Effective factors in reducing Credit Risk of Financial and Funds Institutions, case study: (Keshavarzi Bank) in Kohgiluyeh and Byer-Ahmad

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ABSTRACT
Credit risk is the most important issues about banking facilities. Various factors effect on the non-repayment of banking facilities that the credit risk of banks can be reduced and controlled by identifying these factors. The purpose of this study was to evaluate the Effective factors in reducing Credit Risk of Financial and Funds Institutions, (Keshavarzi Bank) in Kohgiluyeh and Byer-Ahmad in 1393. The research method was descriptive-survey. The population of the study included all experts in Keshavarzi Bank branches, that because of the low number of statistical population, sampling was not done and the 30-item questionnaire was distributed between all experts and a number of bank employees who were 40 patients. The questionnaire reliability is calculated 0/72 by Cronbach's alpha. The Data collected by descriptive and inferential statistics were analyzed by using univariate T test and Friedman test and spss software. The findings showed that from the perspective of the audience, factors such as the development and improvement of the Bank's banking system, collateral warranties, the rate of return on activity, customer validation and individual circumstances of the borrower had a significant effect in reducing the credit risk of Financial and Funds Institutions (Keshavarzi Bank in Kohgiluyeh and Byer-Ahmad).

INTRODUCTION
In today's complex markets, all industries are faced with risks that if are not paying attention to it, will be faced with serious consequences. Banks as intermediate institutions of funds are Responsible for collecting excess liquidity of society and directing it as funds allocated to economic units which are in need of cash. One of the important factors of the Health Economics Society is the Regular and precise functioning of cash flow cycle between bank and customers because if the resources remain to customers, cash flow cycle will be deficient and in practice will have no appropriate return. Although the risk of non-repayment of loans to banks by the customer (credit risk) is one of the major risks, but other risks, such as operational risk, liquidity, market and so on have also a major impact on the Bank's activities. Due to severe and increasing competition of banks and financial institutions, as well as other risks highlighted, banks' life is faced with serious doubt and as seen in the recent economic crisis, less attention to the major risks of the banking industry and also the lack of serious effort to comprehensive risk management, caused to the bankruptcy of considerable number of small and medium banks that is as a warning to other activists in the industry [1]. Lack of circulation system of money and granting credit has affected all economic actors more or less and like devastating waves will face layers of the economy with serious problems. In a healthy economy, all economic actors in proportion to their share will benefit of the advantages of the proper functioning of the financial system that this will be established only with the involvement of those economic actors. Risk management in financial institutions and banks of Iran, though late, but has grown with tremendous speed and it seems that the banking industry is going through a transition period between normal banking and modern and science banking. Does not last long That Iranian banks have been equipped with modern science and knowledge and In dealing with the challenges will benefit of effective and efficient tools [2]. Knowledge of the factors affecting the performance of the credit repayment is required and can be a useful guide for Planners Credit and help them to adopt the appropriate practical strategies. In
recent years one of the most important challenges facing the banking system is the increasing trend (credit default). Due to the country's financial and liquidity market is bank-centered and banks have about 90% of the country's liquidity, this has become a national challenge, that in describing such situation, analyzing the behavior of banks and examining factors creating non-repayment of debts is very important. In this study the effective factors in reducing Credit Risk of Financial and Funds Institutions (case study: Keshavarzi Bank in Kohgiluyeh and Byer-Ahmad) will be examined.

**Literature:**

**Risk of Banking Operations:**

Risk has different and misleading meanings. Many people such as professional traders, risk managers and all the people use this word. In newspapers and magazines, there are various expressions in which the word risk is used. Such phrases can include Risky assets, business risk, financial risk, systemic risk, portfolio risk, credit risk, non-repayment risk, countries' risk, market risk, operational risk, liquidity risk, transaction risk and so on.

**The concept of credit risk:**

Credit risk is one of the most important risk production factors in banks and financial institutions. Credit risks can also be defined as unexpected events that usually occur in forms of a change in the value of assets or liabilities. The risk occurs due to the welfare recipients do not have willingness or ability to repay their debt to bank that it will be remembered as the default, which is synonymous to credit risk.

Overall, the four traditional indexes are widely considered to determine the credit risk for banks:

- The ratio of past due, overdue and doubtful receivables to granted facilities: the higher the ratio, the higher the risk of the institution.
- The ratio of past due, overdue and doubtful receivables to assets: increase the ratio of two sections would be a sign of increased credit risk.
- The ratio of reserve for doubtful receivables to granted facilities: an increase in volume of doubtful receivables which is due to the increasing of past due and overdue receivables can indicate an increase in credit risk.
- The ratio of reserve for doubtful receivables to total assets: its increase represents an increase of risk and its reduction indicates a reduction of risk

**Validation:**

Validation is assessment of the applicant's ability to repay the credit and financial facilities and the probability of non-repayment of the funds received by them. Today, in order to validate the customers, systems such as credit scoring and consumer credit ranking are developed.

**Credit Scoring:**

Credit scoring is a system through which banks and credit institutions by using data from past and present of clients, assess the risk of non-repayment of loans by him, and give him points. In other words the Scoring means to quantify the probability of default in the future. This method is rating the credit customer impartially and based on statistics and quantitative data. While traditional methods for evaluating customers are mainly subjective and based on the view of authority (or authorities) of lending. The credit rating method is besides the credit scoring method. Credit rating is really a method for identifying and agreeing to grant loans to applicants with low risk and avoid granting loans to high-risk applicants by classifying them.

**Benchmarks and models using for customer rating:**

One of the most important issues in credit activities is having full knowledge of the amount of credit worthiness of the other party because the information asymmetry between the two parties of transaction, provides the possibility of failure. Therefore, since most of the credit activities done by banks, if banks in doing credit activities, examine the amount of credit worthiness of the other party carefully, the information asymmetry between the two parties of transaction reduces extremely and activities efficiency increases and ensure decisions will be made with greater confidence. So the evaluation and assessment of the ability of credit customers to repay, individually and calculate the probability of non-repayment of their received credit is called credit ratings.

**5s criteria:**

- Personality: examine the applicant's reputation and his rectitude of financial operations and past activities that shows the applicant's willingness to repay their obligations.
- Capacity and power: examine the applicant's ability to obtain income and profits.
- Capital: examine the investment and financial statements of the applicant.
- Conditions: examine the conditions and external factors and political, social and local variables.
Collateral: Forecasting collaterals or devices at the time of receive credit or facilities that can be provided as collateral for institution.

**Standard loop:**
Other criterion for evaluating the validity of the applicant is the use of standard loop, which briefly included the following:

**5p criteria:**
- **People:** Assessment and evaluation of people's comments on the economic entity, including: efficiency in production, trade and age of managers, insurance coverage, Profits from capital and assets, evaluation and control of assets, willing to fulfill the obligations, position in the industry or economic sector.
- **Product:** In this course, profitability, quality and quantity, value, availability, marketing goals, insurance coverage, etc. are evaluated.
- **Protection:** In this part, domestic financial support, based on available financial statements or cash and other collaterals on hand and external support such as bank guarantee, endorse and financial documents, etc. are evaluated.
- **Payments:** in this section issues such as unpaid credit problems, check the details of the past payments, liquidity and assets capability, profitability, quality, foreign debt and so on are studied.
- **Perspective:** in this section issues such as specific strategies and plans of the company for the future, examine the profit from the sale, to the possibilities of market about price fluctuations, will be examined.

**Literature:**

**Internal studies:**
- Mahmoudi [3] in a study entitled "examine the causes and factors affecting non-repayment of early-output granted facilities in Melli Bank branches of Shahrekord" by using descriptive-survey method during 1385 to 1389, concluded that to cope with the increasing of overdue demands of Melli Bank branches of Shahrekord, it is recommended that enhanced risk management in banks and in addition to identifying and covering all risks, a strong emphasis on financial assessment process and reliance on the audited financial statements be done.
- Shamsollah et al [4] in investigating the factors affecting the probability of non-repayment of the credit facilities of corporate clients Export Development Bank of Iran by using logistic regression method concluded that variables of the ratio of Liquidity to total debt, Asset turnover ratio, current ratio and the ratio of cash have an adverse effect on credit risk, and the ratio of free cash flow, total debt ratio, current ratio of debt to equity, have a direct effect on credit risk.
- Taqi Nattaj and Najaf Pourkordi [5] in a study entitled "examine and Analysis of the causes of increasing outstanding demands of Nemone bank and ways to prevent and reduce it" by using inductive and deductive method in Nemone bank branches across the country during fiscal years 1383 to 1387 concluded that Many of the issues that cause to outstanding are inter organizational and the need of long-term planning for the education and benefit of new methods of validation is more required.

**Foreign Studies:**
- Oladeebol jo-Oladeebo [6] in their study by using data from 100 farmers in 10 villages in 2 regions randomly and by descriptive statistics and regression analysis found that Factors such as age, education, farming experience, size and type of activity can be considered a contributing factor in the repayment of loans.
- Olagunju ∙Adeyemo [7] in their paper entitled to factors affecting repayment for small farmers in South West Nigeria by using the three-step method of collecting the data suggest that Experience of farmer, agricultural area, cost of preparing loans, The number of requests to get a loan and farmer's education are of the most important factors in repayment.

**Research Methodology:**
This study was conducted in survey method and a questionnaire with Likert 5 point scale (1 = strongly disagree, 2 = disagree, 3 = no opinion, 4 = agree, 5 = strongly agree) was used to collect data. To collect data, a questionnaire of 30 questions was designed. The questionnaire reliability was calculated by using Cronbach's alpha, which is obtained 0/72 in this study. The research population include all experts of Keshavarzir bank branches in Kohgiloyeh and Boyer-Ahmad, that because of the low number of statistical population, sampling was not done and the 30-item questionnaire was distributed between all experts and a number of bank employees who were 40 patients.
Research results:
The research results were used in both descriptive statistics level (frequency, percentage, cumulative frequency percentage and mean) and inferential statistics level (one sample t-test and ANOVA were used depending on the variables type).

Descriptive results:
Here is a summary of the demographic variables such as gender, education and age given in Table 1. Then the research hypotheses are tested in terms of the presented conceptual model.

Table 1: Demographic characteristics of respondents.

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>37</td>
<td>94.6%</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>5.4%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma and below Diploma</td>
<td>7</td>
<td>19.5%</td>
</tr>
<tr>
<td>Advanced Diploma</td>
<td>4</td>
<td>8.3%</td>
</tr>
<tr>
<td>Bachelor</td>
<td>20</td>
<td>50%</td>
</tr>
<tr>
<td>Masters and above</td>
<td>9</td>
<td>22.2%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100%</td>
</tr>
<tr>
<td>Work Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>31</td>
<td>76%</td>
</tr>
<tr>
<td>5-10 years</td>
<td>9</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100%</td>
</tr>
</tbody>
</table>

In examining the gender, it was found that 94.74% of the respondents were male and 5.26% were female. Examining the education level of the respondents indicated that 19.5% of respondents were diploma, 8.3% were advanced diploma, 50% have a bachelor’s degree, 19.5% have a master’s degree and 2.2% have a Ph.D. degree. In reviewing the Work Experience of the respondents, 76% had a history of more than 10 years, and 24% had a history of 5 to 10 years.

Results of Inferential research:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assumed average</th>
<th>Obtained average</th>
<th>T Score</th>
<th>Degree of freedom</th>
<th>Significant level</th>
<th>The confirmed assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of the banking system</td>
<td>3</td>
<td>4/15</td>
<td>19/08</td>
<td>38</td>
<td>000</td>
<td>The H0 hypothesis Rejects and the H1 hypothesis accepts.</td>
</tr>
<tr>
<td>Collateral warranties</td>
<td>3</td>
<td>4/36</td>
<td>19/80</td>
<td>38</td>
<td>000</td>
<td>The H0 hypothesis Rejects and the H1 hypothesis accepts.</td>
</tr>
<tr>
<td>Validation of Customers</td>
<td>3</td>
<td>4/20</td>
<td>16/50</td>
<td>38</td>
<td>000</td>
<td>The H0 hypothesis Rejects and the H1 hypothesis accepts.</td>
</tr>
<tr>
<td>Rate of return on activities</td>
<td>3</td>
<td>4/05</td>
<td>17/51</td>
<td>39</td>
<td>000</td>
<td>The H0 hypothesis Rejects and the H1 hypothesis accepts.</td>
</tr>
<tr>
<td>Individual circumstances of the borrower</td>
<td>3</td>
<td>3/77</td>
<td>8/66</td>
<td>37</td>
<td>000</td>
<td>The H0 hypothesis Rejects and the H1 hypothesis accepts.</td>
</tr>
</tbody>
</table>

Conclusions and discussion:
According to Table (2) development of the banking system has a significant impact on reducing credit risk. Because the obtained average is 4.15 that according to the level of significance, has a significant difference with the assumed average i.e. 3. In researches that were done by Shabani-Tabatabaei (1391) before this study were concluded that, in the banking system in Iran, the role of inter-organizational factors in the formation of outstanding is more than external factors of the organization. That, the results of this study are consistent with this research.

According to Table 2, the type of collateral warranty has a significant effect on reducing credit risk. Because the obtained average is 4.36 that according to the level of significance, has a significant difference with the assumed average i.e. 3. In researches that were done by before this study were concluded that, the type of collateral deposited with the bank for guarantee has a negative and effective impact on the non-repayment of loans. This means that getting loans with real estate collaterals have better conditions of repayment than security collaterals.

According to Table (2) validation of customer has significant impact on reducing credit risk. Because the obtained average is 4.2 that according to the level of significance, has a significant difference with the assumed average i.e. 3. In researches that were done by Taqi Nattaj and Najaf Pourkordi before this study were concluded that, Many of the issues that cause to outstanding are inter organizational and the need of long-term planning for the education and benefit of new methods of validation is more required, that the present study is consistent with these findings.
According to Table 2, Rate of return on activities has a significant effect on credit risk reduction. Because the obtained average is 4.05 that according to the level of significance, has a significant difference with the assumed average i.e. 3. In researches that were done by before this study were concluded that, major factors such as kind of activity, History of cooperation with banks, and Loan amount has a significant effect on the credit risk of corporate clients of Keshavarzi Bank and the present study is consistent with these findings.

According to Table 2, the Individual circumstances of the borrower have a significant impact on reducing credit risk. Because the obtained average is 3.77 that according to the level of significance, has a significant difference with the assumed average i.e. 3. In researches that were done by Urns – Olagunju and Adeyemo - Oladeebol jo-Oladeebol before this study achieved these results; concluded that the size of the loan, income, experience of activity, age, and level of education have a positive and significant effect on the repayment. Oladeebol jo-Oladeebol [6] found that factors such as (age, education, farming experience, size and type of activity) can be considered as contributing factors in the repayment of loans. Olagunju and Adeyemo [7] in their paper suggest that Experience of farmer, agricultural area, cost of preparing loans, the number of requests to get a loan and farmer's education are of the most important factors in repayment. Results of these studies are consistent with the present research.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Title of hypothesis</th>
<th>Hypothesis testing tools</th>
<th>Conclusion</th>
</tr>
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<tr>
<td>1</td>
<td>Development of the banking system has a significant effect on reducing credit risk</td>
<td>Steve dent's one sample t test</td>
<td>Confirm the hypotheses</td>
</tr>
<tr>
<td>2</td>
<td>Type of collateral warranty has a significant effect on reducing credit risk</td>
<td>Steve dent's one sample t test</td>
<td>Confirm the hypotheses</td>
</tr>
<tr>
<td>3</td>
<td>Validation of customer has significant impact on reducing credit risk</td>
<td>Steve dent's one sample t test</td>
<td>Confirm the hypotheses</td>
</tr>
<tr>
<td>4</td>
<td>Rate of return on activities has a significant effect on reducing credit risk</td>
<td>Steve dent's one sample t test</td>
<td>Confirm the hypotheses</td>
</tr>
<tr>
<td>5</td>
<td>Individual circumstances of the borrower have a significant impact on reducing credit risk</td>
<td>Steve dent's one sample t test</td>
<td>Confirm the hypotheses</td>
</tr>
</tbody>
</table>

REFERENCES