# Investigating the Effective Factors in Creating and Increasing Bank Debts in Rafah Bank of Hamedan Province

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#### Abstract

The present research examined the factors affecting the increase in pending claims on banks in Hamadan city. The variables include proper validation for repayment of the facility, type of collateral, the interest rate changes on loans and deposits, rules and regulations governing the banking and judicial cooperation. Data were collected from the records of outstanding facilities and Statistics (Pearson correlation coefficient and the Kolmogorov-Smirnov normality tests) and analyzed using SPSS version 21. The results indicated the effectiveness and relevance of these variables to create requests.

Keywords: Overdue receivables, banking, accrued loan, Refah Bank

#### Introduction

One of the necessary and effective tools for economic development of any country is an efficient banking system and any action to improve and promote banking system leads to saving. investing and allocating resources and applying hidden and sporadic potential instruments in country to progress in public welfare. Correct relation between financial and productive systems in any country is considered as an important factor in financial growth and development. Banks, as the main part of financial system (basic financial system), has the role of financially supporting productive, commercial, consumable and even governmental sections. Now, in most countries, a large part of collection of small saving of families and their proper allocation to profitable projects of financial institutes depends on banks (Zamanian, 2013). Equipping and allocating money properly with regard to financial structures of country due to reasons such as lack of capital market development and other non-banking and contractual networks, the responsibility of financial support of real financial sections is on banking network. According to the essence of banking activities, banks have high profitability and in the meanwhile face the highest risks. Some of the important risks that banks generally face include credential risk, strategic risk and liquidity risk in market. Among these, credential risk is the most important. Bank debts, as a subcategory of credential risk, can be known as one of the most significant issues and problems of banks and financial institutes. Unfortunately, bank debts in our country is a large rigid which according to the last statistics reaches to about 80 thousands billion Tomans. A lot of researches and studies were conducted by financial experts of the field to identify the reasons for emergence of bank debts and to find approaches to prevent or remove it.

## Statement of the problem

In financial systems that work with Cash flow, proper and fast flow of resources and consumptions indicates system's health and efficiency of executive methods. These institutions and companies in order to implement monetary policies in any country can play the best role. Bank is a financial institute or organization that has responsibilities such as equipping and distributing credits, credential operations, financial operations, buying and selling currency, transferring funds, meeting predicative demands, and customers' share profit, paying customers' debt, maintaining shares and

exchange and expensive goods of customers, doing buying and selling representations. One of the main organs and factors of financial circle of any society is formed by banks and monetary and financial exchange. In all human societies, always there has been a reliable reference for holding peoples' money and this reference plays a fundamental role in monetary exchange because in most cases it was a provider of desirable conditions and primary economic needs of societies was taken into account by people (Hasan Zadeh & Habibi, 2010).

Monetary and credit institutes, on the one hand, and absorbing people's wandering cash and deposits as resources and, on the other hand, by taking appropriate measures lead them to investment deposits. Thus, absorbed resources as inputs to banking system and paid facilities or consuming absorbed resources is considered an output of banking system. Obviously, emergence of any trouble in these sections leads to emergence of problems in the system process. Therefore, correct and effective management in these institutes is in fact by managing resources and consumption. Receiving facilities at the specified time determines implementation of correct ways and application of resources to create necessary facilities to expand economic activities and supporting financial resources needed for different financial sections and finally, leading bank resources to appropriate places of investment. Banks as financial mediating institutes requires resource sweep. Although their non-current debts leads to lack of credits return to banks and locking a large amount of resources of banking network whose negative consequences in vast majority turns to banking system and all financial sections (Hasan Zadeh and Habibi, 2010).

On the other hand, ever increasing assigned facilities in recent years, along with reducing and weakening bank resources, made the frail body of banking system more than before, besides the government in order to maintain the balance between state and private banks by order, tried to provide conditions apparently appropriate for state banking system and this behavior in addition to depriving the community from competition advantages of private sector in representing better services blocks the way to promote and progress of this section.

Bank debts can be one of the main issues and problems of banks and financial institutes. Unfortunately, bank debts in our country has a large rigid that according to the last statistics, it riches 80 thousands billion tomans. Numerous researches and studies by economists and experts of the field were conducted to identify and root bank debts and find ways to prevent or solve it.

If, due to any reasons, allocated money of a bank to the society does not return, it will be transferred to the headlines of debts. In most cases, facilities were turned to bank debts at the time of giving them for different reasons, enough knowledge and exact credibility of customers were not achieved or enough collateral were not taken or facilities were paid at the order of government or VIPs and this caused at the time of deadline or deference of these facilities or commands of the same advising people or organ, again there were barriers on the way to meet demands and banks are excused (Attari, 2011).

Refah Kargaran bank, as one of the commercial banks of the country, like other banks has always been encountered with the issue of non-return of facilities granted and tried to reduce and fix it. A majority of debts goes back to assigned and demanded facilities (facilities that banks offer based on state obligations and legal articles of budget to natural and legal persons) and the other part is for the credential facilities from bank resources. In this research, we tried to represent effective factors on creation and increase of bank debts in branches of Refah bank of Hamedan during 2008-2012 and or for reducing and or at least fixing them, practical solutions should be represented.

## Main purpose of the study

The main purpose of the study is to analyze the impact of paying assigned and demanded facilities in creating bank debts in Refah banks of Hamendan.

## Minor objectives

- Analysis of the impacts of demanded changes of order rate (facilities and deposits) on the bank debts of Refah bank.
- Analysis of the impact of incorrect credibility of facility appliers on bank debts of Refah bank of Hamedan.
- Analysis of the effect of not-receiving adequate collateral from facility receivers on the bank debts of Refah bank of Hamedan.
- Analysis of the effect of dominant rules' weakness on bank debts of Refah bank of Hamendan.
- Analysis of the impact of lack of cooperation of judicial and registration authorities on bank debts of Rfah Bank of Hamedan
- Analysis of the impact of incorrect selection for the repayment of facilities granted on the bank debts of Rafah bank of Hamedan.

## **Research questions**

## The main question

- Does the payment of assigned and demanded facilities affect the creation of bank debts in Refah bank of Hamedan?

## **Sub-questions**

- 1. Does the demanded changes of interest rate (facilities and deposits) affect bank debts of Refah bank of Hamedan?
  - 2. Does incorrect authentication of facility appliers affect bank debts of Refah bank?
- 3. Does lack of receiving appropriate collateral from the facility receiver affect bank debts of Refah bank of Hamedan?
  - 4. Does weak rules dominant on bank operations affect bank debts of Refah bank?
- 5. Does lack of cooperation between judicial and registration authorities affect bank debts of Rafah bank of Hamedan?
- 6. Does inappropriate selection of repayment deadline for granted facilities affect bank debts of Refah bank?

#### **Definition of variables**

Assigned and demanded facilities: This type of facilities is mentioned against unassigned and undemand facilities that banks and their branches are obliged to pay them despite lack of sufficient justification for the plan in all aspects. This type of facilities for their rules and legislations is assigned to banking system and somehow does not conform to Terms and Conditions of banks and they despite their desire, grant this type of facilities. This type of facilities has an important share from banks' demands.

Changes of profit rate (deposits and facilities): Reduction of facilities interest rate with regard to the high interest rate and vice versa, increase of interest rate of facilities at the time of stagnation and also sudden and uninvestigated changes of interest rate of bank deposits and facilities' interest rate and the system of the supply and demand should be considered.

Authentication: A method for analysis and identification of the facility applicant's qualification from the following perspectives including dependability, capability and technical competence, financial capacity and credit capacity, and collateral or authenticity

#### **Principles**

The above credential standards and criteria derived from the values dominant on banking system should always be followed to provide a relative guarantee to repay facilities and credit

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3460

(Hedayati et al., 1999). In the other definition, authenticity means evaluation and assessment of repayment capability of financial credit and facilities applicants and the probability of not repaying received credits from them (Rouien Tan, 2005).

#### Literature Review

Ekrami et al. (2009) in a research titled effective factors in matured and outstanding claims of banks, printed by economic researches, studied some factors related to the bank debts in order to present approaches to prevent them. From the final model we can conclude that by the increase of unit in the variables of accrued cheques, the credit record and the proportion of price to the average currency, the probability of facilities accrue increases and by a unit increase per creditor flaw capacity of current account of applicant, the probability of facilities deference reduces.

Heydari et al. (2010) in a research titled "analysis of the impact of macro-economic indicators on the bank debts of banks using ARDL (Auto Regressive Distributed Lags) model concluded that the impact of shocks of economic variables which arose out of monetary and financial policies like inflation, Non-oil GDP growth, liquidity, facilities' interest rates, respectively, have the greatest impact on the banking system's outstanding claims. Also, they confirmed that direct interference of government and or central bank in the macro-economic condition such as change of facilities' interest rate, fluidity (for the budget deficit) and inflation leads to increase of bank debts of bank.

Zamanian (2013) in a research titled "effective reasons for non-repaying facilities allocated to legal customers in the food industry section (case study of Refah bank of Tehran), analyzed the impact and relationship between variables: type of collateral (property or promissory note), type of the activity's location ownership (leased or owned), the history of cooperation with bank, the borrower's level of education, the amount of customers' capital and the type of production or activity on lack of repayment (outstanding claims) of granted facilities studied law companies in the food production section, some of its results include: 1) estimation of the grading model by regression model using sample data show that there is a significant relationship between parameters of collateral, type of the activity' location ownership, history of cooperation with bank and the level of education and capital of customers with credit risk of customers of Refah Kargaran bank. But, parameters of production or activity are not effective elements in not repaying granted facilities to the bank. 2) among variables used in this research, the variable "customers' capital" has the highest share in differentiating costumers to two groups of companies with high credit risk and companies with low credit risks and 3) among variables used in this study, three variables of "collateral type", "type of the activity location ownership" and "the history of cooperation with bank" leads to reduction of default risk. And "the type of activity's location ownership" is more effective in reducing changeable risk of default attributed to the other two. In other words, it has a significant reverse relation with change of collateral from prosperity note to property and change of the activity's location from leased to owned and reduction of default risk.

Babukak and Janker (2005), in a research titled "the impact of macro-economy shocks on the quality of loan's portfolio; using monthly data of the banking section of Czechoslovakia (1993 to 205) used unlimited comprehensive model VAR (Vector Auto-Regression) to measure the impact of economic shocks on the quality of loans. According to the fitted, strong relationship between the quality of loans and some other financial variables (inflation, credit risk, interest rate, currency rate and etc...) based on instant reaction function.

Balakoumar (2010), in a research titled "financial crisis: credit risks and dynamicity of macro-economy", refers to the relationship between some indicators of macro-economy (Real GDP, inflation, loan growth, basic interest rate) with credit risk and Non-current loans (accrued) and

confirm the impact of these indicators as independent variable on accrued loans as dependent variable.

## Methodology

In this research causal method was used; causal or retrospective research are researches in which the researcher with regard to dependent variable studies the probable reasons for their occurrence (Delavar, 1987), by emphasis on analytic statistics, and by profiting from SPSS software version 21 (Statistical Package for Social Science) meaning software package for social sciences, uses this software for statistical analysis of observations, questionnaires and experiments in all fields (Seif & Sarmadi, 2008).

In order to test the hypothesis, the relationship between dependent and independent variables, derived from conceptual Theorems, to assess hypotheses, use correlation coefficient test. In general, it can be claimed that: the present research with regard to type and purpose is an applied research, with regard to research method, is causal and with regard to research method and nature and attitude to study the issue is a descriptive research. Also, regarding perception, description, explanation, analysis and evaluation and liability of information gathered, the method is statistics-oriented.

Statistical population includes all real or imaginary members to which we try to generalize research findings; or in other words society include a group of people, things or occurrences that at least have one common feature or qualification. The statistical population should be comprehensive, i.e. should be in the way that from a spatial and temporal point of view includes all units under study and besides; accordingly inclusion of units that should not be studied is prevented (Delavar, 1987).

The statistical population of the present research is all branches (11 branches) of Hamedan and time period of this study is from the beginning of 2008 to the end of 2012. In order to obtain results and a more exact procedure, monthly information and statistics of the bank which is distributed through bank's information and statistics is used. Since all information and statistics of all branches are available and there is enough information about the conditions and situation of cases, all branches of Hamedan will be studied and analyzed; consequently, statistical population is similar to the statistical sample.

The statistical population is all the banking accrued cases (Doubtful category), in branches of Refah bank of Hamedan and its sample size is all bank accrued cases (Doubtful category) of 11 branches of Refah bank of Hamedan.

## Data collection tools

Research data which includes all Assigned and demanded facilities, changes in facilities and deposit interest rate, authenticity, type of collateral appropriate for facilities, rules and regulations dominant on banking operation, cooperation with judiciary and registration authorities and the time of repaying facilities that by direct reference to all branches of Refah Kargaran bank of Hamedan to use quantitative information, analyze and observe statistics and rigid and cases of their accrued facilities

#### Data analysis method

In this research, data were analyzed by correlation coefficient test and SPSS software version 21 was applied.

#### Results

## Hypothesis testing

*Main hypothesis:* there is significant positive relationship between paying assigned and commanded facilities and creating bank debts in Refah bank of Hamedan.

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In order to test this hypothesis, correlation coefficient should be used. Test hypotheses are as follows:

Table 1: Correlation coefficient between paying assigned and commended facilities and

making bank debts

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.689 |
| Meaningfulness          | 0.000 |

According to the table above using correlation coefficient between paying assigned and demanded facilities and making bank debts, we found out that by the increasing the level of paying demanded and assigned facilities, creating bank debts also increases up to 0.689. From the small meaningful level (0.000) of assumed value, we conclude that the null hypothesis i.e. lack of relationship between these two variables is rejected. Therefore, it can be said that there is significant positive relation between paying assigned and demmanded facilities and creating outstanding claims in Refah bank of Hamedan.

**Sub-hypothesis 1**: There is significant positive relation between the changes of interest rate (facilities and deposits) and bank debts of Refah bank of Hamedan.

Table 2: Correlation coefficient between interest rate changes and making outstanding claims

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.778 |
| Meaningfulness          | 0.000 |

According to the above table, using correlation coefficient between interest rate changes and making outstanding claims, we found out that by the increasing the level of debts derived from changes in interest rate, making bank debts increases up to 0.778. From the small meaningful level (0.000) from the assumed level ( $\alpha$ =0.05) we conclude that the null hypothesis i.e. lack of meaningful relationship between these two variables is rejected. Therefore, it can be said that: there is a significant positive relationship between the changes of interest rate and making bank debts in Refah bank of Hamedan.

**Sub-hypothesis 2**: there is a significant positive relationship between incorrect authenticity of facilities' applicants and outstanding claims of Refah bank of Hamedan.

Table 3: Correlation coefficient between incorrect authenticity of facilities applicants and

making bank debts

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.764 |
| Meaningfulness          | 0.000 |

According to the above table, using correlation coefficient between incorrect authenticities of facilities applicants and making outstanding claims, we find out that by increasing claims derived from incorrect authenticity of facilities applicants, making outstanding claims increases up to 0.764. Because the level of meaningfulness (0.000) is smaller than the assumed value C = -0.05, we conclude that the null hypothesis that says there is no significant relation between these two

variables is rejected. Therefore, we can say that: there is significant positive relationship between incorrect authenticity of facilities applicants and making bank debts in Rfah bank of Hamedan.

Table 4: Correlation coefficient between not receiving appropriate collateral from facilities

receivers and making outstanding claims

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.751 |
| Meaningfulness          | 0.000 |

According to the above table, using correlation coefficient between not receiving appropriate collateral from facilities receivers and making outstanding claims we find that by increasing the debts derived from not receiving appropriate collateral from facilities receivers, making outstanding claims increases up to 0.751. Because the meaningful level (0.000) is lower than the assumed level  $\alpha$ =-0.05, we conclude that the null hypothesis i.e. the lack of meaningful relation between these two variables is rejected. Thus, it can be said that: there is significant positive relation between not receiving appropriate collateral from facilities receiver and making bank debts in Refah bank of Hamedan.

**Sub-hypothesis 4**: there is significant positive relation between weakness of rules and regulations dominant on bank operations and bank debts in Refah bank of Hamedan.

Table 5: Correlation coefficient between weakness of rules and regulations' dominant on bank

operations and making outstanding claims

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.580 |
| Meaningfulness          | 0.000 |

According to the above table using correlation coefficient between weakness of rules and regulations dominant on bank operations and making outstanding demands we find that by increasing the level of claims derived from weakness of rules and regulations dominant on bank operation, making outstanding claim also increases up to 0.580. For the smaller amount of meaningful level (0.000) than the assumed level  $\alpha$ -0.05, we conclude that the null hypothesis which claims there is no relationship between these two variables is rejected. Thus, it can be said that: there is significant positive relation between weakness of rules and regulations dominating bank operations and making outstanding claims in Refah bank of Hamedan.

**Sub-hypothesis 5**: There is significant positive relation between non-cooperation of judicial and registration authorities and outstanding claim of Refah bank of Hamedan.

Table 6: Correlation coefficient between non-cooperation of judicial and registration

authorities and making bank debts

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.678 |
| Meaningfulness          | 0.000 |

According to the above table using correlation coefficient between non-cooperation of judicial and registration authorities and making outstanding claims we find that by increasing debts

derived from non-cooperation of judicial and registration authors, making outstanding claims also increases up to 0.678. Since the level of meaningfulness (0.000) is less than the assumed level  $\alpha$ -0.05, we conclude that the null hypothesis "no significant relationship between these two variables" is rejected. As a result it can be claimed that non-cooperation of judicial and registration authorities and making bank debts in Refah bank of Hamedan are related both positively and significantly.

**Sub-hypothesis 6:** there is a positive significant relation between the deadline for repaying granted facilities and outstanding demands of Refah bank of Hamedan.

Table 6: Correlation coefficient between incorrect choice of repayment deadline of granted facilities and making outstanding claims

| Title                   | Value |
|-------------------------|-------|
| Correlation coefficient | 0.721 |
| Meaningfulness          | 0.000 |

According to the above table using correlation coefficient between incorrect choice of repaying granted facilities and making bank debts we understand that by the increase of the level of debts derived from incorrect choice of the repayment deadline of granted facilities, making outstanding claims increases up to 0.721. Because of the smaller amount of the meaningful level (0.000) compared to the assumed level  $\alpha$ =0.05, we conclude that the null hypothesis which claims there is no relationship between these two variables is rejected. Therefore, we can claim that: there is a positive significant relation between incorrect choice of repayment deadline of granted facilities and making outstanding claims in Refah bank of Hamedan.

### **Discussion**

In the present research, in order to analyze effective factors in creation and increase of outstanding claims (doubtful) in Refah bank of Hamedan using statistics and information received from the branches office and branches of Hamedan and its statistical analysis with regard to hypotheses mentioned which affect creation and increase of claims and recognition of effective factors on non-payment of granted facilities of bank, test results are as follows:

- 1. There is a significant positive relation between assigned and demanded facilities and making bank debts of Refah bank of Hamedan. In fact, paying assigned and demanded facilities is effective in creating and increasing claims of Refah bank of Hamedan.
- 2. There is a significant positive correlation between changes and interest rate and making outstanding claims in Refah bank of Hamedan. It means that changes of interest rate in recent year that was done without considering inflation rate and the buying and selling system of the market affects the creation and increase of Hamedan Refah bank's debts.
- 3. There is a positive significant correlation between incorrect authenticity of facilities applicants and making bank debts in Refah bank of Hamedan. It means, lack of correct and appropriate authenticity of facilities applicants cause lack of on-time facilities repayment and creates and increases debts of Hamedan Refah bank.
- 4. There is a significant positive correlation between not receiving appropriate collateral from the facilities receiver and making outstanding debts in Refah bank of Hamedan. In fact, carelessness in taking the type of received collaterals from facilities receivers influences creating and making claims of Refah bank of Hamedan.
- 5. There is a positive significant correlation between weakness of rules and regulations dominant on banking operations and making outstanding claims in Refah bank of Hamedan. This

issue indicates the weak effect of rules and regulations dominating banking operations on making and increasing outstanding claims of Refah bank of Hamedan.

- 6. There is a positive significant correlation between non-cooperation of judicial and registration authorities and making outstanding claims in Refah bank of Hamedan. This indicates the positive impact of lack of appropriate cooperation of judicial and registration authorities on making and increasing bank debts of Refah bank of Hamedan.
- 7. There is significant and positive relationship between incorrect choice of repayment deadline of granted facilities and making bank debts in Refah bank of Hamedan. Actually, incorrect choice of the repayment deadline for granted facilities cause the repayment deadline to reach before establishing plans and it influences making and increase of claims of Refah bank of Hamedan.

#### Conclusion

Most of facilities paid by Refah bank of Hamedan (at all branches) during years 2008 to 2012 is related to residential and service sections. This issue depends on government policies in those years regarding assigned facilities payment: rebuilding and repair of rural houses, repairing the old context of urban houses, Mehr housing project and facilities in form of retail banking industry and the least payment share is related to an important and critical section of agriculture.

Most of claims of Refah bank (at all branches) during 2009 to 2012 are related to the doubtful class and in commercial and industry and mining sections. This issue in the commercial section can be derived from sanctions practiced by the western governments against Iran and in the industry and mining section can be due to lack of necessary and sufficient support from state agency from this section.

The best way to achieve correct and reliable information for bank claims, exact investigation and direct access to cases debts in branches and information and statistics of the offices of bank branches.

Fewest cases and the value of claims of doubtful class have been assigned and demanded facilities of Refah bank branches are related to 2012. This is derived from the changes of government and bank policies relative to the way of paying demanded and assigned facilities and approaches and policies taken to collect claims.

In all hypotheses represented, there is a significant relation between dependent and independent variables and in other words the relation and impact of the variables on creation and increase of doubtful claims in all branches of Refah bank of Hamedan is confirmed.

## Recommendations

- According to the findings of this research and analyses made, the following cases are offered to prevent interference of influential groups
- Making a mechanized system based on real documentaries of customer to prevent influential groups' interference
- Unifying the facilities rate in all monetary networks (bank) of country and harmonizing it with interest rate in the society
- Taking the income of banks and monetary institutes from commissions of providing bank services instead of incomes from the difference in facilities and deposits
- Producing comprehensive and up to date software from credential history of customers of country's banking network.
- Making and supervision and control mechanism over the health of accounting and auditing institutes by attending to their swearing formula in line with the state auditing office

- Making an electronic monitoring procedure out of the authority of the bank credit committees and the efficiency dominating outstanding debts on the credential decision making limits.
  - Clearing and harmonizing rules to facilitate the process of studying judicial cases.
- Evaluating the technical justification of financial projects and estimation of their risks to ensure loans' repayment
- Reducing inflation since high rate of inflation by cost increase leads to the profit decrease and income of economized institutes and consequently makes it difficult to provide resources to repay facilities.
- Adjusting interest rate of facilities with inflation rate and other financial indicators and reducing facilities' interest rate despite crimes cause that customers not to be inclined to repay facilities in the predetermined deadline
- Providing new banking rules and regulations to receive fair collateral from facility receivers
- Removing demanded facilities grant which leads to support of low-interest project without financial cost-profit analysis.

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