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## **ROLE OF INFORMATION SYSTEMS ON COSTUMER VALIDATION OF ANSAR BANK CLIENTS IN WESTERN AZERBAIJAN PROVINCE**

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### **ABSTRACT**

The purpose of this study is to examine the role of information systems on validation of Ansar bank customers in West Azerbaijan province. The research method is Survey-functional and filed related. Statistical population includes staffs and customers of Ansar bank in West Azarbayejan province. Research group for this study were 350 people of which according to Cochran's formula 184 samples were selected for sampling. Kolmogorov-Smirnov test & Spearman correlation test were used to data analysis. Results showed that there was a significant relationship between implementation of information systems and the amount of loan applicant's collateral, the loan applicant's education, the credit history of the loan applicants and loan applicants' job in Ansar Bank in West Azerbaijan province.

**Keywords:** *Ansar Bank, Customers, West Azarbayejan Province, Loan Applicants Collateral, Credit History*

### **INTRODUCTION**

Development of financial markets and institutions and consequently, different products in this area has led to process of funding to be one of the country's economic priorities. The developed countries have been able to provide the necessary infrastructure in these areas; however, the developing countries are facing a long way, so that World Bank's statistics and analysis show that today less than 25% of people in developing countries have access to formal financial services. This ratio is over 90% in developed markets. Banks play a key role in process of development of financial services, while banks devote their resources primarily to large companies and since the provision of services to small businesses and individuals, is very costly, these sectors are under less consideration. Designing and practicing assessing reliability and validity of the system fairly plays a key role in all sectors as a very important factor in the development of financial services.

The more the process of granting credit facilities in the community is comprehensive and systematic, financial sectors will have better and more reliable access to financial resources, and will be able to better use these resources. If coincided with the development of economic sectors and increase in need for financial resources, we don't witness establishment of appropriate systems related to accelerating and facilitating lending processes, creditors will face many problems related to obtaining knowledge about credit capacity of potential customers. Banks in order to identify the needs and behavior of customers in granting credit facilities should know the characteristics of their customers. This leads to a reduction of risks, including credit risk of the bank. Numerous researches and applications in the field of validation have been done by banks to identify good and bad customers. The Judging validity method due to error and time-consuming problem were gradually replaced by parametric and non-parametric methods. Information systems and management information systems are dedicated to the study of information systems in an organization. Information system is a system consists of a network of communication channels that are used in the organization. Components of information systems are responsible for data collection and manipulation. These components include hardware, software, people, communication, and data. Activities that are performed in the field include: data entry, data processing, data storage and data output, such as management reports. The data required by the system are collected and stored through database providers and other databases such as Post Company, civil registration and the Judiciary. After processing, this information as a credit report can be provided to users and customers. After expressing the contents the main research question was developed, so the purpose of this study is to: Is there a

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relation between the quality of information systems and customer validation in Ansar Bank of West Azerbaijan province?

**Research Hypotheses**

*The Main Hypothesis*

There was a significant relationship between the implementation of information systems and validation of clients in Ansar Bank of West Azerbaijan province.

*Alternative Hypothesis*

1. There was a significant relationship between the implementation of information systems and the amount of loan applicant’s collateral in Ansar Bank in West Azerbaijan province.
2. There was a significant relationship between the implementation of the information system and the loan applicant's education in Ansar Bank of West Azerbaijan province.
3. There was a significant relationship between the implementation of the information system and the credit history of the loan applicants in West Azerbaijan Province’s Ansar Bank.
4. There is a significant relationship between the implementation of information systems and loan applicants’ job.

**MATERIALS AND METHODS**

The research method is Survey-functional and filed related. Research group for this study were 350 people of education loan costumers of Ansar Bank of W.Azerbaijan in the 1<sup>st</sup> semiannual of year 93. In this study, for authentication variable, since the number of samples in branches was 350, According to Cochran's formula 184 samples were selected for sampling. 70 customers with good account (which sample of 50 specimens for training and 20 for testing), 70 customer with medium credit risk (the sample 40 for training and 30 for testing) and 44 customer with bad credit risk (of which 30 samples each for training and 14 for testing each) were selected. Also to determine the number of sampled data system variables, using the Cochran formula in 5% error level 136 people were obtained. The No. of samples were selected using stratified random sampling technique, this way first Ansar bank branches in the province were identified , then some of them were selected as samples, Then questionnaires randomly were distributed among a number of selected bank employees. The validity of this questionnaire was approved by the professor of public management and reliability was calculated with Cronbach's alpha (0.91). Also to analyze the data, descriptive statistical methods (such as frequency, percentage, mean and standard deviation) and inferential statistics for hypothesis testing and statistical methods such as (Kolmogorov-Smirnov test, Spearman correlation test) were used.

**RESULTS AND DISCUSSION**

The results show that the sample consisted of males and females, 73.4% and 26.6%, respectively. Also, 27.7% of the sample has the associate's degree and others have college degree, bachelor's degree, master's degree and Ph.D. whit 13%, 26.6%, 22.4% and 10.3% respectively. In terms of work experience, 33.4% of the sample under 5 years, 28.4 % between 5-10 years, 20.4% between 15-10 years, 10.6% between 20-15 years, and 7.2% up to 20 years had experience.

**Inferential Findings**

Kolmogorov-Smirnov test and Spearman correlation test were used in this section to discuss testing research hypotheses. Before implementation of the Spearman test, nonparametric Kolmogorov-Smirnov test were performed to determine normality or non-normality of data. . The results of this test showed the data abnormality in the variables studied (Table 1).

**Table 1: Kolmogorov-Smirnoff test for research variables**

Test result	Significant level	Statistics Kolmogorov - Smirnov Z	Variable
non-normal	0.000	2.863	Quality Information System
non-normal	0.003	1.865	The applicant's credit history
non-normal	0.000	1.632	The amount of bail

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According to Table 1, since level of significance of variables under study was the smaller than 0.05, then all variables is abnormal, so the Spearman test was used for data analysis.

*Analysis of the Research Hypotheses*

**Main hypothesis testing: There was a significant relationship between the implementation of information systems and validation of clients in Ansar Bank of West Azerbaijan province.**

Since the implementation of information systems on validating customers do not have bivariate normal distribution, non-parametric test was used to test Main hypothesis. . Spearman correlation test was used to examine the significant relationship between two variables, which the test results are summarized in Table 2.

**Table 2: Spearman correlation test results**

Sig	Correlation coefficient	Count	Variable
0.000	0.45	136	Information system implementation Customer validation

According to Table 2, because level of significance is smaller than 0.05 ( $P = 0.000 < 0.05$ ) relationship between two variables is significant, and the hypothesis of non-correlation and zero correlation coefficient of 95% (confidence level) of 5% is rejected. Therefore implementation of data systems on validation of clients has a significant positive linear relationship.

**First sub-hypothesis testing: There was a significant relationship between the implementation of information systems and the amount of loan applicants collateral in Ansar Bank in West Azerbaijan province.**

Since the implementation of the information system do not have bivariate normal distribution with the collateral loan applicants, Non-parametric test used to test Main hypothesis. Spearman correlation test was used to examine the significant relationship between two variables, which the test results are given in Table 3.

**Table 3: Spearman correlation test results**

Sig	Correlation coefficient	Count	Variable
0.000	0.520	136	Information system implementation the amount of applicant collateral the facility

According to Table 3, because level of significance is smaller than 0.05 ( $P = 0.000 < 0.05$ ) relationship between two variables is significant and hypothesis of non-correlation and zero correlation coefficient of 95% (level) of 5% is rejected.

Therefore implementation of information systems and the amount of collateral applicant loans has significant positive linear relationship.

**The second sub-hypothesis testing: There was a significant relationship between the implementation of the information system and the loan applicant's education in Ansar Bank of West Azerbaijan province.**

To verify that there is a relation between the implementation of the information system and the applicant's education because each is in a different category Ky Due Pearson square test was used. Pearson's chi-square test results are given in Table 4, from the table can be seen that the test's significant level is smaller than 0.05, ( $P = 0.0 < 0.05$ ) hypothesis of no relation is rejected and main hypothesis is confirmed.

**Table 4: Spearman correlation test results**

Sig	Correlation coefficient	Count	Variable
0.000	0.452	136	Information system implementation Applicant's education the facility

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**The third sub-hypothesis testing: There was a significant relationship between the implementation of the information system and the credit history of the loan applicants in West Azerbaijan Province’s Ansar Bank.**

Since the implementation of information systems and credit history do not have bivariate normal distribution, Non-parametric test used to test the third hypothesis. Spearman correlation test was used to examine the significant relationship between two variables which the test results are shown in Table 5. According to findings because the significant level is smaller than 0.05 ( $P = 0.001 < 0.05$ ), relation between two variables is significant and assumption of no correlation and zero correlation coefficient of 95% reliability (level) of 5% are rejected. . Therefore implementation of the system information on credit history has a positive and significant linear correlation.

**Table 5: Spearman correlation test results**

Sig	Correlation coefficient	Count	Variable
0.001	0.123	136	Information system implementation Applicant's education the facility

**The fourth sub-hypothesis: There is a significant relationship between the implementation of information systems and loan applicants’ job.**

Since the implementation of information systems and applicants’ job do not have bivariate normal distribution, Non-parametric test is used to test the fourth hypothesis. Spearman correlation test was used to examine the significant relationship between two variables in which the test results are given in Table 6. According to findings as the significant level of 0.05 is smaller ( $P = 0.003 < 0.05$ ) relationship between two variables is significant and the hypothesis of non-correlation and zero correlation coefficient of 95% (level) of 5% is rejected. Therefore implementation of the information system has a significant linear and positive relationship with applicants’ job.

**Table 6: Spearman correlation test results**

Sig	Correlation coefficient	Count	Variable
0.003	0.235	136	Information system implementation Applicant's education the facility

**Discussion and Conclusion**

The purpose of this study is to examine the role of information systems on validation of Ansar bank customers in West Azerbaijan province. Analysis results of the Main hypothesis showed that the implementation of information systems with validation of clients has a significant positive linear relationship. As a result Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this and think about the implementation and promotion of information and communication systems and this way promote the rate authentication of customers. Also Analysis results of First sub-hypothesis showed that implementation of the information system have a significant positive linear relationship with the amount of applicants’ loan collateral. Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and this way promote the applicants’ loan collateral. Also Analysis results of second sub-hypothesis showed that there is a relationship between the applicant's education and information system and they are not independent so second sub-hypothesis is confirmed. Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and consider it in future plans. Also Analysis results of the third sub-hypothesis showed that there is a significant positive linear relationship between implementation of the system information with loan applicants’ credit history of Ansar Bank in West Azerbaijan province, and implementation of Information system has a significant positive linear relationship with loan applicants’ credit history. As a result, the third sub-hypothesis was confirmed. Ansar Bank managers and officials in Western Azerbaijan

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province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and this way promote the loan applicants' credit history. Also Analysis results of the fourth sub-hypothesis showed that there is a relationship between implementation of the system information with loan applicants' job and they are separated and independent. Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and this way promote the improve their future plans. All of these factors can help in implementation of appropriate information system to correct validity of customers in this organization. The results of this part of the research in Ansar Bank of West Azerbaijan province show that these factors able to result in the creation of an information system, But managers need to constantly and with special sensitivity check these issues and national and transnational changes in this organization. Considering the results, the following suggestions are offered:

According to the results of research on the relationship between information systems and amount of applicant collateral, Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and this way promote loan applicants' collateral. According to the results of research on the relationship between information systems and applicants' education, Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and this way improve the use of information systems.

According to the results of research on the relationship between information systems and applicants' credit history, Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and this way promote applicants' credit history. According to the results of research on the relationship between information systems and applicants' job, Ansar Bank managers and officials in Western Azerbaijan province must pay special attention to this matter and think about the implementation and promotion of information and communication systems and proportional to applicant's job make them able to use the information system appropriately. Ansar Bank managers must promote quality of the of information systems through (Using information technology in a variety of banking services, Having a greater number of options in the field of IT services, Use new technologies (Internet, ATM machines, etc.) in branch, Financial lending rate by information technology, reducing paperwork and bureaucracy with IT help, Inform and educate people about the latest in the electronic banking services in media, explicit inform about lending requirements and regulations with respect to the information systems in the electronic banking, Not to confuse services through IT, Confidentiality of clients and create a sense of trust and confidence in their through good behavior of employees, Ease of customer access to their bank accounts through IT (Internet Banking, Phone Banking and Mobile Banking).

### **REFERENCES**

- Abdou H et al., (2009).** Neural nets versus conventional techniques in credit Rating in Egyptian banking. *Expert System with Application*; doi:10.1016/j. eswa.08.030.
- Alborzi M (1998).** Research Methodology from the standpoint of statistics, Shahid Beheshti University, Fourth International Conference of Statistics of Iran.
- Asghari Oskouee MR (2006).** Application of Neural Networks in forecasting of time series. *Journal of Economic Research of Iran* (12).
- Azar Adel MA (2002).** Design and representation of efficient models of allocation of bank facilities with Neural Network approach, logistic regression and linear regression, Research Center for Computer Science.
- Bagheri E (2013).** IT management in the banking system of Iran. *Journal of Economic Research of Iran* (13).

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**Beheshtian M Abo-l-Hoseini (2005).** *Management Information Systems of Holistic Approach in Theory, Application and Design*, Tehran.

**Jafar Ali Jasbi J (2003).** Explanation and presentation of dynamic multi-criteria decision-making models, Islamic Azad University, Science and Research branch. PhD thesis of management.

**Mir Taleae MA and Azadeh MA (2012).** Provide intelligent algorithm based on trust to validate clients of a financial system. *Journal of Industrial Engineering* **46**(1).

**Saraffi Zadeh A (2010).** *Information Systems* (Avaye Noor) Tehran **1**.

Set guidelines for the effective management of credit risk, Central Bank of the Islamic Republic of Iran.

**Shayan Arani SH (2001).** Risk management and Non-governmental Islamic banking, Iran Banking Institute, 12th Islamic Banking Congress.

**Taghavi Fard MT and Nadali A (2012).** Classification of applicants of bank credit facilities.

**Thomas L (2000).** A Survey of credit and Behavioral Scoring: Forecasting Financial Risk of lending to Customer. *International Journal of Forecasting* **16**.

**Zir I and Jose S (1997).** *Financial Prediction Using Neural Networks* (International Thomson Computer press).