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**THE EFFECT OF OWNERSHIP CONCENTRATION ON CAPITAL ADEQUACY IN
ACCEPTED BANKS LISTED IN TEHRAN STOCK EXCHANGE**

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ABSTRACT

Risk has ability to pose in any field and one of the most important fields is bank which is under special attention due to the special importance which it has in economy system. Ownership structure and ownership concentration can affect on variety of financial risks like intellectual capital. In this study also the intention is on the study of the amount of effectiveness of ownership concentration of available banks in Tehran Stock Exchange on risk index during period of years 2006 to 2012 with using of panel data method. The results of this research showed the effect of independent variable of shares ownership concentration on dependent variable of banking risk is positive and significant. On the other words, increasing the concentration and monopoly in shares ownership creates a kind of friability for stockholders and kind of fluctuation in shares return. In fact, banking risk and bank situation is depended to a few companies or investors and with changing the situation of those, the total situation of company will change very fast and this can increase the banking risk. The effect of total assets on dependent variable of banking risk is negative and significant. The effect of the ratio leverage debt variable on dependent variable of banking risk is positive and significant. On the other words, increasing the leverage ratio creates kind of uncertainly and fluctuation and distrust about shares which finally cause to increase the banking risk. The effect of unpaid bank loans on dependent variable of banking risk is positive and significant. The effect of growth incomes variable on dependent variable of banking risk is negative and significant. The effect of q toobin on dependent variable

of banking risk is negative and significant. The effect of shares fluctuation variable on dependent variable of banking risk is positive and significant. The effect of the amount of savings on dependent variable of banking risk is negative and significant. The effect of Gross Domestic Production growth per capita on dependent variable of banking risk is negative and significant. The effect of dummy year variable on dependent variable of banking risk is positive and significant.

Key words: Ownership Concentration, Intellectual Capital, Bank

INTRODUCTION

Recent financial crisis has affected one more time on the effect of expand behavior bank risk in global economic stability and its welfare. To avoid facing bankruptcy in banks, the manager acts to increase the intellectual capital in banks. People and institutions with interests, goals, investment prospects and different abilities form stockholders in each company. Due to the complexities that exist in handling company affairs, it is not expected by stockholders to get any responsibility for handling company affairs. Influencing the stockholders on the companies is only possible in public and it is concentrated in cases such as: approval of the financial statements, the selection board members and statutory auditor, amend the statute of the company, and approved the fantastic deals and etc (economic cooperation organization and development, 2006). On the other hand, some capital structures allow some stockholders to access the disproportionate amount of control with the ownership that

they have in company. All of these cases might be effective on the performance of the company, because many investors in investigating their const benefit of property right enforcement may be concluded that with logical amount of analysis and using of their income can reach to financial return and more capital growth. **Chalermchatvichien et al (2014)** in study entitled “the effect of banking ownership concentration on intellectual capital, liquidity and financial stability” have been dealt with the study of the effect of ownership concentration on banking risk behavior. In this study, it is concentrated on East Asian countries because these countries have performed successfully Bazel standard and have shown the high degree of regulatory convergence. For period of 2005-2009, the relationship between ownership concentration and intellectual capital (Bazel 3) has been analyzed. The main findings of this study show that increasing ownership concentration leads to improve intellectual capital in amount

of 7/64 percent. Also, results in this research show that ownership concentration can be one of the important factors in capital stability. While low levels of ownership concentration, an increase in the ownership concentration leads to a decrease in the capital stability; in the higher level of ownership concentration, an increase in ownership concentration leads to increase in capital stability. Also, it is observed that ownership concentration leads to improve liquidity for banks. At the end, it seems that recent financial crisis leads to change in general relationship among ownership concentration, intellectual capital and liquidity. **Bowo Setiyono and Amine Tarazi (2014)** in study entitled “disclosure, ownership structure and banking risk: evidence from Asian countries” have been studied the interaction of disclosure and ownership structure on banking risk. In this regard, it is used of data related to 209 trading banks in Asia during period of 2004 to 2010. The main findings of this research show that there is negative relationship between income fluctuations with information disclosure and

this effective is more intense in present of blocking stockholders and stronger institutional ownership. **Fawad Ahmad (2013)** in study entitled “ownership structure and non-operating loans: evidence of Pakistan” showed that dispersed ownership due to increasing banking risk leads to reduce banks performance while ownership concentration due to the decreasing banking risk has increased banks performance and consequently, credit traditional view has been confirmed for Pakistan. According to the presented studies in this article and with using of pattern of **Chalermchatvichien et al (2014)** has been dealt with to study the effect of ownership structure on intellectual capital index.

Determine and measuring the variables

This research is functional in terms of goal and it is descriptive analysis in terms of research method. For collecting data related to literature of topic, library method is used like books, magazines, articles, and thesis and for estimating model, panel data method is used.

$$\begin{aligned} \text{Bank Risk}_{i,t} = & \beta_0 + \beta_1 (\text{Ownership Concentration})_{i,t} + \beta_1 (\text{Ln(Total Assets)})_{i,t} + \\ & \beta_2 (\text{Leverage})_{i,t} + \beta_3 (\text{Revenue Growth})_{i,t} + \beta_4 (\text{Loan Loss Provision})_{i,t} + \\ & \beta_5 (\text{Tobin's Q})_{i,t} + \beta_6 (\text{Equity Volatility})_{i,t} + \beta_7 (\text{Deposits})_{i,t} + \\ & \beta_8 (\text{Log(GDP)})_{i,t} + \beta_9 (\text{Ln(GDP per capita)})_{i,t} + \text{Year Dummies} \end{aligned}$$

Dependent variable is banking risk which contains risk index to intellectual capital.

Independent variable is also shares ownership concentration.

Controlling variables are also total assets, the ratio of debt leverage, the situation of unpaid loans, incomes growth, qtoobin index, shares fluctuations, the amount of savings, GDP growth, production growth per capita, and year dummy variable.

First model estimation

To be able to determine the issue that whether using of panel data method for estimating model is efficient or not, F Limer test is used and for determining which method (fix effect and or accidental effect) is more suitable for

estimating (determining fix or accidental differences of sectional units), Hasman test is used. The results of these tests are presented in **Table (2)**.

According to the results of F Limer test and its P-value (0/0001), the model is estimated by fix effect method.

According to the obtained results of F Limer and Hasman test and also the results of classic regression statistical hypotheses test, model (1) of research is estimated by panel data method as fix effect method. The estimated results of model are presented in **Table 4**.

Table 1: Used statistical society in research

Mellat bank	1
Tejarat bank	2
Parsian bank	3
Eghtesad Novin bank	4
Kar Afarin bank	5
Sina bank	6

Table 2: Results of F Limer and Hasman tests for model (1)

P-Value	Statistical amount	Statistical	Test
0/0001	18/32	F	F Limer
0/0232	22/01	χ^2	Hasman

Table 3: the results of tests related to statistical hypotheses of model (1)

Statistical Ramsey		Statistical Durbin-Watson	Statistical Breusch-pagan		Statistical Jarque-Bera	
P Value	F	D	P Value	F	P-Value	χ^2
0/65482	0/2425	2/29	0/001	4/7606	0/32564	1/4570

Table 4: the results of examination the first model of research by fix effect method

Dependent variable:the ratio of intellectual capital the index for risk				
Effect	P-Value	Statistical t	Coefficient	Variable

Positive	0/0023	2/9453	0/3452	Intercept
Negative	0/0032	-3/3362	-0/1524	Shares ownership concentration
Positive	0/0021	2/7345	0/3223	Total assets
Negative	0/0001	-3/325	-0/2326	Debt leverage ratio
Positive	0/0012	3/0253	0/3832	Unpaid loans
Positive	0/0003	2/5463	0/5426	Income growth
Negative	0/0053	-3/7546	-0/1546	Qtoobin index
Positive	0/0031	2/2568	0/3785	Shares fluctuation
Negative	0/0001	-3/5763	-0/5462	Savings amount
Positive	0/0022	3/3546	0/7524	GDP growth
Positive	0/0035	2/9685	0/2145	Year dummy variable
0/7560	Determine coefficient model			
1/6546 (/0001)	Statistical F P-Value			

Investigating the significance of coefficient according to the presented results in **Table 4** is as follow:

One percent change in shares ownership concentration variable has caused -0/1524 percent decrease in intellectual capital variable. One percent change in total assets variable has caused 0/3223 percent increase in intellectual capital variable. One percent change in debt leverage ratio variable has caused -0/2326 percent decrease in intellectual capital variable. One percent change in unpaid loans variable has caused 0/3832 percent increase in intellectual capital variable. One percent change in income growth variable has caused 0/5426 percent increase in intellectual capital variable. One percent change in qtoobin index variable has caused -0/1546 percent decrease in

intellectual capital variable. One percent change in shares fluctuation variable has caused 0/3785 percent increase in intellectual capital variable. One percent change in saving amount variable has caused -0/5462 percent decrease in intellectual capital variable. One percent change in GDP growth variable has caused 0/7524 percent increase in intellectual capital variable. One percent change in year dummy variable has caused 0/2145 percent increase in intellectual capital variable.

CONCLUSION

AND

RECOMMENDATION

According to the results of research which show the effect of independent variable of shares ownership concentration on dependent variable of banking risk is positive and significant, it is recommended that to reduce banking risk of available companies listed in

Tehran Stock Exchange, shares ownership moves toward competitive and private sector from exclusively state. Also, with considering the results which show the effect of total assets on dependent variable of banking risk is negative and significant, it is recommended, to reduce banking risk of companies listed in Tehran Stock Exchange, bank assets should be increased. According to the results which show the effect of debt leverage ratio variable on dependent variable of banking risk is positive and significant, it is suggested to the bank management, to reduce the banking risk, they reduce the ratio of banking leverage. Also, with considering the results of research which show the effect of unpaid loans situations on dependent variable banking risk is positive and significant, it is suggested, to reduce the banking risk of companies listed in Tehran Stock Exchange, facilities management policies move toward decreasing the unpaid loans situation in banks. Also, with considering the results of research which show the effect of income growth on dependent variable of banking risk is negative and significant, it is recommended, to reduce the banking risk of companies listed in Tehran Stock Exchange, banking income should be increased. Also, with considering the results of research which show the effect of qtoobin index on dependent

variable of banking risk is negative and significant, it is suggested that to reduce the banking risk of companies listed in Tehran Stock Exchange, qtoobin index of bank should be increased. According to the results of research which show the effect of shares debt fluctuation variable on dependent variable banking risk is positive and significant, it is recommended to bank management to reduce the banking risk, they reduce shares fluctuation. According to the results of research which show the effect of saving amount on dependent variable of banking risk is negative and significant, it is recommended to reduce the banking risk of companies listed in Tehran Stock Exchange, management policies should move toward increasing the saving amount in banks. With considering the results of research which show the effect of GDP growth per capita on dependent variable of banking risk is negative and significant, it is suggested to reduce the banking risk of companies listed in Tehran Stock Exchange, management policies of macroeconomic of country move toward increasing GDP growth per capita in country. With considering the results of research which show the effect of year dummy variable on dependent variable of banking risk is positive and significant, it is recommended to reduce the banking risk of

companies listed in Tehran Stock Exchange, banking management policies move toward accepting this risk and companies move in competition among banks.

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