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**EVALUATING THE RELATIONSHIP BETWEEN THE POLITICAL CONNECTIONS
AND THE LIQUIDITY OF THE STOCK MARKET TO COMPANIES LISTED IN
TEHRAN STOCK EXCHANGE**

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ABSTRACT

This study sought to examine the relationship between political connections and liquidity in the stock market to the companies listed in Tehran Stock Exchange. Space domain was all companies listed in Tehran Stock Exchange and temporary domain was the companies listed in Tehran Stock Exchange during the 5-year period from 2008 to 2011. According to the research hypotheses, independent variable is as political connections and the dependent variable as a stock liquidity. In order to select the sample, De Morgan table was used, 69 companies were selected on the basis of this method. To analyze first, second and third hypotheses of this study, simple linear regression test, and t-test with two independent samples and Kolmogorov-Smirnov normality pre-test were employed, respectively, using SPSS 19 software. The results showed that there is a significant relationship between the political connections of the board and the stock liquidity of the companies listed in Tehran Stock Exchange. There is a significant difference between political connections of the board and the stock liquidity companies of large and small size. There is a significant difference between political relations and the stock liquidity of the companies with state ownership and private ownership.

Keywords: Political Connections, Stock Market Liquidity, Ownership Structure

INTRODUCTION

When political interference in business activities through political connections by the board can be treated as a common and severe affair, organizational restrictions would be weak. Several studies have claimed that economic and political institutions in shaping corporate ownership, corporate governance and accounting practices and policies that have an impact on the value of the company will play a relevant role. The question of whether political connections of the board indices stock liquidity to be improved or not, has been extensively investigated. But with the help of other integrated findings, Fousio (2006) and Goldman et al (2009) showed that there is a positive relationship between the board's political connections and the liquidity of the stock. Zhu and Wang (1999) could find a negative impact from public shareholders on the company's performance.

This research deals with the question of whether political connections of the board is related to channels and market liquidity through a variety of controlling the ownership structure affecting liquidity in stock market. Most of issue about the political relationship of the board and firm value will be discussed outside the stock market. This study is the first to investigate the relationship between political connections and market liquidity.

Prominent characteristic of the structure of shareholdings in public companies is that the government often retains the underlying ownership of stock companies; it cannot be seen in the emerging economies. The state ownership is distributed among various agencies each with their different goals and specifies political involvement of the board and commercialization stock companies in which they have invested (Mofan et al 2013, Carles et al, 2014). Considering the subjects stated, this study aims to examine the relationship between the political connections and the liquidity of the stock market to companies listed in Tehran Stock Exchange, and we, in this study, sought to examine this.

LITERATURE

Sodka investigated the relationship between stock liquidity and accounting information in the New York Stock Exchange. He showed in his research that by reducing the risks associated with accounting information takes place via increasing the quality and reliability of accounting data, company's shares will be reliable and become attractive and ultimately lead to increase the liquidity of the stock.

Lom & Tom examined the total impact of the liquidity of the stock on capital asset pricing. Their results show that the liquidity of shares can be considered as another factor in capital

asset pricing model. In their opinion, the best model for evaluating the risk premium associated with the return of the stock of market factor, firm size, the ratio of book value to market value of stock and stock liquidity.

Leshoski & Veronokova (2013) began to assess whether the liquidity of the stock, along with firm size and firm value is one of the important and affecting factors on stock returns. They examined 405 stock companies during the years between 1998 and 2009. Their results show that, contrary to what is expected, stock liquidity compared to the value of the shares and firm size does not have a significant effect on stock returns.

Ding (2014) examined the relationship between political connections of board and liquidity of the stock. He examined 362 Chinese companies in the years between 1996 and 2012. In order to measure the board's political connections, he employed binary method (zero and one). The results showed there is a significant relationship between the political connections of the board and the liquidity of shares of Chinese companies.

RESEARCH METHODOLOGY

3.1 Hypotheses

- There is a significant relationship between political connections of the board and the

liquidity of shares of companies listed in Tehran Stock Exchange.

- There is a significant difference between political connections of the board and the liquidity of shares in companies of large and small sizes.
- There is a significant difference between political connections of the board and the liquidity of shares in companies with state ownership and private ownership.

3-2 Statistical population and sample

The population is of all companies listed in Tehran stock exchange between 2008 and 2012; and the sample was selected from stock companies. In this study, in order to determine the research sample the following conditions are considered:

In this study, to measure the variables we use to measure return on assets as the ratio of net profit to total assets are measured.

- 1) In terms of increase comparability, the fiscal period ending in March
- 2) During the fiscal years under study, not change the activity or fiscal year.
- 3) Not belonging to banks and financial institutes (investing companies, financial intermediation, holding companies and leasing companies), that are of different financial disclosure and structure of corporate governance principles.

4) The company's stock is traded on the Tehran Stock Exchange.

Based on the features listed and on De Morgan table, 296 companies were selected as statistical population, 69 companies as sample, respectively.

REGRESSION MODEL

Stock market liquidity_{it} = $\gamma_0 + \gamma_1$ politically connected_{it} + γ_2 Size_{it} + γ_3 Industry_{it} + ε_{it}

Stock market liquidity_{it}: For measuring the liquidity of the stock, we employ a model that Chiang and Vanktash designed to determine the extent of recommended price to buy and sell shares.

Politically connected_{it}: If at least one of the members of the board belongs to the representative of Islamic Parliament, members of the Cabinet, the Assembly of Experts and expediency discretion council of the regime's and judiciary's heads (according to the Board of Directors' reports and financial statements notes), number 1 is given and zero otherwise (Abdoulahinejad and Afkhami, 2011, Kamal Akbari 2011).

Size_{it}: The natural logarithm of the total book value of the assets of the company (Kourdestani et al, 2011).

Industry_{it}: Based on classification of Tehran Stock Exchange (Kourdestani et al, 2011).

DATA ANALYSIS METHOD

In this study, we examined the variables' descriptive statistics in form of central and dispersion indices. To test the first hypothesis, we use simple linear regression to confirm or reject this hypothesis. And then on the second and third hypotheses, to assess the normality of the data distribution, the Kolmogorov-Smirnov test will use. And finally to evaluate the second and third hypotheses, t-test with two independent samples was used. If the data distribution is not normal, non-parametric test of Wilcoxon was used.

RESULTS

Normality of the data

H₀: Data for the dependent variable follows a normal distribution.

H₁: Data for the dependent variable does not follow a normal distribution.

According to Table 1.1, because of the level of significance of variables more than 0.05, therefore null hypothesis, i.e. the normal distribution, is confirmed.

Table 1-1- Kolmogorov-Smirnov test for the variables' normal distribution

Variables	Normal parameters		The most difference			Z-value of Kolmogorov-Smirnov	Probability value
	Mean	Standard deviation	Absolute value	Positive	Negative		
Stock liquidity	0.22	0.61	0.11	0.01	0.11	0.74	0.14

Political connections of the board	-	0.18	0.28	0.14	0.18	0.91	0.11
Private ownership	0.28	0.58	0.06	0.15	0.12	0.55	0.26
State ownership	0.61	0.22	0.18	0.24	0.17	1.11	0.10
Firm size	16.95	2.66	0.30	0.04	0.00	0.68	0.23

* 5% error level

4-2- First hypothesis test

Table 1-2 Regression

Variable	Non-standardized coefficients		Standardized Influence coefficients	t	Significance level
	Influence coefficients	Estimation deviation			
Fixed	0.528	0.347	-	6.258	0.003*
The board's political connects	2.369	0.228	0.319	5.475	0.011*
Firm size	5.625	0.628	0.118	6.177	0.008
Type of industry	0.339	0.459	0.748	4.962	0.026

* 5% error level

Table 1-3- explanatory and significance of total model

R ²		Watson-Durbin	Significance of total model	
Determination coefficient	Adjusted determination coefficient		F-statistic	Significance level
0.624	0.617	2.001	55.487	0.000**

** 1% error level

According to Table 1-3, concluded that the standardized influence coefficient to the variable of political connections on variable of liquidity of the shares is equal to 0.319, it itself shows that the political connections of board over companies leads to increase liquidity in these companies. The t-statistic significant level of political connections of the board on the liquidity of the stock, because of error level less than 5%, shows the significance of this relationship is at 95% confident level. Therefore, the null hypothesis can be rejected and H_1 was accepted and stated that there is a significant relationship

between the political connections of the board and the liquidity of the shares of the companies listed in Tehran Stock Exchange. Adjusted coefficient of determination shows that the independent and control variables can explain about 61.7% changes in dependent variable (liquidity of shares). A significant level of F statistics also shows that the overall research model was significant and the research model could be written as:

$$\text{Stock market liquidity}_{it} = 0.528 + 0.319 \text{ politically connected}_{it} + 0.11 \text{ Size}_{it} + 0.748 \text{ Industry}_{it} + \varepsilon_{it}$$

4-3- Second hypothesis test

Table 1-4- t-test with two independent samples

Variance type	Levin test		t-test with hypothesis on equal mean				
	F	Significance level	t	Freedom degree	Significance level	Mean difference	Error level
Equal variance	0.847	0.126	4.819	68	0.000*	0.246	0.117
Non-equal variance	-	-	4.337	68.2	0.008*	0.528	0.382

* 5% significance level

The first step in the interpretation of results obtained by t-test with two independent samples, the expression of equality or inequality of the variance in the scores was studied between the two groups. Levin Test is used for this purpose. According to Table 1-4 due to lack of significance on Levin test (0.847) with the error level (0.126) it was used the results of the hypothesis of the equality of variance for the interpretation of the test. T-test results indicate that there is no

significantly different mean to the relationship between the political connections and the liquidity of shares in small and large companies; and these two groups are not the same with each other at 95% confident level (be different); we can reject the null hypothesis and say that there is a significant difference between the political connections and the liquidity of shares in companies of large and small sizes.

4-4- The third hypothesis test

Table 1-5- t-test with two independent samples

Variance type	Levin test		t-test with hypothesis on equal mean				
	F	Significance level	t	Freedom degree	Significance level	Mean difference	Error level
Equal variance	1.226	0.074	4.445	68	0.000*	0.728	0.555
Non-equal variance	-	-	4.215	68.6	0.000*	0.349	0.209

* 5% confidence level

The first step in interpreting the results of t-test with two independent samples is the expression of equality or inequality of the variance in the scores between the two studied groups. Levin test is used for this purpose. According to Table 5-1, due to non-significant Levin test (1.226) with error level (0.074), we use the results of hypothesis on

equality of variances for interpretation. T-test results indicate that there are significantly different mean to the relationship between the political connections and the liquidity of shares in companies with state ownership and private ownership; and these two groups are not the same with each other at 95% confidence level (be different), we can reject

the null hypothesis and say there is a significant difference between the political connections and the liquidity of shares in companies with state ownership and private ownership.

CONCLUSIONS AND RECOMMENDATIONS

The first hypothesis test results showed political connections of the board of the companies lead to increase liquidity in these companies. This result is consistent with results by Ding, because his research showed a positive strong correlation between stock liquidity and political connections of the board. The second hypothesis test results showed that there is a significant difference between the political connections and the liquidity of shares in companies with state ownership and private ownership. According to a survey of internal and external investigations conducted relevant to the research, no research on the compatibility and incompatibility has been found which is consistent with the results. According to the research findings, can be stated the following suggestions:

1. Investors and shareholders should not pay attention to make their own decisions only on issues such as profitability, return on equity, intellectual capital, etc. in companies, should pay attention to the subject of political

connections of the board also as a key factor and to adopt it in order for decision criteria.

- 2- Investors, shareholders and other members of the decision-making are suggested to considering another topic in the field of political connections of company board members such as firm size, because research has shown that it was different in large and small companies, and the shareholders should not consider the same strongly positive relationship between political connections of the board and the liquidity of the shares in all companies.

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