

The Impact of Corporate Governance on Firm Performance: Evidence from Iran

Fatemeh. Mehrabani

Assistant Professor Department of Management and
Economic, Islamic Azad University Ahwaz Branch
Ahwaz, Iran

Yadollah. Dadgar

Associate Professor of Economics, Economic Law
Department Beheshty University,
Tehran, Iran

Abstract— This paper considers three main purposes: examining corporate governance in listed companies on Tehran Stock Exchange (TSE), calculating the corporate governance quality index for 9 selected industries on TSE, and examining the impact of corporate governance (CG) and its indices on the performance of 110 selected companies listed on TSE over the period from 2001 to 2010. The main conclusions to be drawn from this study are as follows: First a deep gap exists between CG and relevant laws in Iran and the international standards which necessitate reforming the governance laws and regulations in Iran's capital market. Second the CG quality index calculated for most industries is very low which indicates weak financial system and unclear performance of selected companies. Third the examination of the effect of CG indices on the selected firms' performance suggests that most of these indices affect the performance positively and the positive relation between CG and performance is approved was recognized.

Keywords-component; corporate governance, transparency, commitment, corporate governance quality index, firm performance, Tehran Stock Exchange (TSE)

I. INTRODUCTION

A growing body of empirical research has shown that good corporate governance (GCG) contributes to sustainable economic development by enhancing the performance of companies and increasing their access to external capital. It reduces the vulnerability of firms to financial crises, reinforces property rights, reduces transaction costs and cost of capital, and leads to capital market development. For example well-governed firms in Korea traded 160 percent higher than poorly governed firms or in Russia, companies improving from worst to best in corporate governance can attain to 70000 percent increase in firm value (IFC,2008). According to Gompers Ishii, and Metrick [1], study relating corporate governance practice and firm performance during 1990s, they found that stock returns of firms with strong shareholder rights outperform, on risk-adjusted basis, returns of firms with weak shareholder rights by 8.5% year during this decade. Mitton [2], use data of 398 firms Korean, Malaysian, Indonesian, Philippines and Thailand to considering relationship between corporate governance and firm performance during East Asian crisis in 1997 and 1998. Study results shown that better price performance is associated with firms that have indexes of higher disclosure quality, with firms that have higher outside

ownership concentration and with firms that are focused rather than diversified. Javad and Iqbal [3], they investigated whether differences in quality of firm-level corporate governance can explain the firm-level performance in a cross-section of companies listed at Karachi Stock Exchange. To achieve this, they analyzed the relationship between firm-level value as measured by Tobin's Q and total Corporate Governance Index (CGI) and three sub-indices: Board, Shareholdings and Ownership, and Disclosures and Transparency for a sample of 50 firms. The results show that corporate governance does matter in Pakistan, but not all elements. The board composition and ownership and shareholdings enhance firm performance, whereas disclosure and transparency has no significant effect on firm performance. Aggarwal et al. [4], used Institutional Shareholder Services data for 2005 to compare the governance of foreign firms to the governance of similar US firms. They found that foreign firms generally had worse governance than comparable U.S. firms. They examined the relationship between governance and firm value, measured by Tobin's Q, and found that the gap in governance between the foreign and comparable U.S. firms was strongly related to firm value. Bauer et al. [5], they studied whether Japanese firms with many governance provisions have a better corporate performance than other firms? They found that well-governed firms significantly outperform poorly governed firms by up to 15% a year. As well they found all governance categories not affect firms' performance. Bebchuk et al. [6], argue that not all corporate governance features matter to all firms. They show, for example, that only practices associated with shareholder rights and takeover defenses affect the performance of U.S. firms. Brown and Caylor [7], using 51 factors, 8 sub categories for 2327 U.S. firms based on dataset of institutional shareholder service considered the relation between corporate governance and firm performance. They found that better governed firms are relatively more profitable, more valuable and pay more cash to their shareholders. Yermack [8], found inverse relation between board size and profitability, asset utilization, and Tobin's Q which conform this hypothesis. Dadgar and Nadri [9], considered good corporate governance (GCG) in capital markets of Muslim countries (CM) and then compared the actual performance of CM with non-Muslim countries. They found that the more consistency Muslim countries have with Islamic teachings, the

more degrees of GCG are obtained in CMs. Lefort and walker [10], studied whether corporate governance practices at the firm level within a single country affected those firms' market valuation. This question is crucial to assess the potential benefits for firms to change their own practices, even though; they cannot affect their country's rules. In particular, the Chilean case presents at least three interesting features that make its study especially relevant for other emerging economies. First, the Chilean corporate structure presents highly concentrated ownership, widespread use of pyramid structures to separate cash from control rights and opaque ultimate ownership identification. Second, an amendment to Securities Market Law and Corporation Law was recently passed with the intention to improve corporate governance in Chile. Finally, the Chilean capital market is relatively developed with a large participation of institutional investors for more than two decades. They found that firms that present higher coincidence between cash and control rights tend to be consistently more valued by the market. They interpreted this result as an indication that potential conflicts of interest between controllers and minority shareholders are penalized by the Chilean capital market.

It should be mention that, since the late 1990s there have been major world-wide changes in corporate governance laws and regulations aimed at improving CG in many countries, while the CG code introduced by TSE in the late 2007 was a major step in CG reforms in Iran. The major strengths include reforms of board of directors regarding board compensation polices, improved internal and external audits, ownership concentration and risk management. However, the code limits the directors' independence and provides no guidance on external control, shareholder rights protection, and the role of stakeholder rights.

The main focus of this paper is to estimate corporate governance quality index (CGQI) and examine the impact of corporate governance on firm performance for listed Tehran stock exchange (TSE) firms. We attempt to consider the position of corporate governance in TSE by evaluating CGQI, identify the relationship between corporate governance proxies and firm value in our sample of TSE firms, and address these two questions: Do CG indices have desired position? And do improvements in CG give a rise to firms' performance? We find that corporate governance in Iran capital market in contrast to developed markets is characterized by lesser quality of transparency and disclosure that leads to reduced desirability of Iranian capital market to attract new capital and foreigner investors. Shareholders' basic rights, especially minority shareholders, are not well protected in Iran. Central Depository Committees do not exist in Iran so the shareholding process of shareholders cannot be recorded. The minority shareholders cannot participate in AGM and do not have a representative among board members as well as a suffrage in AGM for electing board members. Furthermore, their dividends are never paid at the appointed time. On the other hand our investigation indicate that improving CG regulations, CG quality index may have noticeable effect on improvement of transparency and performance of listed

companies which can, in its turn, lead to new capital absorption, capital market boom, and increased utility of Iran's capital market for foreign investors.

The reminder of this paper is structured as follows: section 2, notes the sample and data, description of the CGQI and its components, and performance regression for TES sample firms; section 3, presents the results on CGQI position in TSE, and relation between corporate governance and firms performance; and section 4, conclusion.

II. DATA AND ESTIMATION

A. *Data*

In this section we discuss the data sources for corporate governance quality index (include Accounting Standard, Earning smoothing and stock price synchronicity indicators), corporate governance indexes (include, board, shareholders rights and ownership, transparency and disclosure and commitment variables), performance, and control variables. It should be mention that the data of the present research are drawn from different sources. To do so, 110 TSE listed companies were selected among 9 industries for the period 2001 to 2010. Then the data were extracted from companies' published financial reports by TSE, companies' website, Codal website, and two relevant applications.

B. *Corporate Governance quality Index*

CGQI is a simple average of three indicators Accounting Standards (AS), Earning Smoothing (ES), and Stock Price Synchronicity (SPS) (Nicolò, Laeven, Ueda [11]). These indicators are constructed based on TSE data for samples of financial and non-financial listed companies of 9 industries in the stock market.

1) *Accounting standards*

The first indicator is a simple measure of the amount of accounting information firms disclose, and is constructed similarly based on the index reported by TSE for each of 110 selected companies from selected industries during 2001-2010.

2) *Earning smoothing*

The second indicator is a measure of "earnings opacity" proposed by Leuz et al. [12], and Bhattacharya et al. [13]. It tracks the extent to which managers may conceal the true performance of firms using accruals to smooth fluctuations of annual profits. Specifically, it is the rank correlation between cash flows (before any accounting adjustments) and profits (after accounting adjustments) across a set of firms at each point in time. This indicator is an important complement to the first indicator, since a large number of reported accounting items may be meaningless if accounts are seriously manipulated or misrepresented. Our measures are calculated for each year. Accruals (AS) are estimated as:

$$ACC_{it} = (\Delta CA_{it} - \Delta Cash_{it}) - (\Delta CL_{it} - \Delta STD_{it} - \Delta TP_{it}) - Dep_{it}$$

Where CA denotes current assets, $Cash$ is cash and cash equivalents, CL are current liabilities, STD is short-term debt and the current portion of long-term debt, TP is income tax payable, and Dep denotes depreciation and amortization. Since

cash flow statements are not widely reported in Iran, cash flow from operations (ECF) is estimated by subtracting accruals (AS) from operating income (OI):

$$ECF_{it} = OI_{it} - AS_{it} \quad (2)$$

Cross-sectional earnings smoothing is then measured by the correlation ((ACC/TA), (ECF/TA)) that is defined as the correlation between the regression residual of (ACC/TA) and the regression residual of (ECF/TA).

3) Stock price synchronicity

The third indicator is a measure of stock price synchronicity proposed by Morck et al. [14], given by the average goodness-of-fit (R^2) of regressions of each company's stock return on industries-average return each year. More synchronous stock prices are found in industries in which CG is poor and financial systems are less developed.

$$R_{cit} = \beta_0 + \beta_{1it} R_{mt} + \varepsilon_{it} \quad (3)$$

Where R_{cit} is return of stock i at week t and R_{mt} is market return at week t . Following Morck, Yeung and Yu [15], synchronicity can be defined as:

$$SPS = LOG\left(\frac{R^2}{1-R^2}\right) \quad (4)$$

Where R^2 is the coefficient of determination from the estimation of equation (3) for firm i in year t .

C. Corporate Governance and Firm Performance

To examine the relationship between CG and firm performance, some variables are introduced as proxies for CG principles:

Board Variables:

- **B SIZE:** Board size, total number of board members.
- **CEO:** CEO dummy equals 1 if CEO is separate from chairman of board.
- **SOEXT:** Board fraction external, percentage of external board members.

Shareholders and Ownership:

- **OWN:** number of block holders.
- **SOBLOCK:** Total block holdings, percentage of common shares owned by all block holders.
- **CO:** CO dummy equals 1 if the firm has a block holder with 25% common shares owned.

- **SOMINOR:** percentage of common shares owned by all minority shareholders.
 - **SOFIN:** Financial block holdings, percentage of blocks of common shares owned by financial institutions.
- Transparency and disclosure
- **INAUDIT:** dummy variable, equal 1 if firm has internal audit committee
 - **DIC:** Rank of firm transparency based on reliability and timely provision of financial information presented by the firm which is published annually by TSE.
- Firm performance variables
- **ROA:** return on asset
 - **ROE:** return on equity
 - **R:** stock return
 - **Q:** Tobin Q
 - **P:** profit margin

Control variables

- **FSIZE:** Firm size: book value of total assets
- **FAGE:** Firm age. Natural logarithm of number of years of listing at TSE [Shin and Stulz [16]]. It seems the longer be the period of listing the more chances would be available for investors to get familiar with investment strategy of the firm and the less likely of information asymmetry and this limits the ability of firm to impose poor practice.
- **LNGROWTH:** Net sale growth of firm
- **LEVERAGE:** Book value of debt divided by book value of total asset

Based on earlier discussion, the following model is identified for estimation:

$$Perform_{it} = \alpha_0 + \alpha_1 CEO_{it} + \alpha_2 BSIZE_{it} + \alpha_3 SOEXT_{it} + \alpha_4 OWN_{it} + \alpha_5 SOBLOCK_{it} + \alpha_6 CO_{it} + \alpha_7 SOMINOR_{it} + \alpha_8 SOFIN_{it} + \alpha_9 INAUDIT_{it} + \alpha_{10} DIC_{it} + \alpha_{11} LEVERAGE_{it} + \alpha_{12} FSIZE_{it} + \alpha_{13} FAGE_{it} + \alpha_{14} LNGROWTH_{it} + \varepsilon_{it} \quad (5)$$

III. EMPIRICAL RESULTS

According to Table I, except industries of food and beverages, extraction of metal minerals and other mining, and cement other industries have a relatively good condition regarding the index of synchronicity which indicates the

weakness and strength of CG and financial system within the industries.

About the index of earning smoothing, it is necessary to say that it is of an undesirable situation in all industries except petroleum products, coke, and nuclear fuel which indicates that managers in selected companies have concealed the real performance of the firms.

Regarding the index of accounting standards, which implies the reliability and trustworthiness and timeliness of published information by companies, it can be seen that it is 0.5 or less than 0.5 for most industries that is not so promising.

Examination of CGQI reveals, on the one hand, that it is very low for most industries and far apart from relevant international standards. On the other hand, since it is expected that improved CGQI leads to a positive impact on some economic variables at the macro level such as firms' productivity, new capital absorption, firms' better performance at the micro level, economic growth, total nation-wide productivity, investment, and financial development, and since the Iran's capital market authorities are aiming at absorbing foreign capital the need for structural reforms to improve CG and its quality index in Iran is of importance and necessity.

TABLE I. CGQI AVERAGE FOR SELECTED INDUSTRIES 2001-2010¹

Industry	SPS	ES	AS	CGQI
Food and beverages	-0.09171	0.03744	0.477	0.141
Extraction of metal minerals and other mining	0.0337	0.0479	0.5032	0.194
Basic metals	0.6155	-0.1628	0.327	0.259
Cement	0.3613	-0.1154	0.721	0.322
Petroleum products, coke, and nuclear fuel	0.9079	0.7531	0.549	0.736
Chemical products	0.909	-0.1033	0.423	0.439
Pharmaceutical	0.7376	-0.0646	0.660	0.250
Automotive	0.8819	-0.266	0.338	0.172
Investment	0.9586	-0.1864	0.595	0.456

Source: Researchers Calculating

Table II, summarizes our main results of the relationship between CGI and performance. Our findings are mostly comparable with studies done for other economies. The results indicate that most of the variables have shown correct signs and are statistically significant. It can be seen that in Model (1), variables *SOBLOCK*, *SOMINOR*, *DIC*, *LEVERAGE*, *FSIZE*, and *LNGROWTH* are statistically significant. The first two variables express the fact that the more the amount of shares owned by block holders and the minority, the more capital has been absorbed by the firm which has positive effect

1-10 selected companies in food and beverages, 7 selected companies in metal minerals and other mining, 12 selected companies in basic metals, 12 selected companies in cement industries, 2 selected companies in petroleum products, coke, and nuclear fuel, 17 selected companies in chemical products, 19 selected pharmaceutical companies, 12 selected companies in automotive, 18 selected companies in investment.

on the firms' performance. As well, the higher the rank of transparency, the more capital they can attract.

Regarding Model (2), it is seen that the variable *BFSIZE* (board size) has Positive impact on ROE. Variable *DIC* (the degree of transparency) has Positive impact on the firm performance too because the higher rank in respect to transparency causes the equity return to increase. The percentage of shares owned by block holders and the minority as well as the amount of companies' sale has positive effect.

Model (3), which examines the relationship between Tobin's Q and CG, indicates that most of CG indices have an impact on this operational indicator.

Model (4), indicates that only the percentage of shares owned by Block holders and minority shareholders have effect on performance indicator.

Eventually Model (5) indicates that most of CG indices affect on firms' profit margin as a performance (operational) indicator. The negative sign of *CO* implies that the presence of more block holders causes interest conflict and raises their influence in board's making essential decisions. This causes the board moves towards meeting the interests of block holders rather than those of all shareholders and the company itself and thereby declines the profit.

TABLE II. EVIDENCE ON FIRM PERFORMANCE AND CGI

Variable	Model(1) ROA	Model(2) ROE	Model(3) Q	Model(4) R	Model(5) P
C	0.152 (0.5889)	0.99 (0.0025)	0.79 (0.8011)	0.45 (0.1348)	0.805 (0.0000)
CEO	0.005 (0.8852)	0.111 (0.1007)	0.064 (0.046)	0.180 (0.8696)	0.0104 (0.8233)
BFSIZE	0.0014 (0.3059)	0.00105 (0.0154)	0.0013 (0.899)	0.032 (0.0545)	0.0007 (0.3159)
SOEXT	0.017 (0.8103)	0.120 (0.132)	0.295 (0.0017)	0.497 (0.8243)	0.268 (0.0000)
SOBLOCK	0.0059 (0.0097)	0.0078 (0.0003)	0.0059 (0.0001)	-0.180 (0.0027)	-0.0029 (0.0011)
CO	-0.020 (0.7116)	0.0074 (0.932)	0.086 (0.169)	0.751 (0.6333)	-0.085 (0.0131)
SOMINOR	0.0062 (0.0072)	0.0073 (0.0012)	0.0058 (0.0003)	0.134 (0.0256)	0.003 (0.0013)
SOFIN	0.0003 (0.2045)	0.0003 (0.431)	0.000184 (0.788)	-0.012 (0.324)	0.00064 (0.0014)
INAUDIT	0.0816 (0.1291)	-0.0040 (0.429)	0.0149 (0.677)	0.0217 (0.984)	0.072 (0.0419)
DIC	0.093 (0.0025)	0.249 (0.0000)	0.059 (0.154)	0.992 (0.141)	-0.048 (0.062)
LEVERAGE	-0.063 (0.0473)	-0.0541 (0.364)	0.0075 (0.8701)	-0.924 (0.475)	-0.1048 (0.0000)
FSIZE	0.0020 (0.0021)	0.037 (0.0001)	0.0012 (0.151)	0.677 (0.0003)	0.0063 (0.1539)
LNGROWTH	0.0067 (0.0380)	0.0053 (0.407)	-0.0061 (0.222)	0.136 (0.224)	0.0027 (0.2733)
R^2	0.43	0.63	0.22	0.26	0.67
DW	1.98	1.56	1.99	1.96	1.56

Source: Researchers Calculating

IV. CONCLUSION

Corporate governance is a new concept that has entered Iran's economy for less than a decade so that the first code in this field was developed in the late of 2007, but it does not cover all aspects of CG. Whereas CG and its changes have obtained a great deal of significance and ample studies have been carried out about CG practice, studies on CG in Iran are few. Since Iranian capital market authorities are making attempt to boom and attract more investors, including domestic and foreign, to this market, the best choice to achieve this is to strengthen and expand CG because CG leads to increased transparency of listed companies' performance in securities market. It also makes it possible for investors to distinguish between successful and unsuccessful firms, and thereby it results in increased trust in capital market due to transparency and companies' understanding of their distance from each other. This encourages not only them to find appropriate strategies to decrease the distance from more successful firms but also successful ones to reinforce their status.

Eventually, all these factors will result in increased efficiency, prosperity, success of capital market. The present paper made an effort to calculate CGQI for selected industries and examine the impact of CG on firms' performance. Our findings suggest that CG is poorly performed in Iran and is so far from international standards. This fact emphasizes the structural reforms in CG and the relevant indices and codes more than ever.

Hence, it is strongly recommended that capital market authorities set out to establish a CG committee and enjoy technical assistance of international organizations such as World Bank, Asian Development Bank (ADB), OECD, and IFC. Also the calculation of CGQI for selected industries revealed that most of the companies are not in an appropriate situation regarding accounting standards. Earning smoothing index indicates that the managers in most companies conceal their real performance implying little transparency and trustworthiness regarding operational information published by them. Examination of CG's impact on 110 companies' performance suggest a positive relationship so that companies enjoying better CG have better performance too, so CG leads to improved firms performance which is another evidence for necessary structural reforms in Iranian capital market.

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