

Analytical survey of relation of customer credit risk with cost money in Yazd agriculture banks

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Abstract

Mobilization and allocation of investment resources to economic activities carried out by the credit markets, banking and financial markets as part of the market. This is done as the main role of banks in the financial market are done through credit customers. The population in this study was Yazd province Bank (50 branches) and sample was conducted of 50 chapters and sample census. The data from the financial statements for the five consecutive years from 2008 to 2012 bank branches is obtained. To analyze the data was used Spearman-Pierson correlations and multiple regression. These findings suggest that there is direct relationship between the credit risk, maturity demands, the pending demand s with the cost of money in Yazd Agricultural Bank and there is negative correlation between cost of money with receive demands

Keywords: credit, credit risk, cost of money, validation, and credit scoring

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Introduction

Performance of many countries shows that investment and economic development are closely related. Countries that have the efficient patterns at allocation of capital to different economic sectors are often economic development and higher social welfare. Mobilization and allocation of investment resources to economic activities carried out by the financial markets, banking credit markets is as part of the market. This is done as the main role of banks in the financial market are done through give credit to customers. So one of the important issues is investigate and assess the credit risk (the risk of default in repayment of loans granted by the customer). The measurement of this risk through the risks that the Bank faces a wide range of performance, is a special place. Reduction and risk control a san important factor to improve the process of credit and consequently raise the banks 'survival and essential role is in the continuity of facilities banks and financial institutions. Assess the significance of these risk factors can be mentioned the following:

A. Credit risk is the main cause of bank failures. If the customer does not repay your obligations on time, loans become as overdue the bank receivables and causing disruptions in the distribution of bank credit and finally disturbances in the country's economic.

B. Measuring the credit risk with a prediction of credit losses of non-repayment and make of a negative relationship between risk and return, the possibility of optimizing the composition of credit portfolio, asset pricing and economic capital of banks to reduce capital expenses, and to remain competitive and the banks and credit institutes some kind of advantage provides;

C. On one hand, banks activity is based on in interest-free banking law and Islamic contracts and therefore can not distinguish border between money market and capital. On the other hand, according to the country's economic structure, capital market operations (securities and stock markets) and other non-bank channels, is not considerable progress so significant part of the investment is done by banking market. It is important to the success of banks in this State;

Iv. In the interest system after the loan, the bank is cut off communication with the money and the bank regardless of the type of business, will demand the principal and interest of their money; Thus, taking a sufficient guarantee, does not need to accurately assess the customer (and if the evaluation is performed, in order to facilitate transactions and selected better customer), while the Islamic banking system, the bank is partner of receiving facilities in the economic activities and given share of person is considered as a warranty. Therefore, resource ownership –lawyer, evaluate customer refund is important. In spite of this, unfortunately, in Iran in granting credit facilities to customers with a consistent and orderly process to determine the credit risk rating scale for determination of credit ceilings are not considered on risk indices and indicators is carried out by the committee credit and expert's diagnosis. Having an efficient risk model not only facilitates decisions about credit and obtaining collateral; But also reduce the transaction costs the bank system to be efficient model in allocating capital to different economic sectors. Credit risk is the main risk is. In general, the logical

connection between risk and return will be a major factor a top timal resource allocation and ensure profitability(Fallah and Mahdavi, 2010).

A review of the literature of topic Accreditation

With the continuous and dynamic development of credit industry, industry will play a more important role in the country's economy and the creditors in order to develop the credit management process are used new tools and technologies .Validation and assessment of repayment capacity of customers by using advanced and new statistical techniques are the efforts that have been made in this area .Validation is evaluate and assess the capacity of costumers repayment and financing facilities and the possibility of non-repayment of funds received by them. Today have developed systems to validate customers such' credit scoring 'and' customer credit ratings " (Yangloee, 2001).Occurrence of banking crises in industrialized countries in recent decades, especially in developing countries due to such volatile deposits, an increase in deferred receivables, banks, the economic downturn and so disrupt in financial markets and provide the bankruptcy of many banks .During the evaluation, the main happening reason is identified lack of capital adequacy of banks. The concept of risk and management is further reflected (Hemmati and Mohebinejad, 2009).Cost of money in the bank depends on several factors, the most important factors in determining the cost of money are operating non-operating funds .So one of the ways the trust of customers are motivating them to deposit further and away from the false market by increasing earning rates commensurate with the Inflation rate .Development administrative and personnel costs due to inflation and increased costs related to doubtful receivables included the items that will increase non-operating expenses and consequently will the cost of money (Karimkhani ,Forati,2012)

2-1. Credit Scoring

Credit scoring is a system by which banks and credit institutions by using information from current and past applicants shall assess the probability of loan non- repayment by him(Yangl0ee, 2001). In other words ,score means the default quantitative of probability in the future .This approach are ratings customer credit based on unbiased and quantitative data.

3-1. Credit risk

Credit risk is the oldest and largest threats that exist in trade, the fuel risk credit granted and the loan recipients that defaulted on debts owed by arises is one of the biggest management risks .It is obvious that primacy of credit risk associated with economical mechanisms and, consequently, most of the banks consider ' internal ratings system for improvements borrowers. Credit risk will be achieved the uncertainty in determining a partner's ability to achieve its objectives .. Increased

diversity in the types of partners and a wide variety of forms, functions are types of credit risk management and have been transferred to the head of risk management activities and are used by companies in the financial services industry (Shamsodin, 2010).

Credit risk indicators:

When facilities based on criteria must be vigilant it comes to action, it is necessary to identify indicators of credit risk facilities. The indicators are divided into two categories: credit information and financial statements:

- A) Credit Information: Information that users' evaluation approve or reject the results of past and present events or expectations about future events of economic unit, Credit information index are classified as follows:
- B) 1-Work experience of the applicant, 2-Capital3-The amount of the returned check, 4-The amount of obligations too their banks, 5-extent of collateral
- C) financial statements: To evaluate the financial condition of borrowers and determine their ability to repay their obligations, there are various tools and indicators. One of these indicators to facilitate payment, various financial statements. Balance sheet and earning statement comprise basic financial statements.(Karami,2010)

Cost of money

One of the important factors that affect the prices of banking services and facilities are paid by the banks is cost of money in the banking system ,of course the price increase and decrease dependent a lot of reasons. Over the past few years due to expensive credit that one of the its reasons, according to banking experts and activists is cost raise money in banks always make the banking system has been criticized by consumers and entrepreneurs that expensive facilitator banks alongside others the problems they have faced with many obstacles.

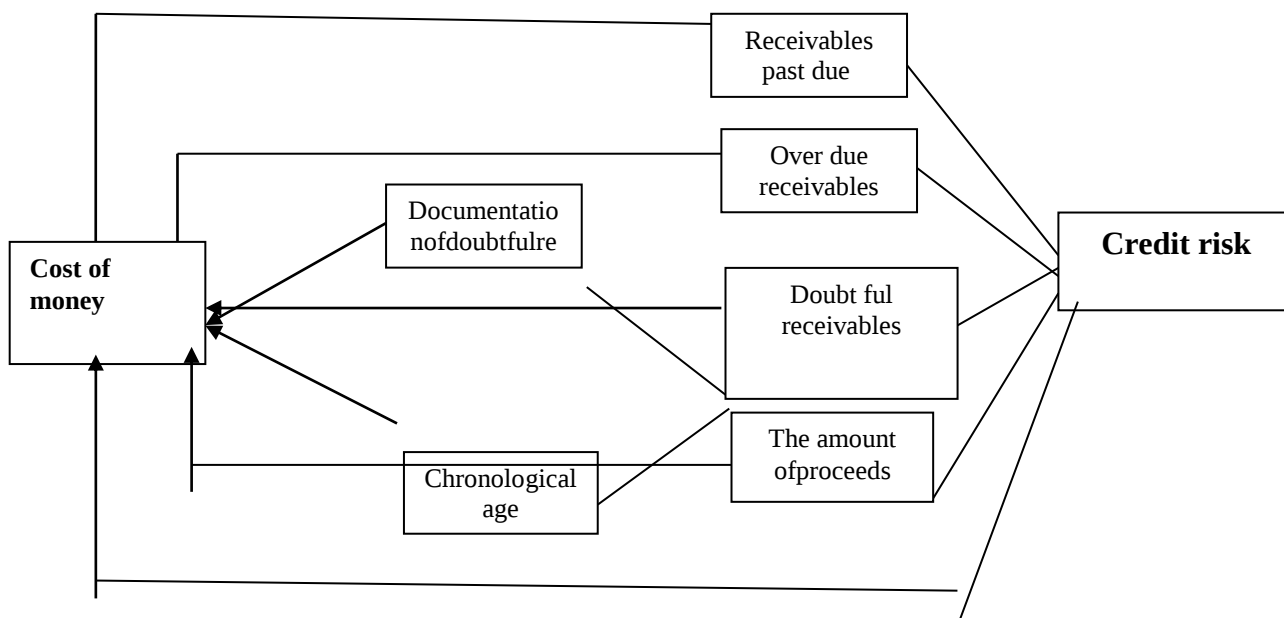
Affecting Factors to the cost of money

Cost of money in the bank depends on several factors, the most important factor is operating and non-operating cost. Operating costs include all costs that may be suffered by banks for Attract deposits mainly related the earning paid on customer deposits. Costs of operations , including administrative and personnel costs ,depreciation costs of movable and immovable property and doubt full receivables .Increase inflation, operating and non-operating costs of banks, while at the same time increased with the increase of applicants receiving facilities, incur unexpected costs will be the increased cost of operating banks in order to maintain their profit margins, will pay a higher rate new facilities to

applications . On the growth of operating costs can be argued that when Interest rates on deposits are lower than inflation ,deposit or sin the banks do not want to depositors, Because inflation reduces their purchasing power and decreases value of money. Silva and Divinu (2013) conducted a study entitled "The role of the banking laws in an economy of credit risk and liquidity shock" did in Brazil. Results of this study showed that credit risk is the risk of default depends on the structural features .Accordingly bank policymakers can adjust policies to promote financial stability and efficiency, reduce fluctuations in output .Paula et al(2012) conducted a study entitled "Evaluation of credit risk and the impact of the new capital accord Base lines small and medium enterprises: an empirical analysis" showed that the risk of non-default probability in the next year, subject to increase profitability, liquidity ,cover ,and reduce the operating leverage. Smaller companies and those associated with a higher risk of default ,the bank probably will. The findings suggest that a major bank to enter implementing policies to reduce risk through margin increases that were previously too high, it is very motivated.

Conceptual model

Criterion variable Predictor variable



The main hypothesis of this study:

there is a significant relationship between the credit risk of the customers with cost of money in Yazd province bank,

The secondary hypotheses of research:

there is a significant relationship between receivables overdue with the cost of money in the bank Yazd province bank

there is a significant relationship between Receivables pending with the cost of money in Yazd province bank

there is a significant relationship between Recoverable amount with the cost of money in the bank Yazd province bank

Methodology

This study aimed to investigate the correlation between credit risk according to the customers with 'cost of money is the Agricultural Bank, is descriptive correlation method.

The population in this study is Yazd Branch of the Agricultural Bank, 92 branches in five consecutive years from 2008 to 2012. The sample included 50 Yazd Branch of the Agricultural Bank sample census was conducted.

The method of data analysis is the Pearson correlation test.

Credit risk, including over due receivables, defer red and remains doubtful for the whole facility is divided into automatic bank risk is represented obtained. (Jamaat and Farid Askari, 2009)

Standard credit risk in banks is five number but in Iran for various reasons, credit risk is much higher the figure.

1 - total account balance of current and non-current receivables after deducting the balance of guarantees or collateral demands of our current 5/1% of the general store

2 - Balance past due receivables that are more than 2 months and less than 6 months have passed their maturity from 10% applied to the type of collateral or guarantee a specific store

3 - Balance claims pending for more than 6 months and less than 18 months past their due after application of collateral or guarantee equal to 20% store.

4 - Doubtful receivable account balance that is more than 18 months and less than five years after the imposition of collateral or a guarantee a particular 15% store.

5 - doubtful receivables account for more than 5 years past their due bond or guarantee, 100% after applying a particular store (adoption of a Council of Ministers, 2009).

Cost of money

$100 \times \frac{\text{Total costs of non-interest} + \text{The total cost of interest}}{\text{Used resources total of money}}$

Interest costs: Included deposits interest, financing costs and bonuses of savings loan, It is explained that the cost of financing is the costs that the credit balance of center account from bank input and output Operations. has been awarded to the left as far as revenue goes to debt capital account.

Non-interest expenses: is include administrative costs, staff costs, depreciation and doubtful receivables

Total resources used include total bank assets or liabilities that are extracted from the financial statements of banks.

The total calculation of the age range is calculated with the calculation of the cost of money in a fiscal year can be achieved. Of the National Bank internal memos

Results

Analysis of research hypotheses

There is relationship between the credit risk of customers with Cost of money in Yazd province bank.

There is relationship between all the overdue receivables with cost of money in Yazd province bank.

There is relationship between pending receivables with the cost of money in Yazd province bank.

There is relationship between Correspondence with the cost of money in Yazd province bank.

As can be seen in the table below, the relationship between credit risk, over due receivables, pending receivables, the cost of money is equal 392/0, 684/0, 793/0, 655/0-, 791/0, 698/0, 899/0. With significant respectively(011/0, 003/0, 002/0, 008/0 001/0, 002/00 and001/0) and because significant the yare smaller than the significance level were ject the lack of assumption and therefore that there is a positive correlation relationship between credit risk, over due receivables, pending receivables with the cost of money .Means with increases in these variables, the cost of money in National Bank of Yazd will increase, and between collected with cost of money is suit all negative and significant inverse relationship .The increasing cost of money with collected in Yazd Agricultural Bank reduced.

Cost of money				Variable
Type of Relationship	Relationship	Significant	Pearson's correlation coefficient	Variables
Direct	Ok	0.011	0.392	Credit Risk
Direct	Ok	0.003	0.684	Receivables over due
Direct	Ok	0.002	0.793	Over due receivables
Indirect	Ok	0.008	- 0.655	Recoverable amount

Discussion and Conclusion

According to the survey 7/83 percent of the remaining non-current receivables are concentrated in four sub-sections, thus validating subsection 42%, agriculture with 1/30 per cent, industries outside of the 9/6 to per cent, and agricultural services 7/4 percent, are allocated the biggest share of the remaining non-current receivables to the province. The maximum credit risk related to in dustury sectors outside

of the risk 9/23 show few signs of risk associated of agricultural trade with a 1% risk. 58 percent of non-current receivables at doubtful floor, 13% percent at suspended floor and 29% in class in overdue receivables. The maximum credit risk related to industry sectors outside of the risk 9/23 show few signs of risk associated of agricultural trade with a 1% risk. agricultural services, despite having a high proportion of non-current receivables due to higher pay, the risk is lower than average. 83% of past due receivables, 79% of pending receivables and 89% of doubtful receivables are focused

On department of horticulture, agriculture, industry, outside of, the water, so in business services.

Credit risk of 2008 to 2012 five fiscal years is as follows:

Year 2008 : 4/15	year 2010: 3/21	year 2012 : 11/9
Year 2009: 7/25	year 2011 : 8/16	

Cost of money of 2008 to 2012 five fiscal years is as follows:

Year 2008 : 2/11	year 2010: 8/16	year 2012 : 9/13	year 2009: 6/14	year 2011: 4/10
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In 2009 the rate of decline in the cost of credit risk did not decrease below is brief.

1 - The amount of the proceeds are greater than the level of overdue and deferred that doubtful receivables expenses were paid less than the floor it is doubtful

2- Considering the fact that in 2009 most of receipt of the location of extended facilities drought so the receiving facility paid virtually no effect not central account (cash paid on collection receipt has not) as a result it is not impact fees to finance the cost effectively.

3-in other years except 20012 direct impact in reducing the cost of money and credit risk reduction is clearly visible. According to the Central Bank of the Islamic Republic in 2012 interest rates of deposit have risen significantly in regard to the rest of the end of year do not have a significant impact. However, increases in interest costs that increase the cost of money has a significant role. Outer graph is disconnected although credit risk declined, the cost of money has increased.

The following table should be identified much and precedent costs and supplying financial center as well as the to talamoun to financial costs.

Percent interest on deposits to total deposits in 2008 to 2012 is as follows:

2009	23/96%
2010	24/04%
2011	40/77%
2012	50 /90%

Additionally, due to increased interest rates changed interest rates on Yazd. share of interest-bearing deposits and the composition of the deposits is simulated as follows.

27/5 %Ungainly	{	Current Account	11/4%
		Company Current	4%
		Current Mehr Gostar	5/2%
		Savings for women	3/7%
		Current agricultural	3/2%
72/5 %Interest-bearing	{	Savings loan	14/6%
		Types of short-term	22/5%
		Types of long-term	28/6%
		Tabasom Plan	5%
		First Fund	1/8%

As can be seen desire of investors increased to the interest-bearing deposits and the share of the sede posits is 5/72% the cost of interest banks have been high and subsequently cost of money increased. It is recommended:

1 - All regulations should be considered in the receipt payment that the bank is not difficult. Considering the order of doubtful receivables, pending and overdue have the greatest impact on the cost of doubtful receivables is recommended.

2 – The bank strategic objectives at the credit risk reduction should focus on more in order to attain a doubtful receivables, receivables overdue and pending receivables since reduce doubtful receivables expenses in the bank rate.

3-According to the calculation of the effect of the guarantee facility cost doubtful receivables is recommended when possible payment facility should be used of the type of property collateral backing, bond and cash deposits. Considering the impact of paid work to finance the remaining capital cost of money is effective.

4 - Balance Center considered to be bank managers.

5 - With regard to the issues raised by the summary and conclusions neither deposit facility should be determined based on the cost of money to the banks cost of money is equivalent

6-also, for the transparent transfer fees doubtful receivables overdue receivable facility to the season, in due time shall be deferred.

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