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Managerial and Security - Financial Factors of Private Banks Success in providing e-Banking Services

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Abstract

The increasing developments of information and communication technologies develop of various industries such as banking industry. The dramatic developments happen in this industry with the advent of information technology and it provide the development of other businesses with a variety of electronic financial transactions. Managerial and security - financial factors are keys success factors of the electronic banking services development which has been directly deal with them in this research. The issue is intended for private banks and the case study are accomplished with help of 113 top and middle managers available in Ghavamin banks in the country. To achieve the main goal of the study, at first previous published studies have been reviewed and factors of Private Banks in offering electronic banking services derived and the main variables of model with approach of exploratory factor analysis defined and a model in order to identify the key success factors of private banks in offering electronic banking services, explorated and depicted. This model, set the key factors in the 3 major categories of financial factors, managerial factors (macro and micro and qualitative - Security Factors of the System. Also, within each category, the most important items in terms of correlation with the success of electronic banking services has determined and finally a framework in order to solve the issue in e-banking industry is presented.

Keywords: Managerial factors, Security - financial factors, Services, E-banking Exploratory Factor Analysis.

1. Introduction

The growing of information technology and Internet-based electronic systems and their connection with the main body of the banking business is visible. Today, electronic banking and their unique services is non-removable in the community. The role of scientific and applied research seems more urgent than ever in modern electronic banking services, According to importance of their growing trend. Because the electronic banking is one of the key to implement, develop and facilitate the electronic commerce in the country. In this field,

authoritative studies was conducted such as research by Nikghadam (2013), Basias & Themistocleous, (2013), Sohrabi et al. (2013) and Cabanillas et al. (2013) which is represents the growing importance of problem solving in electronic banking. But the main point is that most studies in the field of electronic banking are related to the admission process or appropriate models of electronic banking acceptance in the country or evaluating the quality of e- banking services and its impact on customer satisfaction. There is vacuum in some fields such as infrastructure and identify key success factors or barriers banks in providing electronic services.

So this research with exploratory approach aims to identify managerial and security - financial factors of Iran's private banks success in providing electronic banking services.

2. Theoretical Literature and Previous Research

2.1. The History of Electronic Banking

Impressive development of information and communication technologies and its expansion of money markets facilitate the affairs for bank customers and transform the current banking approaches. Technology belonging to banks and their exchanges were changed with customers, with the advance of information and communication technology (ICT) (Amadeh & Jafarpour, 2009). Amadeh & Jafarpour divided these developments into four periods by the Ministry of Commerce (2005). In every period, new technology and electronic banking provides the possibility of increasing speed, quality, accuracy, cost, and the diversity of services.

Table 1:
Periods of Development and Evolution of Electronic Banking
(Source: Amadeh & Jafarpour, 2009)

Period	**Periods of development and evolution of electronic banking**	**Period characteristics**
First	Automation of behind the counter	Prevalent in the 1960s, removing the card from the branch offices, sending daily circulation of accounts at the end of each day to central computer, the starting point for computer applications in banking, Usage: recording documents and converting paper documents into computer files.
Second	Automation of front the counter	Starting in the 1970s, branch employees access to current accounts, continuous information transferring through the use of telecommunication lines and mainframe computers, Banks' usage of telecommunication networks in the public company's existing.
Third	Customers connecting to the Accounts	Starting in the middle of 1980s, customer access to personal accounts, by phone, (ATM), a smart card or personal computer, electronic funds transfers, development of customer communication system with their accounts

Forth	System integration and linking customers to all banking operations	Real savings in manpower, creating a fully electronic and intangible money, all banking services are with electronic

2.2. Electronic Banking

E-banking phenomenon has been considered as one of the achievements of e-commerce. It plays a major role in e-commerce with the growing of e-commerce in the world and regarding the needs of business to easy, fast and accurate banking operations to transfer financial resources, electronic banking. Electronic banking is a direct provision of banking services to customers through communication channels (Bauer & Hein, 2006). In fact electronic banking means an optimal integration of all activities of a bank through the use of modern information technology, based on bank process consistent with structure of other banks that may provide all the customers' services (Wendy et al. 2005).

2.3. Services and Benefits of Electronic Banking

E-banking has many benefits such as increasing the customers and decreasing the bank dealings costs. In addition, banks can provide services with greater performance and fewer costs and pay attention to maintain and increase the unlimited market share in terms of location and focus on new distribution channels (Harris, 2002). The most important benefits of e-banking services can be summarized in Table 2.

Table 2:
Summary of the Most Important Benefits of E-Banking Services
(Sources: Harris, L.,. 2002, Foley, P., . 2000, Marianne, A., 2004, Gorilas, S., 2003)

Row	Electronic banking services	Benefits of electronic banking
1	Access to account information	Compete brands
2	Account inquiries and transactions	Improve the relations management
3	Transfer funds between accounts	Provide broad and diverse services
4	Deposit	Focus on revenue growth and cost
5	Currency conversion	Reduce transaction costs
6	Payment of telephone bills, water and energy and other bills	Existence of close interbank relationships
7	Buy and sell shares	Reduce environmental pollution
8	Buy and sell goods and services	Increase and enhance the customer retention and loyalty
9	Buy and sell currency	Increase the efficiency of service
10	Documentary credits services	Reduce service costs
11		Increase the unlimited market share in terms of location
12		Focus on new distribution channels

2.4. Background research

Few studies have been done to identify key success factors of banks to provide services, some of them are as follow. Klaus et al in their research identified the factors affecting the development of e- banking and have divided them into two categories: hard and soft (12). Other research is defined critical success factors in e-banking such as factors of user-friendly, website security, supported by senior management, rapid response to customer, availability of services at all times, fast delivery services, personalization services and etc. Hashemi (2011)

introduces legal support, ongoing training banking issues to employees, informing, build trust and develop a culture of using electronic banking, using specialist manpower and the use of equipment, appropriate and updated software and communication platform, the introduction and informing of e-banking products and services to the public and internal and external support for the process of electronic banking services as success factors of banks. In another study, network security, Trust customers to use electronic banking services, quality website design and delivery of services and information about them was introduced as factors affecting the success and development of electronic banking under the general title "Quality of electronic banking services." (16.15).

In another study, variables such as the usefulness use of the system, the ease of use of systems, security systems, the quality of internet connectivity and providing enough information about online services which is provided by banks were introduced as determining key variables of quality of electronic banking services (17). Another research has introduced better access to services, better prices and the protection of privacy as the first and most important factor in the use of electronic banking (18).

3. Research Objectives

- Identifying and examining the Managerial and Security - financial factors of the country's private banks in provision of electronic banking services.
- Determining the extent to which each of Managerial and Security - financial factors has effects in the success of country's private banks in proving the electronic banking services
- Identifying and assessing the significant correlation between known factors

4. Research Methodology

This research applied research and cross-sectional in terms of objective and in terms of performance, its approach is descriptive and exploratory. This research, first with a review of the theoretical literature, studied previous and valid and internal and external studies in the field of electronic banking and effective factors on their success and then it identified Managerial and Security - financial factors of country's private banks in proving electronic banking services in a comprehensive method and it extracted from previous studies. Then the questionnaire has been designed based on identified factors. The questionnaire was distributed among the available specialists of banking affaires related to electronic banking and aims to explore and identify key success factors in country's private banks in provision of electronic banking services. The questionnaire was consisted of 69 items (questions) which are designed by using the theoretical literature and previous research in the field of the key success factors in provision of electronic services. The reliability of the questionnaire was determined 0.975 by using Cronbach's alpha, which is an appropriate amount and Content validity was also confirmed by supervisor and advisor and some experts in the field of banking. After collecting the questionnaires, a conceptual model is provided by using the exploratory factor analysis and with considering the research objectives.

5. Research Population, Sample Size and Sampling Method

Population of the study is included 150 people which they were all managers and assistants of Ghavamin Bank who is making decision for the ATM. Morgan table was used to calculate the sample size and according to the number of population, 108 people were selected by available non-probability sampling. In order to ensure the return of the questionnaires, 130

questionnaires were distributed among them and finally, 113 questionnaires were correctly returned and completed.

6. Research findings

In this section all the factors are analyzed by using factor analysis. First, Table adequacy model is given which consists of KMO index, Bartlett index value and the probability value of this index.

Table 5.
KMO and Bartlett test results of the correlation matrix

Item	Value
KMO index	**.799**
Bartlett's Test	**6058.908**
Sig.	**.000**

Based on the results of KMO test, which is equal to 0.799, research data are reducible to number of infrastructure factors. Also result of Bartlett test equals to 6058.908 which is significant in error smaller than 0.01, it shows that the correlation matrix between the items is not the unit and the identity matrix. This means that on the one hand there is a high correlation between items within each factor and other hand there is no correlation between the items of one factor and other items. Furthermore, the rotation matrix of factors determines which item is related to determine factors.Based on the review of the Background research, the conceptual model of research was formed which can be seen in Figure 1.

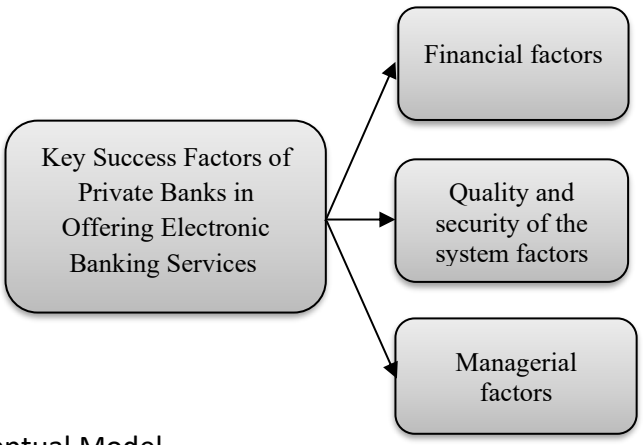

Figure 1. Conceptual Model

Items associated with each of the above factors, are given in the following table.

Table 6. Rotation matrix of all the critical success factors of private banks in Providing electronic services

Items	Factors			source
	Financial factors	Managerial factors	security factors	
To supply the cost of investment in infrastructure and telecommunications platforms	.522	.175	-.030	[1]
To supply Adequate funding for the cost of connecting to the Web	.513	.245	-.107	[1]
Allocation of costs for updating and development of computer and satellite networks of the Bank	.511	.024	-.186	[1]
Favorable costs of providing e-banking services to customers	.467	.040	-.108	[1]
Training of Customer	.315	.548	.022	[13]
Training of Senior managers and assistants	.191	.509	-.230	[13]
Training of bank employees	.175	.595	-.079	[13]
Increase transparency of management decisions and policies	.443	.590	-.022	[12] [13]
Control of perceived risk in e-banking system	.234	.747	.198	[12] [13]
Existence the Strategic thinking at the macro level bank management	.338	.617	.290	[12] [13]
Support and willingness of senior managers in the bank toward e-banking development	.288	.695	.060	[13]
Strengthen the Cross-sectional coordination	-.040	.605	.065	[1] [12]
Improving the organizing of ICT management	.008	.617	.220	[13]
Utilization of Empowerment and risk managers in the implementation of e-banking	.032	.638	.258	[12] [13]
Stability of capable managers with relevant experience in the job and the lack of movement in the short term	.281	.640	.064	[12] [13]
Government focused on providing and developing the necessary infrastructure for e-banking	.268	.544	.028	[12] [13]
Supporting of organizations working in the field of e- banking services	.143	.659	.077	[12] [13]
Development of increased competition between banks in the provision of electronic services	.252	.610	-.031	[1] [12]

Particular emphasis and supports by government on strengthening e-banking	.279	.580	.165	[12] [13]
Using IT and ICT and e-banking services by Government and government and private agencies	.350	.482	.180	[12] [13]
Reinforcement the sense of creating useful and pleasant experience for the customer after receiving the service	.237	.487	.303	[13]
Enhance the reputation and public image of banks in society	.239	.628	.332	[13]
Reputation and positive history of bank in providing the previous services	.442	.520	.297	[13]
Existence of multiple channels of providing services	.328	.237	.617	[13]
The variety and range of electronic banking services	.291	.121	.729	[1][18] [19][21][23]
attractiveness of e-banking providing services Systems	.305	.102	.663	[1][19][20][21][22][23]
Responsibility and empathy officials support e-banking services	.100	.383	.648	[18][19][20]
Transparent and unambiguous way of providing service	.174	.265	.623	[22][23][25]
Development of trust and confidence of e-banking services	.247	.245	.536	[18][19][20]
Development of e-banking security services	.188	.070	.542	[18][20][24]
Reinforcement and quality of transactions and providing service speed	.193	.008	.491	[19][20][21][22][23][24]
Quality and accuracy of the available information	.180	.283	.433	[18][19][20][21][24]
Development of new markets and offering new and special services in e-banking	.231	.087	.632	[18][19][20][21][22]
Quality of web design and other service provider equipment of e-banking	.032	.326	.587	[1][2][19][20][23]
Procedural Consistency of service provision on e-banking system	.119	.088	.711	[23][24][25]
Create a safe space for user and preserve for people's privacy	.220	.208	.463	[1][2][18][19][20]
Strengthen the reliability of the system	.005	.406	.462	[1][2][18][19][20][22][23][24]
Improve quality of accountability and support of system	.136	.061	.488	[1][18][19][20][21][23]
Easy use of systems and Web of getting the services	.179	.199	.423	[22][23][24][25]
Easy access to existing facilities of getting the services	.178	.166	.508	[1][18][19][20][21][23]

User-friendly systems and devices for e-services	.136	.133	.747	[19][20][21]
Appropriate behavior and customer-oriented of staff and behavior of management with them	.354	.149	.680	[2][19][20][21][23][24][25]

7. Discussions and Conclusions

This research aims to identify and evaluate the key success factors of the country's private banks in proving the electronic banking services. Exploratory factor analysis was used to achieve this objective and to provide a comprehensive model. At first, after a review of scientific research the most important factors were identified for the success of private banks in provision of e-banking services. Then, according to the theoretical literature and expert opinion and also by using of exploratory factor analysis, Factors were divided into 3 categories: financial factors, Manegerial and security. The influence degree of the factors contributing to the success of private banks offering e-banking is different. So by using exploratory factor analysis, factor loadings (correlations between items and categories) of all items were also identified. In this section, the results of research were separately analyzed.
The results of a survey of financial factors by exploratory factor analysis shows that factor of providing the costs of investment in infrastructure and telecommunications platforms with a factor loading of 0.552 has the maximum factor loading and also desired credit for the costs of connecting to the web with a factor loading of 0.513, Allocation of costs for upgrading and development of satellite and computer in the bank with a factor loading of 0.511 and appropriate and desired cost of provision of electronic banking services to customers with a factor loading of .467 are ranked second, third and fourth. The results of a survey of managerial factors (micro and macro) by exploratory factor analysis shows that from opinion of experts, the factor of controlling the perceived risk in the electronic banking system with a factor loading of 0.747 has the maximum factor loading and then tendency and support of the bank's senior managers to development of e-banking is in the second place with a factor loading of 0.695 and support of active organizations in the field of electronic banking services is in the third place with a factor of 0.659 loading. The results of a survey of quality and security of the system factors by exploratory factor analysis shows that from opinion of experts, the factor of user-friendly systems and tools to provide electronic services with a factor loading of 0.747 has the maximum factor loading and is in the first place and then the diversity and development range of electronic banking services is in the second place with a factor loading of 0.729, procedural stability of electronic banking services is in the third place with a factor loading of 0.711. As these values are positive, it can be concluded that strengthening of every 3 factor can lead to the success of private banks in the provision of electronic services to customers. In this context and according to the results, Measure and overall fit of the proposed model by using structural equation techniques and AMOS software, assess the current situation Ghavamin Bank and other private banks with the help of this model and identify the current status are among of the topics that will be offered to future researchers.

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