed. Having this goal, it is recommended to increase the managers' knowledge and ability in this area, through holding seminars and

training classes. According to the findings of this survey, organizational barriers are the most important ones, thus an organization must take it seriously and to do this, following the tips below is important:

According to the fact that the most weaknesses in organizational factors are related to the accordance between decision making system and the executives, some meetings with the presence of the organizational managers and the executives are recommended, in order to clarify the objective of the organization in the case of core banking, in a way that everyone come to a similar insight.

- In order to sufficiently and completely perform the core banking, the functional process should be clarified, because the more we approach the standards and the indices, we would be more successful establishing the sketch. To do this, the study and development section of the organization can issue the standards and the indices.

According to the findings of the survey, technological barriers are of the second rank in importance, after organizational factors, thus to remove these obstacles, the actions below are suggested:

- The main weak point of the organization related to technology is related to the security if the atmosphere to transmit information in core banking system. In order to provide the security to prevent unauthorized access to the network, sufficient instruments and technologies are crucial (including: network, hardware, and software). On the other hand, the organization should have the ability to provide services and backup from the systems of core banking, so it is recommended to allocate more facilities to this section.
- The other weak point in this section is the knowledge and awareness of the clients about the services of this system and the way to use the related technology. So it is recommended that the organization inform the clients of the system and the suitable way to use it. It is assumed that to do this, bank clerks in the branches play a very important role, because they have a direct interaction with the clients. In addition, a representative in every branch is recommended.
- Of the other weak points in this section, we can mention the lack of experts in the area of core banking, thus it is necessary to start developing the quantity and quality of experts. Of course we can overcome this problem by retraining the staff and attracting and training new employees.

According to the findings of this survey, among the studied factors, financial factors have the least effect on the core banking system, but still there is a long way to go to obtain the sufficient and suitable condition of this kind of banking. To overcome this problem the actions below are taken:

- Providing financial expenses in the basic system and core banking software, hardware, and cyber background, which, in fact, is a kind of capital for the bank.
- Giving special privileges to customers compared to other banks, and taking customer satisfaction, and making a positive impression in clients about using core banking system, and eliminating their doubt about using modern banking services.
- Putting up more ATMs in the branches.

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Appendix A:

Managing factors are: failure to support the manager, failure of strategic management and long-term planning, dysfunction in managing information technology, frequent changes of managers and decision makers, no clarity in policy, insufficient management fulfillment, lack of generative correlations, manager's view about risk, and risk expenses.

Organizational factors are: frequent removal of managers, different views in decision making centers, lack of a suitable structure for information technology, insufficient present trends, lack of correlations between the different sections of the organization.

Financial factors are: expenses to develop satellite and computer networks, expenses of web designing and connection, expenses of investments in telecommunication area, long-term turnover and intangible turnover, expenses of updating satellite and computer networks.

Technological factors are: insufficient band width, insufficient telecommunication background, lack of security in the network, lack of customer knowledge about the services

of core banking system, lack of domestic expert and low knowledge of the experts, lack of wide software and hardware facilities.

Appendix B:

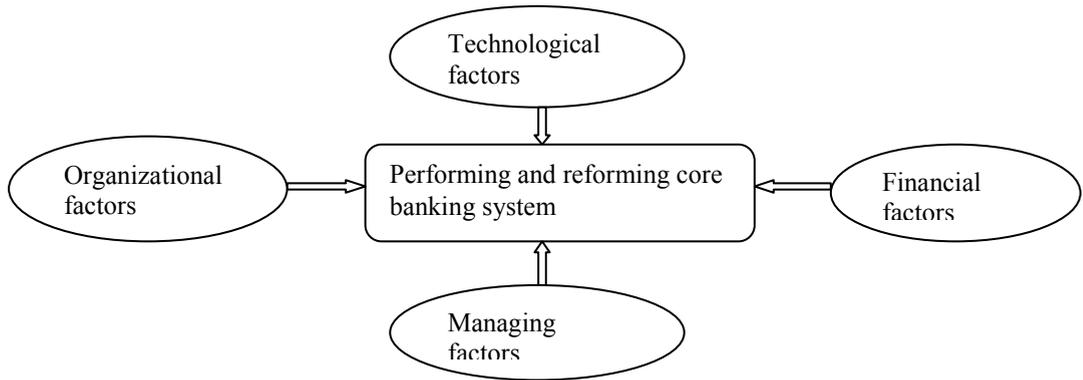


Fig. 1 conceptual model of the survey