Corporate Governance and Dimensions of Stocks Liquidity: A case of Iranian Firms

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Abstract
The aim of present study is to study the relationship between corporate governance and the dimensions of liquidity in the Iranian capital market. The present study is among the applied, descriptive, quasi-experimental post-event research; to test the research hypotheses, financial information of companies listed on Tehran Stock Exchange in the period of 2013 to 2017 has been used and the final sample consists of 211 companies. After applying the restrictions in this study, they have been selected. After measuring the research variables, multi-variable linear regression analysis was used to test the research hypotheses. The tests were performed using Eviews software and statistical technique of integrated data. The results of data analysis showed that there is a significant relationship between outside directors to all members and stock liquidity. There is a significant relationship between stock owned by board of directors and stock liquidity; there is a significant relationship between directors reward rate and stock liquidity; there is a significant relationship between CEO separation from board members and stock liquidity; and there is a significant relationship between CEO variability and stocks liquidity. Research findings while filling the research gap in this area can be a technique for investors, capital market regulators and other beneficiary groups of accounting information to make decisions.

Keywords: Corporate Governance; Dimensions of Liquidity; Tehran Stock Exchange

Introduction
In recent years, the corporate governance has been changed to be one of the main and dynamic aspects of the exchange trading world and attention has increased intensely to it because with the increasing expansion of global markets in the world, issues such as management and smoothing of corporal profits and governance in the world of accounting, management, economics and other science are considered with special sensitivity, and each of the experts and researchers from the perspective of their science have examined and interpreted the results of their findings. Nowadays, attention and development is being made in the exercise of corporate governance at the global level, and international organizations are being forced to provide correct standards in this ground (Gopalan et al., 2010). Corporate governance mechanisms have appeared over time and it can be considered as supervision and control process on company management operation guarantee regarding stockholders. Researchers believe that one of the main factors in improving economic efficiency is the corporate governance system, which includes a set of relationships between company management, board of directors, shareholders and other beneficiary groups. The corporate governance system provides a structure through which the firm's goals, the means to achieve the goals, and the oversight of performance are set. This system provides the necessary motivation to achieve the firm's goals in management and provides companies with more effective supervision. So that companies use resources with more efficacy. Good corporate governance also provides more disclosure and better information in order to be
accountable to shareholders. Of course, Organization for Economic Cooperation and Development believes that corporate governance is system of relationships between management, board, shareholders and other stockholders that provides the structure by which the goals of the company are expressed and the tools to achieve these goals as well as how to monitor the performance of managers are defined. In any case, the corporate governance in the current form was founded in the early 1990s in connection with the problems related to the efficiency of the corporate board of directors, and gradually with the expansion of the financial crises of recent years, more emphasis was placed on establishing these mechanisms. Because studying the reasons and pathology of the collapse of some big companies that experienced huge losses, especially for shareholders, which showed the weakness of this mechanism, has caused these problems.

Corporate governance can improve the business standards of companies, encourage, supply and equip capital and investors and improve their operations and is one of the main elements in improving the economic efficiency of companies because it oversees the flow of shareholders, boards, managers and other beneficiary groups. However, some companies have strong corporate governance mechanisms in the number of independent board members, the presence of institutional investors, and others have weak corporate governance that corporate governance mechanism can affect various issues such as profit qualities, profit management, reporting quality, etc. One of the issues that can be affected by corporate governance is stock liquidity. The issue of stock liquidity in recent years has attracted a great deal of attention in academic studies in addition to important publications. Liquidity of stocks is the ability to buy and sell stocks in the shortest possible time and cost. Liquidity is one of the desirable characteristics of competitive markets. Liquidity can be defined as the possibility of quick transactions, at low cost and without severely affecting the price (Searatet al., 2017). The results of research on the relationship between liquidity and capital structure show that increasing liquidity reduces the cost of equity costs of shareholders and the relationship between stock liquidity and payroll costs of the shareholders creates a link between stock liquidity and capital structure. Therefore, companies with higher liquidity stocks prefer to finance through stocks (Sheikhand Wang, 2012). Stock liquidity plays an important role in the price discovery process and is a criterion for market efficiency and increasing the value of the company, especially in terms of information (Edmans et al, 2013).

Although research on the determinants of stock liquidity has a long history, the focus of most of the previous sources had been on the characteristics of the employer, characteristics of audit activity or company profile. There are few studies that have examined the effect of management characteristics as components of corporate governance on liquidity; and there is a gap in the accounting literature for research on this subject which is the motivation for current study. Therefore, in this study, we try to relate the characteristics of the board of directors (criteria of outside directors to the total number of board members, shares owned by board of directors, the board reward rate, and separation of the CEO from the board of directors and CEO variability) and liquidity. The main question of the research is whether there is a significant relationship between the characteristics of the board of directors (financial expertise, independence, non-obligation of the chairman of the board) and stock liquidity? And if the answer is yes, what is the type of relationship? Research findings, while providing a theoretical basis for past research on stock liquidity in developing countries such as Iran, can also be used by investors, capital market regulators and other users of accounting information and can be instrumental in their decision-making.

**Theoretical foundations of research**

**Corporate Governance**

Corporate governance has also developed as one of the most important business titles at the beginning of the 21st century (Giddy, 2001). The United States had one of the greatest corporate governance laws in recent years, because of the latest scandal of some companies such as Adelphi, Enron, WorldCom, and DeGra as incentives to pass the Sarbanes-Oxley Act as US law (Gompers et al., 2003). Corporate governance is a multidisciplinary concept, and corporate governance goals are to achieve the four issues of accountability, transparency, fairness and beneficiary groups’ rights (Gugler et al., 1998). Therefore, a comprehensive and complete definition of corporate governance can be provided as: "Corporate governance is the laws, regulations, structures, processes, cultures and systems that achieve the goals of accountability, transparency, justice and respect for beneficiary groups’ rights” (Haniffa & Cooke, 2002).

Development of corporate governance mechanisms is essential for sustainable development and economic growth. Specifically, countries that have implemented corporate governance mechanisms generally have very high growth and greater ability to attract capital and ultimately better economic situation (Sheikhand Wang, 2012). Increasing the number of shareholders of public companies, the
expansions of stock exchanges, as well as the inefficiency of the contractual system in protecting the beneficiary groups’ rights, have led capital market regulators to require listed companies to review the internal structure of the company in the form of corporate governance (Harrison, 1987).

Today, protecting the public interest, respecting beneficiary groups’ rights, promoting information transparency and requiring companies to fulfill social responsibilities are among the most important ideals that have been considered more than ever by various regulatory and executive authorities. The realization of these ideals requires the existence of firm rules and appropriate executive mechanisms, the most important of which is the corporate governance system or corporate governance. Corporate governance, above all, has targeted the life of the company in the long run, and in this regard, tries to support the interests of shareholders in front of company managers and prevent unwanted transfer of wealth between different groups and the squandering of public rights and individual shareholders. Having a proper governance system can help to achieve the independence of independent auditors in the true sense of the word and lead to a transparent information space in which economic actors can make more informed decisions. Today, there is no doubt about the importance and position of corporate governance for the success of companies, because this issue has become more important due to the events of recent years and the financial crises of companies. By studying the causes and pathology of the collapse of some large companies, which had great losses, especially for shareholders, it was revealed that the reason was the weakness of their corporate governance systems. Researches show that corporate governance can improve the business standards of companies, encourage supply and equip capital and investors and improve their operations and is one of the main elements in improving the economic efficiency of companies because it oversees the flow of shareholders, board of directors, managers and other beneficiary groups (Hašet al., 2014).

The Board of Director
Boards of directors are one of the columns of governance in today’s companies, which are often referred to as the executive lever of corporate governance principles and responsible for monitoring and policy-making in companies. Board members are often elected by shareholders, while in some new governance systems, the opinions of employees, government agencies, investors and suppliers also influence their selection. Boards of directors are often a group of individuals who have the authority to oversee, control, macro-policy, and govern a particular company. This set of people (in the form of an effective work team) should ensure the health of the company in various areas such as proper financial performance of the company, legality of activities, appropriateness of processes and actions taken by the company with the strategic goals of the company; It is more effective than the smaller board of directors; the board of directors is considered to be the most important factor in controlling and supervising the management and protection of shareholder resources (Fama and Jensen, 1983).

Liquidity
One of the key issues in investing is liquidity rate; the role of liquidity in valuation is very important, because investors pay attention to whether there is a good market for it if they want to sell their assets (Fang et al., 2009). Liquidity is one of the desirable characteristics of competitive markets. Liquidity is the ability to convert cash instantly without removing a significant amount of value (Gillan, 2006).

Study Background
Searat et al. (2017) examined the effect of corporate governance on liquidity on the value of the Australian stock exchange. This study was performed using a multiple regression model and internal governance, board size, board independence and number of board meetings as governance variables of company and ownership structure. The results of the research show that among the above variables, only the size of the board has a significant relationship with the value of the share; In a study, Jiraporn et al. (2011) examined the relationship between liquidity of assets and liquidity of stocks under a certain model. They considered both the theory of valuation uncertainty and the theory of investment uncertainty in their model. Their model showed that the relationship between asset liquidity and stock liquidity is ambiguous due to two competing theories; however, their empirical study showed that there is a strong relationship between asset liquidity and stock liquidity for US businesses. In the second hypothesis of this study, using the ratio of market value to book value and capital expenditures to identify growing business units, they found that the relationship between asset liquidity and stock liquidity for business units with more growth opportunities is similar but negligible. They also found in their third hypothesis that this relationship is more rigid for smaller businesses. Chen et al. (2007) studied the effect of scandal and other corporate governance mechanisms on stock liquidity. They showed that the lack of proper disclosure procedures and poor transparency led to
serious information asymmetries for companies. They used the Disclosure and Transparency Ranking Index as a measure of corporate governance and the price gap (bid and ask price difference) as a criterion for assessing liquidity. They researches also indicated that a company weak disclosure process is along with weak corporal governance, tends to risk of higher information asymmetry and, ultimately, as the main result, widen the price gap of liquidity suppliers.

**Study Hypotheses**

In order to achieve the objectives of the research, based on the theoretical foundations of the current research and experimental studies, the following hypotheses are formulated and tested:

Hypothesis 1: There is a significant relationship between non-executive board members to total members and stock liquidity.

Hypothesis 2: There is a significant relationship between shares owned by board members and stock liquidity.

Hypothesis 3: There is a significant relationship between board reward and stock liquidity.

Hypothesis 4: There is a significant relationship between the separation of the CEO from the members of the board and the liquidity of the shares.

Hypothesis 5: There is a significant relationship between CEO variability and stock liquidity.

**Research Methodology**

In terms of purpose, this research is an applied research and in terms of data collection method, it is a semi-experimental post-event research in the field of affirmative accounting research, which has been done using multi-variable regression method and econometric models. The statistical population of this research includes all public joint stock companies listed on the Tehran Stock Exchange during the period 2013 to 2017. Selected examples of research are companies that have the following set of rules:

1. Have been listed on the Tehran Stock Exchange until the end of December 2013.
2. In order to increase comparability, their fiscal year should end in December.
3. They have not changed their activity or fiscal year during the mentioned periods.
4. They are not part of investment companies and financial intermediaries (investment companies were not included in the statistical community due to the difference in the nature of activities with other companies in the statistical community).
5. The length of the interruption of transactions in these companies during the mentioned period should not be more than 6 months.

Due to the above limitations, 120 companies during 1392 to 1396 were selected as the research sample. The data of the present study were extracted from the compact discs of the statistical and video archives of the Tehran Stock Exchange Organization, the website of the Tehran Stock Exchange and other regular databases, as well as from the RahvardNovin software. The final analysis of the collected data was performed using Evivews statistical software.

**Variables and used model in study**

\[
\text{Liquidity} = \beta_0 + \beta_1\text{BPI} + \beta_2\text{MSO} + \beta_3\text{ROA} + \beta_4\text{LEV} + \beta_5\text{SIZE} + \beta_6\text{AGE} + \beta_7\text{OUTER} + \beta_8\text{CEO} + \beta_9\text{RQI} + \beta_{10}\text{Firm size} + \epsilon
\]

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Variable</th>
<th>Measuring method</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIQ</td>
<td>Liquidity</td>
<td>As measured by liquidity criteria (2002) used to measure</td>
</tr>
<tr>
<td>BPI</td>
<td>Outside directors</td>
<td>Ratio of non-executive board members to total members</td>
</tr>
<tr>
<td>MSO</td>
<td>Shares owned by directors</td>
<td>This variable represents the average shares of real and legal members of the board of directors</td>
</tr>
<tr>
<td>RQI</td>
<td>Reward rate</td>
<td>Is equal to the total payment as a bonus to the members of the board of directors of the company</td>
</tr>
<tr>
<td>CEO</td>
<td>CEO separation</td>
<td>The CEO is separated from the Chairman or members of the Board or NOT. Nominal variables (0 &amp;1) were used to represent them</td>
</tr>
<tr>
<td>OUTER</td>
<td>Manager variability</td>
<td>Is a nominal variable if the number one changes otherwise the number zero</td>
</tr>
<tr>
<td>ROA</td>
<td>Asset efficacy rate</td>
<td>Net profit divided by total assets at the end of the year</td>
</tr>
<tr>
<td>LEV</td>
<td>Finance leverage</td>
<td>Total book value of debt to total book value of assets</td>
</tr>
<tr>
<td>SIZE</td>
<td>Firm size</td>
<td>The natural logarithm of assets remaining at the end of the year</td>
</tr>
<tr>
<td>AGE</td>
<td>Firm age</td>
<td>Is equal to the life of the company</td>
</tr>
</tbody>
</table>

Mixed data technique has been used to estimate the research models. Mixed data obtained by combining two categories of time series and cross-sectional data are widely used by researchers today. In many cases, investigators use this method for cases where it is not possible to examine issues in a series of time or period, or when the amount of data is small. The mixing of time series and cross-sectional data and the necessity of using it is more due to increasing the number of observations, increasing the degree of freedom, reducing the heterogeneity of variance and reducing the colinearity between variables (Goyenko et al, 2009).
Study Findings

Descriptive statistics
Figure 1 shows the descriptive statistics of the data related to the variables used in the research. The descriptive statistics are related to 120 sample companies over a period of 5 years (2013 to 2017). The results of data descriptive analysis can be summarized as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Median</th>
<th>Max</th>
<th>Min</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>liquidity</td>
<td>0.00019</td>
<td>0.0019</td>
<td>1.238</td>
<td>-0.229</td>
<td>0.551</td>
</tr>
<tr>
<td>BQI</td>
<td>0.694</td>
<td>0.800</td>
<td>1.000</td>
<td>0.000</td>
<td>0.198</td>
</tr>
<tr>
<td>MSQ</td>
<td>0.732</td>
<td>0.770</td>
<td>1.000</td>
<td>0.000</td>
<td>0.192</td>
</tr>
<tr>
<td>RQI</td>
<td>2.54</td>
<td>3.000</td>
<td>4.24</td>
<td>0.000</td>
<td>0.065</td>
</tr>
<tr>
<td>CEO</td>
<td>0.132</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.339</td>
</tr>
<tr>
<td>OUTER</td>
<td>0.158</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.365</td>
</tr>
<tr>
<td>ROA</td>
<td>0.159</td>
<td>0.123</td>
<td>1.218</td>
<td>-0.623</td>
<td>0.173</td>
</tr>
<tr>
<td>LEV</td>
<td>0.579</td>
<td>0.596</td>
<td>1.400</td>
<td>0.065</td>
<td>0.197</td>
</tr>
<tr>
<td>SIZE</td>
<td>13.97</td>
<td>13.837</td>
<td>18.918</td>
<td>10.166</td>
<td>1.426</td>
</tr>
<tr>
<td>AGE</td>
<td>20.201</td>
<td>19.000</td>
<td>54.000</td>
<td>4.000</td>
<td>10.654</td>
</tr>
</tbody>
</table>

Figure 1. Descriptive statistics related to the variables of study

As can be seen in this figure, the maximum mean of the firm size variable is 13.9745, which indicates that most of the data related to this variable is placed around this point. The mean as one of the central indicators shows the state of society. The maximum mean of the firm size variable is 13.837, which indicates that half of the data is less than this value and the other half is more than this value, as well as the highest standard deviation for the company size is 14.26 and the lowest standard deviation for efficiency is 0.17.

Results
This study data is in the form of combined data. In combined data, first the F Limmer test is used to determine whether the data are combined or panel, and if the panel data method is used, in order to determine the correct method (fixed effects or random effects) the Hausman test is used to estimate the model. Also Jark-bra test is used to evaluate the normality of the distribution of the disturbance components of the model, and the LR test and the Voldridge test are used to determine the variance heterogeneity and series autocorrelation in the model, respectively. The results of these tests are presented in Figure 2.

According to the above figure, the F Limmer test was used and its significance level (0.000) was less than 0.05; Therefore, the null hypothesis of the test is rejected indicates that the panel data method should be used. Also, according to the results of Hausman test and its significance level (0.0039), it is necessary to estimate the model using the random effects method. Since the significance level of Jark-bra test is more than 0.05, so the assumption of zero= normality for the distribution of the disruption components of the research model is confirmed. The results of the White test and its significance level show that the model has homogeneity of variance. In addition, in order to ensure that there is no Co-linearity problem between the explanatory variables, the Co-linearity test using variance inflation factor (VIF) was examined that the results of this test are presented in Figure 3. Given that the values of this statistic for explanatory variables are less than 10, so there is no Co-linearity between them. The results of the research hypothesis test are presented in Figure (3).

Looking at the values of F–value (0.000) it can be obtained from the fitted regression model is totally significance at 95% assurance level. Considering the values of the adjusted coefficient of determination of the model, it can be claimed that the variables dependent and control can explain 21 percent of liquidity. There is a significant relationship between the members of the board of directors to the total members and stock liquidity.
Because in addition to having positive signs of regression coefficients of the related variable (0.9249), its significance level (0.001) is less than 5%. Therefore, hypothesis 1 of the study is confirmed at 95% assurance level. There is a significant relationship between board members stock and liquidity. Because in addition to having negative signs of regression coefficients of the related variable (-2.36), its significance level (0.000) is less than 5%. Therefore, hypothesis 2 of the study is confirmed at 95% assurance level.

There is a significant relationship between board reward and liquidity. Because in addition to having negative signs of regression coefficients of the related variable (-0.0929), its significance level (0.0276) is less than 5%. Therefore, hypothesis 3 of the study is confirmed at 95% assurance level.

There is a significant relationship between separation of chairman from the board and liquidity. Because in addition to having positive sign of regression coefficients of the related variable (0.013), its significance level (0.039) is less than 5%. Therefore, hypothesis 4 of the study is confirmed at 95% assurance level.

There is a significant relationship between variability of chairman and liquidity. Because in addition to having positive sign of regression coefficients of the related variable (0.97), its significance level (0.00) is less than 5%. Therefore, hypothesis 5 of the study is confirmed at 95% assurance level.

**Conclusions**

The main purpose of this study is to investigate the relationship between corporate governance and the dimensions of liquidity in the Iranian capital market. The present study is important in that it is one of the first internal studies to investigate this issue and, therefore, can help the development of accounting and auditing literature in developing countries, including Iran. To achieve this goal, a sample of 120 companies listed on the Tehran Stock Exchange was considered. The first hypothesis of this study has tested the relationship between outside directors to total members and stock liquidity. The result of testing this hypothesis indicates that there is a significant relationship between outside directors to total members and stock liquidity. The second hypothesis of this study has tested the relationship between shares owned by directors and stock liquidity. The result of testing this hypothesis indicates that there is a significant relationship between shares owned by directors and stock liquidity.

Because in addition to having positive signs of regression coefficients of the related variable (0.9249), its significance level (0.001) is less than 5%. Therefore, hypothesis 1 of the study is confirmed at 95% assurance level. There is a significant relationship between board members stock and liquidity. Because in addition to having negative signs of regression coefficients of the related variable (-2.36), its significance level (0.000) is less than 5%. Therefore, hypothesis 2 of the study is confirmed at 95% assurance level.

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the public and relevant institutions so that investors can assess corporate governance and liquidity status before buying and selling and include these criteria in their decisions. According to the fact that financing is one of the ways to finance their projects, so it is suggested to companies to establish a corporate governance system, cause public participation of a large number of investors, increase liquidity and reduce the cost of financing themselves.

References