Investigating the relationship between corporate governance and financial performance of the banks listed in Tehran stock exchange

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A R T I C L E I N F O

A B S T R A C T

This research aims at investigating the relationship between corporate governance and financial performance of the banks. The components of corporate governance considered in this research include the percentage of government-owned shares, the ratio of non-executive managers to executive managers and the amount of ownership management, CEO tenure duration, and the separation of CEO President Position from the board of directors. The indices of financial performance include return on equity (ROE), and return on assets (ROA). The statistical population of this research is consisted of all the listed banks in Tehran Stock Exchange, from which seven banks were selected as the sample. Their data was collected during a 10-year time period (from 2004-13) using Rah Avard-e Novin Software and then the data was analyzed through regression and panel data analysis by Eviewes6 Software. The results of the analysis for the first model indicate that there is a significant relationship between all the variables of corporate governance except "the separation of CEO President Position from the board of directors". The investigation of the second model also shows a significant relationship between the indices of the percentage of government-owned shares, the ratio of non-executive managers to executive managers and the amount of ownership management, and return on equity.

1. Introduction

The system of corporative governance is the sum of a company's efforts toward value-creation for the shareholders. It is a mechanism by which the collective and individual interests of all the company beneficiaries are supported (Butt and Hasan, 2009). The main origin of the emergence of corporative governance mechanisms is the conflicts resulted from the formation of agency relationship. According to Jensen and Meckling (1976), the agency relationship, based on which one or more owners appoint another person as their agent and assign him the right of decision-making, imposes some expenditures such as the supervising the agent's performance by the owners, the obligation costs and the residual losses.

Generally, corporative governance includes legal, cultural and institutional arrangements that determine the direction and performance of the companies. The elements that play a role in this scene are shareholders and their ownership structure, the board of directors and their arrangements, the company management that is

directed by the executive manager or CEO, and other beneficiaries who can have an effect on the company movements. What is more remarkable here is the increasing presence of institutional and legal investors among the owners of public limited companies and the effects that this active presence can have on the governance of organizations as well as their performance.

The most basic element of corporative governance is to ensure the application of shareholders' right governance on the company. Nevertheless, in certain conditions the application of this governance is faced with some obstacles, especially for the minor shareholders. Thus, it is important to be aware of the ownership structure and its calibration in standard scales to be able to develop the required strategies in establishing the corporative governance.

In fact the primary goal of corporative leadership is to improve the company performance and align the shareholders' interests with managers' in order to solve the problem of agency. Corporative leadership mechanisms as a system help to balance the social and economic, individual and collective goals, and persuade and reinforces the efficient use of resources and makes the companies responsible

toward the beneficiaries. On the other hand, implementing the corporative leadership mechanisms can optimize the resource allocation and upgrade the company value, which finally leads to economic development and growth.

Corporative governance is an appropriate mechanism to control risk inside the corporation. After the recent financial crisis, bank supervisors and central banks argued that weak corporative governance can play an important role in financial institution risk-taking and as a result lead to the development of financial crisis. It seems that in developing countries the establishment of corporate governance in banks is more important than other financial institutions, because in these countries banks play a more remarkable role in economy than other financial institutions. Weak corporate governance in banks reduces their reliability in asset and liability management. Therefore, investigating the effect of corporate governance on the performance of banking system is of utmost importance (Taghavi et al., 2013).

It seems that the ownership structure and the management structure of banks and financial institutions (corporate governance) can affect the managers' decisions on granting loans and make some changes in the performance of financial institutions. Therefore, given the above-mentioned information, we are seeking an answer to this question: is there a relationship between financial performance of banks and the components of their governance?

Since, according to the previous studies, there is a few non-bound members in the board of directors in Pasargad Bank, this research suggests that the structure of board of directors should be reconsidered, and the independent non-bound members should be invited in order to achieve the bank's goals in corporate governance and to minimize the interest conflict between the shareholders and managers.

It should be noted that, according to *Banker*, Pasargad Bank is the only Iranian bank that is listed among the top 25 middle-east banks, and this bank won the silver icon of the fourth national competition of financial management in Iran because of its managers' appropriate financial performance.

2. Theoretical background

Corporate governance is a network of principles and policies, according to which a company is organized and governed so that the long-term needs of its shareholders and beneficiaries are perfectly met.

Dedu and Chitan (2013) in their empirical study analyzed the effect of internal corporate governance on the performance of banks in banking department of Romania – organizational structure, committee structure, risk management, internal control framework and organizational transparency. After processing the collected data from financial

institution websites using a multi-regression model, the results are shown as the following:

1) There is a negative relationship between corporate governance and bank performance;
2) The number of independent members of management body should be increased; and
3) The commercial behavior of shareholders should be changed in order to reduce the credit risk.

Al Manaseer et al. (2012) investigated the effect of corporate governance on the performance of Jordanian banks. The indices of board of director's size, board of manager's structure and external ownership were considered as the components of corporative governance. The results of this study indicate that there is a positive relationship between the components of corporative governance, i.e. the board of director's size and external ownership, and the performance of Jordanian banking system. The board of director's size and the separation of ownership from management have a negative relationship with the performance of the banking system in this country (Al Manaseer et al., 2012).

Peni et al. (2013) have examined the effect of corporative governance *in* banks on granting credit to mortgages and the amount of doubtful receivables during the financial crisis. The results indicated that the banks with stronger corporative governance *mechanisms* have a higher profitability index. As such, the effect of corporative governance *on* granting credit to mortgages was complex and dependent on the definition of the crisis. However, the banks with stronger corporative governance *experience* a lower amount of doubtful receivables. After the crisis in mortgage market, the banks with weak corporative governance *reduce* their risk-exposed mortgage loans (Peni et al., 2013).

Allen et al. (2011) investigated the relationship between corporative governance *and* stability in banking systems of EU member states. To this end, the relationship between mother banks and their branches in other countries is investigated. Many foreign branches have a higher liquidity than the domestic banks of the host country, and create instability in the banking system of the host country by transferring cash to their mother country. It is shown that a lack of appropriate corporative governance *to* support the host country financial market leads to such a crisis (Allen et al., 2011).

In another article, Ermina and Maria (2010) investigated the relationship between banking performance and corporative governance in European, American, Australian and Japanese banks. The findings of this article show that there is a venial and negative relationship between banking performance and corporative governance, but there is a strong and positive relationship between banking performance and financial leverage and economic growth. Also, the findings of this article indicate that there is a positive relationship between internal shareholders and banking performance, which shows that the more shares are owned by the internal employees of a bank, the board of directors

and major shareholders, the better performance the bank will have (Ermina and Maria, 2010).

Wen (2010) has investigated the relationship between ownership concentration and banking performance in China. Two indices, return on assets and return on investment, are used as the banking performance and banking profitability indices. The results of investigating the effect of ownership concentration on the performance of three classes of banks, public commercial banks, commercial banks listed in stock market, and private commercial banks, indicate that there is no linear relationship between the two indices (Wen, 2010).

Kim et al. (2010) have measured the effect of state, private, and foreign ownership on the banking system performance. The results indicate that, before the financial crisis, foreign-owned banks have employed corporative governance better than state and private banks, thereby they have had a better performance, but after the financial crisis, the private-owned banks have been successful in implementing corporative governance mechanisms and their performance indices have improved in this period (Kim et al., 2010).

Taghavi et al. (2013) investigated the effect of corporative governance on the stability of banking system in developing countries using a sample of 40 developing countries during 2000-2011. In this research, the effect of the ownership structure in banks, as a criterion of corporative governance measurement, on the stability indices of banks in developing countries was considered. The results of this study indicated that state ownership has a greater effect on increasing the delayed receivables than private and foreign ownership. However, foreign ownership performs better in profitability ratios than other ownership structures (Taghavi et al., 2013).

3. The research hypothesis

Hypothesis can be defined as a logical relationship between some variables that is stated as a testable sentence. These relationships are considered on the basis of a network of relations that are rooted in a developed theoretical framework for the research. As it was mentioned, this research seeks to investigate the effect of corporative governance on the financial performance of banks and the hypnosis's are formed as the following sentences:

Hypothesis 1: there is a significant relationship between corporative governance and ROA in banks.

Hypothesis 2: there is a significant relationship between corporative governance and ROE in banks.

4. Research methodology

This research is an applied research in terms of its aim, and considering the categorization of researches it is based on correlational researches. The research will be conducted in the framework of deductive-inductive arguments, thus the theoretical foundations and research background are collected deductively through library studies, journals and websites and the information for rejection and acceptance of the hypotheses are collected inductively. The statistical population of this research includes all the banks listed in Tehran Stock Exchange, a total of 11 banks, of which 7 banks are selected as the sample. Their data are collected using Rah Avard-e Novin Software during a 10-year period from 2004 to 2013. In this research, the systematic removal is used in order to provide a representative sample of the statistical population. The sampling process is as follows:

1. The selected companies must be among the banks and financial and credit institutions.
2. The fiscal year must end on 19 March, and there must be no change in activity or fiscal year during the period (2004-13).

The statistical population includes 11 banks in the stock market, of which seven banks were selected according to the above mentioned stages:

Pasargad Bank – Parsian Bank – Sina Bank – Eghtesad Novin Bank – Kar Afarin Bank – Saderat Bank – Tejarat Bank.

5. Data gathering tools

In this research the required information regarding literature, theoretical foundations and research backgrounds are collected through document mining, observation and library studies. The required financial information to measure the research variables were collected using the audited financial statements of the banks and financial institutions. as well as Tehran Stock Exchange and its related information banks, including Tadbirpardaz, Rah Aravard-e Novin information banks and the website of the banks and financial institutions.

6. Research methodology and model

The present research is an applied descriptive-correlational research. In this research a multi-regressive model is used. The dependent variables include abnormal operational cash flows, abnormal production costs and abnormal optional cost; and the independent variable is financial leverage. The company size is also used as the control variable. Next, the calculation methods for the variables are described; combined data are also used in order to test the hypotheses; in order to determine the Limer method, and if F method is used for model estimation (the panel or pooled method), Hausman test is used to select either constant effects method or random effects method. The results were analyzed by t, f and determinant coefficient tests. In this research, the following model was used to test the hypotheses:

PF= α+ β 1 corporative governance it + β 2 Control Variable it + ε it

where:

PF = the dependent variables (indices of banking performance);

ROE = return on equity;
ROA = return on assets;
CG = independent variables (indices of corporative governance);
CG1 = the percent of state-owned shares;
CG2 = non-executive managers to executive managers ratio;
CG3 = the amount of management ownership;
CG4 = the executive manager's tenure;
CG5 = the separation of executive manager position from board of directors.

The control variables considered to control the effect external factors on the dependent variables are:
FSIZE = natural logarithm of the assets book value;
LEVERAGE = the ratio of liabilities book value to assets book value;
e_{it} = model residual.

Research variables can be calculated as follows:
PF = the dependent variables (indices of banking performance):
ROE: this variable is also known as return on equity, and using this ratio the bank interest is calculated for each Rial equity interest, so that after tax deduction, the interest is divided into the equity.
ROA: this ration is the best ratio for management evaluation and evaluates the net income earned by employing the entire assets of the bank, and thus, it is less exposed to deviation than ROI. It is calculated by dividing the net operational profit into total assets multiplied by 100.
CG = independent variables (indices of corporative governance):

The percent of state-owned shares (CG1): this variable is specified according to nominal variable of the research; if the amount of state ownership is higher than 5% of the offered shares, the nominal variable is one, and if it is smaller than 5% the nominal variable is zero (Fathi, 2010).

Non-executive managers to executive manager's ratio (CG2): it is the ratio of non-bound to bound members of the board of directors. Bound members are those members of the board of directors who work as executive managers in the company and non-bound members are those who don't work as managers and merely possess a right to vote and attend the meetings of the board of directors.

The amount of management ownership (CG3): this variable shows the amount of shares owned by the members of board of directors (Hassas Yeganeh, 2006), i.e. how much share ownership is concentrated among the members of board of directors.

The executive manager's tenure (CG4): Jensen (1986) argues that the executive manager is in a position that controls the director composition, so reduces the possibility of governance from board of directors. In this research, the years a person has served as an executive manager is considered as the executive manager tenure to identify this effect.

The separation of executive manager position from board of directors (CG5) = if the executive manager is also the chairperson of directors, then the situation is called duality of executive manager's duty. Potentially, in this situation the executive manager has more power. This dual structure allows the executive manager to control the available information for other members of the board of directors in an effective way; therefore, effective governance can be prevented. This variable is measured with a nominal variable of 0 and 1; whenever the executive managers of a company are not a member of board of directors it is equal to one and otherwise it is zero.

Control variables are variables that overshadow the accuracy of independent variable measurements by affecting the dependent variables, so we control this effect by considering three kinds of these variables.

Company size (FSIZE): in the present research, using the natural logarithm of the value of investment market is calculated at the end of fiscal year (Badavar et al., 2012).

Leverage (LECERAGE): it is the ratio of total liabilities book value to total assets book value that measures the amounts of company liabilities from the assets (Badavar et al., 2012).

7. Analysis

The descriptive statistics includes a set of methods that are employed to gather, summarize, categorize and describe the numerical facts; to this end, central and distributional parameters are used. These criteria help to have a better understanding of the results of a test. The descriptive statistics of the research variables are present in Table 1.

According to the findings of Table 1, the coefficient of skewness in CG5, CG2 and CG3 is negative, which indicates that there is skewness toward left side and the variables tend to larger values. As such, positivity of the skewness coefficient in other variables is an indicative of skewness toward right side and the variables tendency toward smaller values. Positivity of elongation coefficient in all variables indicates that the variable distributing is longer than normal and the data are concentrated around the mean value.

8. The results of hypothesis testing

Hypothesis testing requires the establishment of these hypotheses: normality of dependent variables, homologous variances, and absence of autocorrelation; because, if they are not established, the obtained results would not be reliable and this could lead to incorrect conclusions. After ensuring the establishment of regression hypotheses, the research hypotheses are tested.

8.1. The results of collinearity

The most obvious sign of collinearity is a very big R^2 statistic. The determinant coefficient is and

indicative of the amount of changes in dependent variable as a result of change in independent variable, and the remained changes are resulted from other factors. In this research, these two factors were investigated and it was recognized that there is no collinearity between the research variables. R^2 in both models is bigger than correlation in other statistics, which shows that there is no collinearity (Table 2).

Table 1: The descriptive statistics of the research variables

	CG1	CG2	CG3	CG4	CG5	Ssize	Lleverage	RROA	RROE
Mmean	9.01	0.52	24.94	1.84	0.83	2.47	1.09	0.24	0.01
Mmedian	1.56	0.60	29.00	2.00	1.00	1.76	1.08	0.24	0.01
Mmax	48.00	0.80	49.30	4.00	1.00	1.11	1.22	0.64	0.04
Mmin	0.00	0.00	0.00	1.00	0.00	27.09	1.01	0.04	0.00
SSD	13.30	0.17	13.82	0.85	0.37	2.50	0.06	0.12	0.01
Sskewness	1.40	-1.48	-0.34	0.75	-1.76	1.48	1.44	0.61	0.58
Eelongation	3.74	4.45	1.73	2.87	4.11	4.92	5.40	3.61	2.61
Ttotal 1	586.2	34.33	1621	120.0	54.00	1.60	70.97	16.08	1.28
Ttotal	1132	2.01	1223	46.46	9.13	4.00	0.10	0.95	0.00
Oobservations	65	65	65	65	65	65	65	65	65

8.2. The results of hypothesis 1 testing

According to this hypothesis, it is expected that corporative governance mechanisms have a significant relationship with the financial performance of the companies. In order to test this hypothesis, the regression model 1 was used. Before estimating the model, it is necessary to use Limer method.

Table 2: Collinearity between the research variables

	CG1	CG2	CG3	CG4	CG5	FSIZE	ROA	ROE	LEVERAGE
CG1	1.00	-0.29	-0.80	-0.09	0.258	0.403	-0.581	-0.574	-0.076
CG2	-0.29	1.00	0.41	0.24	-0.137	-0.223	0.243	0.109	-0.187
CG3	-0.80	0.41	1.00	0.08	-0.1	-0.538	0.51	0.366	-0.120
CG4	-0.09	0.24	0.08	1.00	0.014	-0.073	-0.014	-0.004	0.017
CG5	0.25	-0.13aa	-0.10	0.01	1.00	0.343	-0.144	-0.074	0.050
FSIZE	0.40	-0.22	-0.53	-0.07	0.343	1.00	-0.617	-0.489	-0.015
ROA	-0.58	0.24	0.51	-0.01	-0.144	-0.617	1.00	0.703	-0.206
ROE	-0.57	0.10	0.36	-0.004	-0.074	-0.489	0.703	1.00	0.495
LEVERAGE	-0.07	0.18	-0.12	0.017	0.05	-0.015	-0.206	0.495	1.00

To this end, Limer F test is employed to investigate the existence of a statistically significant difference between the intercepts. In other words, Limer F test is used to determine the panel and pooled data (Table 3).

Table 3: The results of Lime F test

Test	Statistic	Significance
F Limer test	5.8671	0.0001
Hausman test	41.782678	0.0000

Resource: the research findings

According to the results, the significance of Limer F statistic is smaller than 5%; therefore the target method for estimating model 1 is a pooled method. Since the significance of Hausman statistic is smaller than 5%, so the model is a constant effect model. The results from estimation of model 1 are presented in Table 4.

Table 4: The results of hypothesis 1 testing

Model 1: Performance (ROA it) = α + β1 corporative governance 1 it+ β2 corporative governance 2 it +β3 corporative governance 3 it + β4 corporative governance 4 it+ β5 corporative governance 5 it+ β6 FSIZE it + β7 LEVERAGE it +ε it				
Significance	t-statistic	SD	Variable coefficient	Coefficient
0.2863	1.077666	0.024252	0.026136	CG5
0.0172	2.463839	0.006102	0.015035	CG4
0.0058	2.881754	0.001180	0.003399	CG3
0.0000	-8.338466	0.000869	-0.007247	CG2
0.0022	3.231693	0.031745	0.102591	CG1
0.0000	6.696671	0.007626	0.051071	LOG(SIZE)
0.0002	3.947659	0.211417	0.834603	LEVERAGE
0.0000	9.350134	0.236625	2.212475	C
F statistic	15.5506	Regulated determinant Coefficient		0.7471
Possibility of statistic	0.0000	Dorbin-Watson Statistic		1.8768

The results obtained from the statistical tests of the first hypothesis are stated in table 4. It should be noted that all the coefficients are expected theoretically and are significant at 5%. As such, R^2 =

0/79, which means that the independent variables explain 79% of the changes in dependent variable. Dorbin –Watson statistic is 1.8, indicating that there is no autocorrelation among the variables.

The coefficient of executive manager tenure is statistically positive and significant (0.015), showing that, *ceteris paribus*, each unit of increase in the executive manager tenure will lead to 0.015% increase in ROA.

The coefficient of separation of executive manager position from the board of directors is not statistically significant.

The coefficient of management ownership was statistically positive and significant (0.0034), showing that, *ceteris paribus*, each unit of increase in management ownership will lead to 0.0034% increase in ROA.

The coefficient of the ratio of non-executive managers to executive managers is statistically positive and significant (0.010), showing that, *ceteris paribus*, each unit of increase in the ratio of non-executive managers to executive managers will led to 0.010% increase in ROA.

The coefficient of the state-owned shares is statistically negative and significant (0.007), showing that, *ceteris paribus*, each unit of increase in the state-owned shares will led to 0.007% decrease in ROA.

The coefficient of the natural logarithm of assets book value is statistically positive and significant (0.05), showing that, *ceteris paribus*, each unit of increase in the natural logarithm of assets book value will led to 0.05% increase in ROA.

The coefficient of the ratio of total liability book value to total asset book value is statistically positive and significant (0.84), showing that, *ceteris paribus*, each unit of increase in the ratio of total liability book value to total asset book value e will led to 0.84% increase in ROA.

Given the fact that in panel data model the individual effect of each corporation shows itself in intercepts, so these coefficients can be used to compare Pasargad Bank to other banks.

As it is shown Table 5, the effects of banks are presented separately. Here the individual effect of Pasargad Bank is negative, which is smaller than Sina Bank but bigger than Eghtesad-e Novin Bank. The individual effect of other banks is positive.

Table 5: The comparative results of the individual banks in model 1

	Rating	Individual effects
Eghtesad-e-Novin	1	-0.000537
Parsian	2	0.013649
Pasargad	3	-0.062841
Tejarat	4	0.054760
Sina	5	-0.086327
Saderat	6	0.027008
Kar Afarin	7	0.031852

8.3. Testing the normality of residuals – model 1

In this section Jark-Bra test is used to investigate the normality of residual distributions in the first model of the research. In these tests, the null hypothesis considers the residual as normal: if its possibility is less than 5%, the null hypothesis is rejected with a possibility of 95%. The results of Jark-Bra test are shown in Table 6.

Table 6: the results of Jark – Bra test

Jark-Bra statistic	0.3189
The possibility of Jark-Bra Test	0.8525
Observtions	65

Given the fact that the obtained figure for Jark-Bra test is bigger than 5%, it can be found that the error distribution in the first model is normal.

8.4. The results of the second hypothesis

According to this hypothesis, it is expected that corporative governance mechanisms have a significant relationship with the financial performance of the companies. In order to test this hypothesis, the regression model 1 was used. Before estimating the model, it is necessary to use Limer method. To this end, Limer F test is employed to investigate the existence of a statistically significant difference between the intercepts. In other words, Limer F test is used to determine the panel and pooled data (Table 7).

Table 7: The results of Lime F test

Test	Statistic	Significance
F Limer test	12.0328	0.0000
Hausman test	39.4484	0.0000

According to the results, the significance of Limer F statistic is smaller than 5%; therefore the target method for estimating model 1 is a pooled method. Since the significance of Hausman statistic is smaller than 5%, so the model is a constant effect model. The results from estimation of model 1 are presented in Table 8.

Table 8 shows the results obtained from the statistical tests of the second hypothesis. It should be noted that all the coefficients are expected theoretically and are significant at 5%. As such, R^2 = 0/84, which means that the independent variables explain 84% of the changes in dependent variable.

The coefficients of executive manager tenure and separation of executive manager position from the board of directors are not statistically significant.

The coefficient of management ownership was statistically positive and significant (0.0003), showing that, *ceteris paribus*, each unit of increase in management ownership will lead to 0.0003% increase in ROE.

The coefficient of the ratio of non-executive managers to executive managers is statistically positive and significant (0.009), showing that, *ceteris paribus*, each unit of increase in the ratio of non-

executive managers to executive managers will led

to 0.009% increase in ROE.

Table 8: The results of hypothesis 1 testing

Model 1: Performance (ROE it) = α + β1 corporative governance 1 it+ β2 corporative governance 2 it +β3 corporative governance 3 it + β4 corporative governance 4 it+ β5 corporative governance 5 it+ β6 FSIZE it + β7 LEVERAGE it +ε it				
Significance	t-statistic	SD	Variable coefficient	Coefficient
0.5753	0.563853	0.001898	0.001070	CG5
0.2916	-1.065665	0.000563	-0.000599	CG4
0.0000	4.456033	7.62E-05	0.000339	CG3
0.0000	4.820530	0.001835	0.008845	CG2
0.0000	-4.601182	0.000133	-0.000612	CG1
0.0000	7.966311	0.000471	0.003755	LOG(SIZE)
0.0000	9.802806	0.012537	0.122902	LEVERAGE
0.0213	-2.376555	0.014721	-0.034986	C
F statistic	21.1130	Regulated determinant Coefficient		0.8033
Possibility of statistic	0.0000	Dorbin-Watson Statistic		1.8587

The coefficient of the state-owned shares is statistically negative and significant (0.0006), showing that, *ceteris paribus*, each unit of increase in the state-owned shares will led to 0.0006% decrease in ROE.

The coefficient of the natural logarithm of assets book value is statistically positive and significant (0.004), showing that, *ceteris paribus*, each unit of increase in the natural logarithm of assets book value will led to 0.004% increase in ROE.

The coefficient of the ratio of total liability book value to total asset book value is statistically positive and significant (0.12), showing that, *ceteris paribus*, each unit of increase in the ratio of total liability book value to total asset book value e will led to 0.12% increase in ROE (Table 9).

Table 9: The comparative results of the individual banks in model 2

	Rating	Individual effects
Eghtesad-e-Novin	1	0.001202
Parsian	2	0.001914
Tejarat	3	0.005639
KarAfarin	7	0.001767
Saderat	6	0.000347
Pasargad	4	0.004614
Sina	5	-0.00807

As it is shown in the above table, the effects of banks are presented separately. Here the individual effect of Pasargad Bank is positive, which is bigger than Sina Bank but smaller than other banks.

8.5. Testing the normality of residuals – model 2

In this section Jark-Bra test is used to investigate the normality of residual distributions in the first model of the research. In these tests, the null hypothesis considers the residual as normal: if its possibility is less than 5%, the null hypothesis is rejected with a possibility of 95%. The results of Jark-Bra test are shown in tables 4-12 (Table 10).

Table 10: The results of Jark – Bra test

Jark-Bra statistic	2.7426
The possibility of Jark-Bra Test	0.2437
Observations	65

Given the fact that the obtained figure for Jark-Bra test is bigger than 5%, it can be found that the error distribution in the second model is normal.

8.6. Stability test

In order to ensure the results of the research and the relationships of the regression and variable significance, a stability test was conducted and the roots of research variables were calculated in EGLS model. The mentioned test uses *Eviews 7* software, Loin, Lin and Cho test, Imm test, Pesran and Shin test, generalized Fisher-Dicki unit root test, and Fisher-Philips Pron and Chobi unit root test (Table 11).

The results from the stability test show that, given the calculated P-value, all the variables are stable in Loin, Lin and Cho test, because their possibility is less than 5%.

9. The results from deductive statistics of variables

According to the above-mentioned regression models, the effect of independent and control variables on stock prices was tested. The significance results of Hausman tests showed that the constant effects model is better than random effects model, and the research hypotheses were tested according to this fact. The results of hypothesis testing are as follows:

H1: There is a significant relationship between corporate governance and ROA.

It can be concluded that, given the significance level of the first hypothesis result, and according to table 4, in the first model the possibility of F statistic is 0.0000, showing that the regression model of the first hypothesis is significant with a possibility of 99%, and so it is accepted.

On the other hand, Dorbin-Watson statistic is 1.87. According to the fact that this value is inside (2.5-1.5), it indicates that there is no autocorrelation among the residuals of the regression equation. The determinant coefficient is also 0.7473; which means, given the regulated determinant coefficient,

corporative governance variables explain 75% of the changes in ROA (dependent variable).

Table 11: The results of stability test are presented

Fisher-Philips Porn		Fisher-Dicki Foler		Loin, Lin and Cho		Variable
Statistic	Possibility	Statistic	Possibility	Statistic	Possibility	
28.5340	0.0015	19.6816	0.0324	-2.63867	0.0042	CG1
19.8062	0.0708	19.8578	0.0698	-2.72774	0.0032	CG2
28.5466	0.0120	30.6893	0.0061	-5.44469	0.0000	CG3
31.6022	0.0016	28.3368	0.0049	-3.79309	0.0001	CG4
11.7940	0.1606	11.1392	0.1939	-1.68695	0.0458	CG5
20.2558	0.1223	28.3368	0.0128	-4.07657	0.0000	ROA
27.3428	0.0174	27.2244	0.0180	-6.22280	0.0000	ROE
29.4977	0.0089	28.8854	0.0108	-6.34150	0.0000	SIZE
21.6865	0.0853	20.1627	0.1251	-2.28311	0.0112	LEVEREGE

Given that four independent variables of the total five independent variables have a significant relationship with ROA, so it can be concluded that corporative governance has a significant relationship with ROA. The only independent variable that has no relationship with ROA is 'the separation of executive manager position from the board of directors'' variable.

H1: There is a significant relationship between corporate governance and ROE.

It can be concluded that, given the significance level of the second hypothesis result, and according to table 8, in the second model the possibility of F statistic is 0.0000, showing that the regression model of the second hypothesis is significant with a possibility of 99%, and so it is accepted.

On the other hand, Dorbin-Watson statistic is 1.85. According to the fact that this value is inside (2.5-1.5), it indicates that there is no autocorrelation among the residuals of the regression equation. The determinant coefficient is also 0.8033; which means, given the regulated determinant coefficient, corporative governance variables explain 80% of the changes in ROE (dependent variable).

Given that three independent variables of the total five independent variables have a significant relationship with ROE, so it can be concluded that corporative governance has a significant relationship with ROE. The only two independent variables that have no relationship with ROE are 'the separation of executive manager position from the board of director's' and 'executive manager tenure' variables.

The analytic results of the first model indicate that there is a significant relationship between all the variables of corporative governance, except 'the separation of executive manager position from the board of directors'', and ROA. As such, when Pasargad Bank is compared to other banks, this bank has a medium rating in terms of being affected by corporative governance. Investigation of the second model also showed that there is a significant relationship between 'state-owned shares', 'the ratio of non-executive managers to executive managers', 'the amount of managerial ownership', and ROE. In comparison to other banks, ROE of Pasargad Bank is lesser affected by corporative governance and has a lower rating.

According to the research background given in section 2, the results of this research prove that there is a significant relationship between corporative governance and financial performance of the banks listed in Tehran Stock Exchange. This research is in line with the other researches such as Peni et al. (2013) and Dedu and Chitan (2013). Although these researches always affirm the relationship between corporative governance and banking performance, the direction of this relationship is different in each research.

In domestic researches, Keshiri et al. (2013) and Taghavi et al. (2013) confirm the significant relationship between corporative governance and financial performance of banks.

10. Suggestions

According to our results, it is proved that corporative governance can improve profitability and performance of banks. So, it is always recommended to banks to improve their effective corporative governance indices such as: state-owned shares, the ratio of non-executive managers to executive managers, the amount of managerial ownership, and executive manager tenure, in order to improve their bank performance and assure the shareholders of performance improvement.

It is also recommended to shareholders to pay attention to corporative governance in banks and invest on those banks that possess appropriate corporative governance, because performance improvement leads to increased profitability and ensures their interests.

It is also recommended to the policy-making institutions of the central bank to implement the corporative governance regulations in such institutions as stock market, which leads to clarification and performance improvement in all banks and financial institutions, because in this research banks and stock market, observe the corporative governance regulations. So, it seems that some governance regulations specifiv to financial institutions can be defined to monitor the performance of banks.

Given all the different aspects of the conducted research, the readers are invited to conduct more

extensive researches on some aspects that were not covered in this research for some reasons:

1) We suggest investigating other indices of corporative governance such as independent auditors, institutional ownership of governmental owners or investment companies, and retirement.
2) A future research can be conducted using the related data but different research methods such as data covering analysis (DCA) to rate the banks, or using neural networks.
3) It is suggested that the results of this research can be investigated in industries other than banking industry such as production industry.
4) It is suggested that in future researches the financial performance of banks could be investigated using different indices.

11. Research limitations

Each researcher faces with some problems when gathering information and gaining the desired results. These problems should be identified and removed. Conducting this research had some limitations, the most important of which are:

1) The research time period can affect the results of a research. If a longer time domain was considered for the research, which was impossible because of time limitation in data gathering and finishing the thesis in a specified time, more generalizable results could be obtained.
2) In this research only the listed banks in stock market were investigated, and the main reason was that the reports of shareholders and owners of other banks and financial institutions are not issued regularly. Therefore, one of the main limitations of this research is the small statistical population which includes only 11 banks listed in Tehran Stock Exchange.

Given the lack of complete and written reports of banks and their inappropriate publication, some ownership information was not available and this made the sample smaller.

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