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## Studying the Impact of the Effective Components of Managing Recession Due Money Value of Bank Earning Structure (Case Study of Saderat Bank of Iran)

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## ABSTRACT

Today, banks are of the largest financial intermediaries and of the important elements of financial structure in economic systems, so that they form one of the main focuses of financial crisis which it would cause trouble for earning structure of these institutions if these crises aren't managed properly, so the current research was gathered with the aim of determining effective components of managing recession and what is the effect of managing recession components on non-collective earning of banks, in this research we study the relationship between non-collective earning of banks along with effective factors on crisis to achieve the aims of activities diversification and this is done in such a way that can control crisis and also presenting suggestions on how control these crises factors by managers and bank experts forms the basis. The current research community consists of 1200 managers and experts of Saderat bank branches in Tehran, that 291 of them have been selected as sample volume by cluster & random sampling method. At first, we analyze obtained data by questionnaire by applying descriptive statistics and then it is analyzed regarding obtained statistical data about bank earnings (case study of Saderat bank of Iran) in 2011 and assessing the impact of inflation on bank earnings.

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## INTRODUCTION

Now a days, banks are of the largest financial intermediaries and of the important elements of financial structure in economic systems, so that they form one of the main focuses of financial crisis, for this reason a common way to assess crisis in a community is its financial systems and specially banks by considering the strength of banks' balance sheets facing crises and risks which endanger resource management and banks consumptions systematically. Regarding this issue and for crises developed in global economic and its impact on countries' economic, it has been caused that banks are placed at risk of these crises as fundamental bases of each country's economic and this is observable in our country too. Banks are of important and administrative institutions of country economy in such a way that their proper performance and their purposeful and beneficial activities cause economic development. In order that banks can achieve the aims of economic development, they should optimize their activities and to do so they should regulate their activities Proportional to predicting financial and economic crises, furthermore, economic developments and moving toward global economy make banks to diversify their activities range till the profitability of new activities in normal and critical conditions are studied. Earning structure of banks inside our country is categorized into two groups of collective and non-collective earnings regarding Islamic banking. Due to the global economic crises that have plagued our country economy, the earning structure of banks has encountered problem to some extent, and of course the reason for applying the phrase "to some extent" is that Iran banks have government structure more and for having such structure and supporting from government and budget are less involved in mentioned crises. The main aim of this research is the study of effective components of managing recession due national monetary value and economic security and what is the effect of managing recession components on bank non-collective earning. It should be mentioned that non-collective earning is obtained by non-lending way which includes Earning from investments and the earning from fees (Khavari, Mahmoodreza, 2010).

Banks difference from other financial organizations is that banks present products in deposits and loans, the product resulted from deposit is that the bank pays money every time according to application and this part of product is considered (due to deposit) so bank is in charge of managing debt and finances and it shows the fundamental role of these organizations in communities, on the other hand, with today turbulent and conflict environment, we should try to confront and control them when facing with the crises which disorder organizations and pass through them by a strong leadership. On the other hand, in our society regarding special

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economic conditions and effectiveness from global systems, the necessity of studying how to manage crisis in banking structure is highly significant (Khavari, Mahmoodreza, 2010).

### 1. *Subject literature:*

World moves toward forming global village, we live in a global community whose components have been related to each other by a highly complex system. In this economic and complex system of world, banks are an economic major factor in all countries specifically in countries which have based bank economy and developing countries. The difference between banks and other financial organizations is usually is that banks present products in deposit and loan, the product resulted from deposit is that the bank pays money every time according to application and this part of product is considered (due to deposit) so bank is in charge of managing debt and finances and it shows the fundamental role of these organizations in communities, on the other hand, with today turbulent and conflict environment, we should try to confront and control them when facing with the crises which disorder organizations and pass through them by a strong leadership. On the other hand, in our society regarding special economic conditions and effectiveness from global systems, the necessity of studying how to manage crisis in banking structure is highly significant (Mani, 2012).

#### *1-1 categorizing crises:*

##### *1-1-1 categorizing crisis in "parson's point of view":*

1. Instant crises: these crises don't have any previous warning sign and organizations aren't able to investigate about them and plan to remove them.
  2. Crises which appear gradually: these crises are created slowly. They can be stopped or limited via organizational proceedings.
  3. Continuous crises: these crises last for weeks, months or even years, strategies facing these crises in different situations depend on time pressures, control extension and massiveness of these phenomena.
- We can use these 3 criteria: threat level, time pressure and phenomena intensity in categorizing and identifying crises and we can show managers when a phenomenon or problem is converted to crisis (Rezvani, Hamid, 2011).

##### *1-1-2 categorizing crises in "mitraf" point of view:*

He uses 2 spectra to categorize crises. One spectrum identifies the internality or externality of crises, means that a crisis happens inside an organization or outside; other spectrum shows technicality or sociality of crises.

#### *1-2 scientific management of crisis:*

Intensity and dimensions of some crises are to the extent that human being should confront unexpected events by applying his knowledge, wisdom, logic and initiatives, scientific management of crisis has been created to take advantage extensively of all effective factors in optimizing reduction of damages due to crisis and confronting it. Crisis management performs dynamically overtime and apply time factor by its own formulas. Preparation of affected areas in time is done by crisis management systems. Crisis managers should lead a critical situation toward a normal one with the least damages by correct and effective methods of crisis management (Mitroff, 1987).

#### *1-3 characteristics of crisis management:*

Crisis management features can be outlined as follows:

1. It encourages Voluntary participation of people in preparation affairs, confronting crisis, aiding, reducing crisis effects, Reconstruction and normalization.
2. It is informed of damaged needs.
3. It cares to developing operations confronting crisis & preparation.
4. It achieves profitability with sympathetic consideration to the needs of its employees.
5. It applies the philosophy which is based more on their leaders and people value.
6. It starts an act that has the best information about it.
7. It has a simple organization and a small number of office staff.
8. It does the things in a non-centralized manner proportionally.
9. It respects social, cultural and local customs and traditions.

Managers can work better by applying organized awareness about management and this organized awareness, Basic or advanced, accurate or inaccurate creates knowledge to the extent of its own organizing, clarity and appropriateness. Thus, management is an art as an action; we can call knowledge the organized awareness which is the underlying manager's actions. In such field, knowledge and art complete each other. So crisis management is both knowledge and art. Effective management is an art which uses the underlying knowledge of management (Rezvani, Hamid, 2011).

#### 1-4 Iranian banks in danger of global crisis:

The issue of global economic crises is very important. Most of us think this is the first time the crisis has happened, while we look back at the world economic history, we find that these crises were numerous and haven't occurred in a special place of world. The crises are resulted from an economic turmoil between monetary and real parts performance and that how this economic turmoil occur and how they are prevented and that where are in this crisis is a serious issue. Are we influenced by this crisis or not? How are these crises created?

Jens and et.al studied 134 banks to reduce financial risks in 2011 and concluded that banks face with different risks for the regulatory weakness and they suggested using banks merging method to reduce the risk (Jens, 2011).

Viral and et.al studied bank portion and that how they impact on the formation of asset price bubbles when there is accessibility to ample liquidity and concluded when banks lack high liquidity, there is risk for macroeconomic. By reducing direct investment and more bank deposits & also reducing sensitivity of banking payment to downside risks & it will cause inducing excessive credit volume and asset price bubble (Viral co, 2012).

Jeremy and co studied the way of financial rules and regulations in a research in 2011 and expressed that the macroeconomic cycles are better processed in front of the political pressures in response to periodic demand by borrowers and lenders during the recession, the regulation of economic activities is managed more logically (Jeremy & co, 2011).

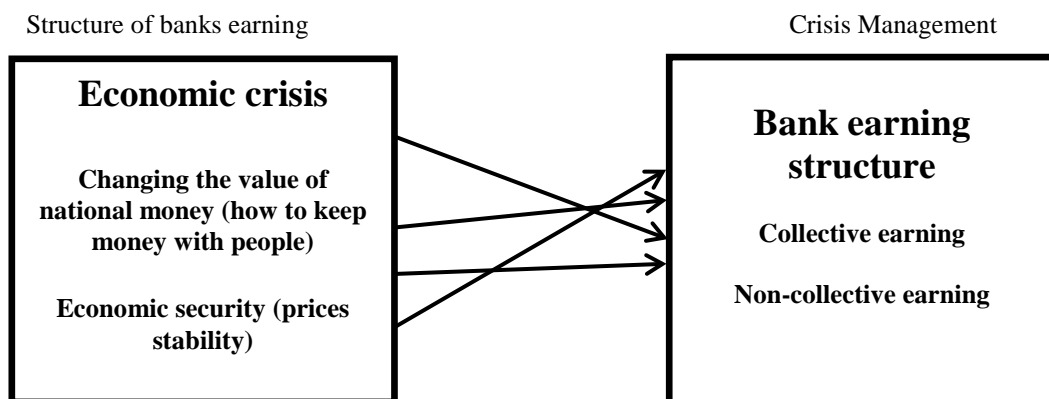
Mayerz and Houlosha researches in 1988 about crisis management showed that most senior executives don't want to think about crisis because they count crisis equals to poor management. In their point of view, crisis attacks organization structure and it causes focus oriented & causes trouble for information circulating flow inside organization (Mayerz & co, 1988).

Abbasi (2009) did a research in Iran oil national co as crisis management & studied it in Iran oil national co, which has the most share in Foreign exchange earnings of country & finally designed a model for crisis management process (Abbasi, 2009).

Imami far Mohsen has represented a research entitled "studying organizational communication impact on crisis management of cooperative development banks of Mazandaran province. The research results show that presenting any information such as accessibility to on-time, appropriate, correct, complete and quick information has impact on crisis management of cooperative development banks of Mazandaran province. But feedback and communication channels have no impact on crisis management of cooperative development banks and finally it was cleared that organizational communication has impact on crisis management of cooperative development banks of Mazandaran province; at the end of this research suggestions have been presented to improve effective factors (Imami far, 2011).

#### 2. Conceptual model of research:

By considering models and evaluating them, suitable model with research issue was obtained which its general overview is as follow:



As it is observed in model, we divided bank earning structure into two groups of collective and non-collective earning and studied two components of economic crisis management, as there are many variables in economic crisis management issues and there are different segmentations; but finally the most important variables is that they impact on both two earning groups. On the other hand, it was pointed to two groups of crisis in the column of types of crises; economic crisis has come independently regarding its significance and its relationship with bank functioning; totally, there are four variables in this diagram which are related to each

other and division was done among inside of each variable to clear the issue; impact of each component on dependent variable is equal in the model.

- Each of economic crisis management components resulted from the value of national money has significant impact on the structure of bank earning.

1- Reducing economic security has significant impact on bank collective earning.

2- Reducing economic security has significant impact on bank non-collective earning.

Changing the value of national money has significant impact on bank collective earning.

3- Changing the value of national money has significant impact on bank non-collective earning.

### 3. Research methodology:

This research follows studying relationship between two variables, components of crisis management (independent variable) and the structure of bank earning (dependent variable) and it was used of two library and survey (questionnaire) methods to gather data. At first, the whole topics around the issue were gathered and evaluated & it was administered like pilot in the field phase of open questionnaire and the main (close) questionnaire was regulated based on obtained data. To do a 6 years period research from 2006 till 2011, we study Saderat bank of Tehran and evaluate the whole developments and crises have occurred in bank structure during these 6 years.

In this research, statistical community under study is experts and managers of Saderat bank of Tehran. In fact, the individuals are selected who have enough information about financial issues of society and Saderat bank. It was used of cluster and random sampling methods for choosing samples given the branches' span in statistical community of Saderat bank and around Tehran. Generally, about 1200 managers and 291 experts were selected as sample volume & questionnaire was given to them; according to hit backs of these questionnaires, 278 were completed and 13 questionnaires were returned blank and altered. In this research, 291 experts and managers of Saderat bank of Tehran have been selected as sample volume which this amount has obtained regarding the number of statistical community and evaluating sample volume via kook ran formula:

$$\left[ n = \frac{Nz^2pq}{Nd^2+z^2pq} \right]$$

$$\left( \frac{1200 \times (1.96^2) \times 0.25}{1200 \times (0.05^2) + (1.96^2) \times 0.25} \right) = 291$$

To determine the content validity, questionnaires were presented to some management & behavioral sciences experts and professors and bank managers and experts of bank and they were asked about questions and evaluating hypotheses to confirm the validity of questionnaire. Reliability capability is one of the technical features of measuring tools which shows to which extent measuring tool gives similar results in the same conditions.

One of the methods of computing reliability capability is Cronbach's alpha coefficient, for calculating it, at first we should compute scores variance of each question and total variance of test, and then by applying the following formula we calculate its coefficient:

$$\alpha = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\sum_i s_i^2}{\sum_t s_t^2} \right)$$

In which  $\sum s_i^2$  is the sum of variances for each column related to each question,  $\sum s_t^2$  is the sum of variances for each row and k is the number of questions. According to digital calculations alpha coefficient equals to 0/866 which shows validity of questions.

After gathering data via special statistical software, the data are analyzed; at first the validity of research tool is measured by using validity and reliability coefficients like Cronbach's alpha and then we confirm or reject hypotheses by using descriptive statistical methods like Frequency distribution, graph, correlation & analytical methods table such as f & t coefficients by analyzing data.

Main hypothesis: economic crisis has significant impact on collective earning.

Secondary hypothesis:

1- Changing money value has significant impact on bank collective earning.

2- Reducing economic security has significant impact on collective earning.

- 3- Changing money value has significant impact on bank non-collective earning.
- 4- Reducing economic security has significant impact on non-collective earning.

#### 4. Research findings:

The respondents are 20% diploma, 26 % upper diploma, 70% bachelor and higher. 55% of statistical sample individuals are under 40 years old and 45% are more than 40 years old; 71% of respondents are men and 29% are women.

**Table 1:** Collective & non-collective earnings in the years 2006-2011.

year	Collective earning	Non-collective earning	Inflation rate	Sum of Earning
2006	16/125/611	7/717/837	13/5	23
2007	20/560/702	10/165/265	17/2	30
2008	24/318/383	12/931/567	25/8	36
2009	30/410/160	13/978/919	9/7	54
2010	29/787/525	16/994/479	15/2	45
2011	35/131/317	24/160/893	21/5	59

As data show in the table, the amount of collective and non-collective earning of Saderat bank has had an increasing trend from 2006 till 2011. On the other hand, the inflation rate has been marked by ups and downs during the last few years; the most inflation rate is in 2008. The following table shows correlation between inflation rate and bank earnings.

**Table 2:** Regression between two variables and collective & non-collective earnings of bank.

Variables model	The degree of correlation	sig
Collective earning and economic security	0/213	0/003
Non-Collective earning and economic security	0/447	0/001
Non-Collective earning and inflation	-0/129	0/807
Collective earning and inflation	0/111	./834
Bank earnings and inflation rate	-0/111	0/983

Hypothesis 1: reducing economic security has significant impact on bank collective earnings.

We use Pearson correlation index to prove this hypothesis.

R=0/213 sig=0/003

Hypothesis 2: reducing economic security has significant impact on bank non-collective earnings.

We note correlation index between economic security and bank non-collective earnings variables to prove this hypothesis.

R=0/447 sig=0/001

Based on the obtained correlation index, it has been proved that there is relationship between economic security and bank non-collective earnings.

Hypothesis 3: inflation rate (reducing money value) has significant impact on Saderat bank non-collective earnings.

According to the data in table, there is no relationship between non-collective earnings and the inflation rate from 2006-2011.

Hypothesis 4: inflation rate (reducing money value) has significant impact on bank collective earnings.

According to the data in table, there is no significant correlation between collective earnings and the inflation rate.

Main hypothesis: there is significant impact between inflation rate (reducing money value) and bank total earnings.

The correlation between bank earning and inflation rate is negative.

**Table 3:** Regression analyzing collective earnings and economic security.

	model	R2	F	Sig
Collective earning & economic security	regression	3/55	9/1	0/003
	remaining	74		
Non-Collective earning & economic security	regression	16/4	47	0/001
	remaining	65		
Inflation rate and collective earnings	regression	2/045	0/50	0/834
	remaining	0/164		
Inflation rate and bank earnings	regression	0/020	0/000	0/983
	remaining	/166		

As correlation index shows, there is relationship between Collective earning & economic security variables. Although, this relationship is poor, it is significant and this index is more in security feeling.

R=0/246 sig=0/001

**Table 4:** Regression analyzing model collective earnings and economic security.

model	Standard error	T	Sig
regression		3/64	0/003

Given regression calculating, f & t indices show economic Security Partnership with bank collective earnings variable.

**Table 5:** Regression analyzing model for economic security and non-collective earnings.

model	Standard error	T	Sig
regression		6/9	0/001

Regarding regression indices & f, T, the hypothesis 3 is proved based on relationship between economic security and bank non-collective earnings.

**Table 6:** Regression analyzing, inflation rate and amount of non-collective earning.

model	R2	F	Sig
regression	2/778	0/68	0/807

**Table 7:** Regression model.

model	B	Standard error	T	Sig
regression	-103	.397	-0/261	0/807

Given data in the table, there is no relationship between inflation rate and bank non-collective earnings.

**Table 8:** Regression analyzing model, inflation rate and amount of collective earning.

model	B	Standard error	T	Sig
regression	0/091	0/409	0/223	0/834

Regression analyzing between inflation rate and the amount of collective earning of Saderat bank shows that inflation rate has no share in bank collective earnings. So our hypothesis is rejected.

**Table 9:** Regression analyzing model, inflation rate and bank earning.

model	B	Standard error	T	Sig
regression	0/005	0/206	0/022	0/183

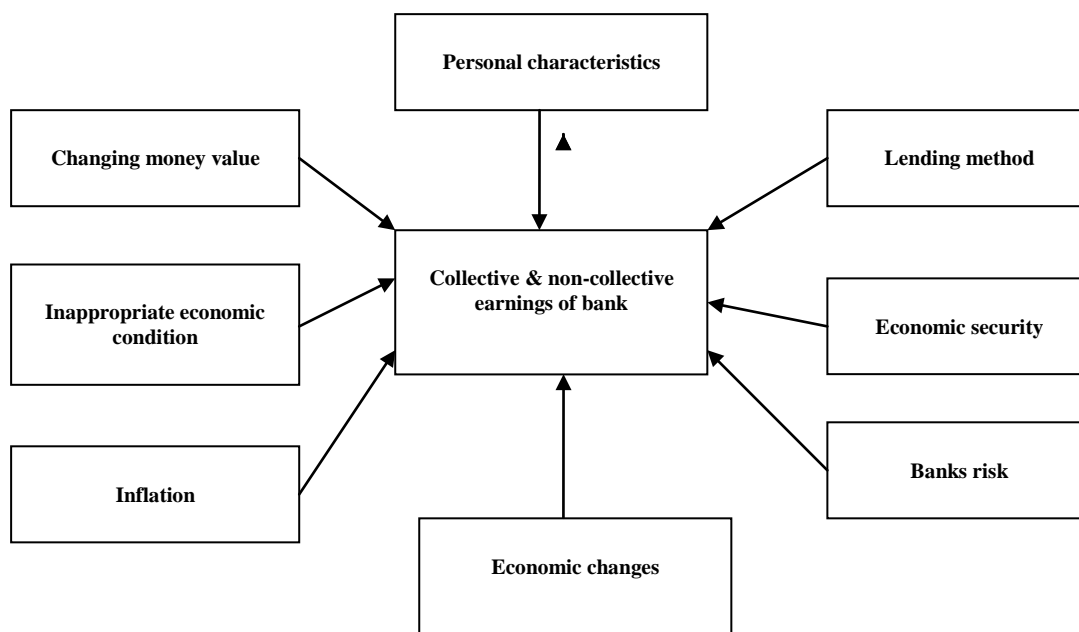
In regression analyzing, data show non-participation of inflation rate in bank earnings, so our main hypothesis is rejected.

##### 5. Conclusion:

In this research, two groups of data has been used, first group is questionnaire data which was completed by 278 experts and managers of Tehran Saderat bank, which was obtained via sampling by kookran formula method, according to experts and managers point of view the value of changing money is the most important effective factor in bank earnings (collective and non-collective) and other factors are presented in below diagram:

Totally, above factors express 66% of Saderat bank earning variance, the results of findings in correlation and regression analyzing parts showed that there is no significant correlation between inflation rate and bank earnings (both collective and non-collective) but there is significant correlation between cumulative inflation rate and bank earnings (both collective and non-collective), meaning that the more is the inflation rate, the more is bank earnings. In economic security part, significant relationship between bank collective / non-collective earnings and economic security is proved.

Variance analyzing was used to measure effective components on bank earnings (both collective and non-collective), contribution of each factor on dependent variable is measured in variance analyzing. It means that by changing each factor, what change is created in dependent variable. We see in variance analyzing table that 14 factors were obtained, share of each factor is according table. It is observed that 14 mentioned factors express 66% of dependent variable variance and the first factor and the most important one has created the most changing ratio in dependent variable. We describe 7 important factors below which express more than 50% of factors.



The first factor is labeled money value changing factor. This factor expresses 18% of dependent variable variance, on the other hand, the most important factor of reducing collective and non-collective earnings of banks and creating crisis in banks is for reduction of money value, because reduction of money value will cause:

- A) The profit of bank investments is reduced because investment costs are increased, so, the anticipated benefits are not realized in the investments projects.
- B) Customers participating benefits in direct & indirect bank investments are reduced, in fact, bank gains less benefit of done investments but it must pay more benefit to customers.
- C) If interest rate is less than inflation rate, bank profitability will be reduced. The sum of these factors lead to changing in money value for inflation, increasing foreign exchange specially dollar reduce bank earnings and it's the most important factor in financial crisis of Saderat bank.

The second factor is labeled inappropriate economic condition which expresses 5% of dependent variable variance; this factor refers to inappropriate economic condition of society, government policies, exchange and the way of communication with outside of the country, 6% of changes in bank earnings are affected by economic conditions.

The third factor is inflation. This factor has affected economic conditions in the last few years and also affected bank earnings and as it is observed in second part, it impacts highly on bank earnings and creating crisis in it cumulatively.

The fourth factor is economic changes. As we pointed in second factor, economic condition has direct effect on bank earnings and if economic changes occur quickly, the bank earnings will be increased or decreased normally.

The fifth factor is bank's risk. Banks should take risk to invest their resources in different projects and when the economic conditions is inappropriate the bank risk will be more and this factor impacts on collective and non-collective earnings of banks.

The sixth factor is economic security. Economic security is also related to above factors such as risk and inflation. In normal conditions that there is Economic security in the country, banks earnings is in different conditions and isn't fluctuated but in abnormal conditions that there is not economic security, banks earnings is fluctuated.

The seventh factor is banks' lending method. During the recent years, banks have landed money in different ways, sometimes they were entered investment projects directly, and sometimes they landed money to customers and paying loans had fluctuation in different times. There were times when banks landed money extensively and sometimes they didn't pay loans due to time limitation.

The eighth factor is personal characteristics of bank staffs which it expresses 3/4% of variance. As mentioned, 14 factors are in analyzing variance but for the first 8 factors are the most important, they are mentioned in analysis.

By describing variance analyzing of second phase which includes 24 questions of second hypothesis, we can divide effective factors on occurring crisis in banks into two groups:

Factors inside bank:

- ✓ Various risks of bank ( ignoring risk in paying facilities, existing divers risks outside the bank)
- ✓ Poor management in investment (investment in non-beneficial plans)

- ✓ Inappropriate investment (implementing long-term investment plans)
- ✓ Poor behavior with customer (keeping other investor's trust & customer's rights)
- ✓ Failure to observe customer's rights (supporting customer's rights)

Factors outside bank:

- ✓ Economic conditions out of bank (profitability of dealer market, economic high risk conditions)
- ✓ Economic conditions of society (inflation, high investment fields)

It is observed that inside of the bank factors have more effect on creating crisis in banks, of course we shouldn't neglect the role of outside of the bank factors.

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