The Impact of Corporate Governance and Financial Leverage on the Value of American Firms

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Abstract

This study examines the impact of corporate governance and financial leverage on the value of American firms. This study also seeks to extend the findings of Gill and Mathur (2011a). A sample of 333 firms listed on New York Stock Exchange (NYSE) for a period of 3 years from 2009-2011 was selected. The co-relational and non-experimental research design was used to conduct this study. Overall, findings show that larger board size negatively impacts the value of American firms, and CEO duality, audit committee, financial leverage, firm size, return on assets, and insider holdings positively impact the value of American firms. The impact of corporate governance and financial leverage differs between manufacturing and service industries. Results show that board size negatively impacts the value of American manufacturing firms, and CEO duality, audit committee, financial leverage, firm size, and insider holdings positively impact the value of American manufacturing firms. Findings also show that board size negatively impacts the value of American service firms, and financial leverage and return on assets positively impact the value of American service firms. This study contributes to the literature on the factors that affect firm value. The findings may be useful for financial managers, investors, and financial management consultants.

Keywords: CEO duality, Board size, Audit committee, Insider holdings, Financial leverage, Firm size, Firm value.

1. Introduction

Maximizing shareholders' wealth is one of the corporate goals that cannot be ignored. The market value of the firm is an important measure of the shareholders' wealth. Corporate governance and financial leverage play a big role in maximization of shareholders' wealth. While good corporate governance plays an important role in increasing market value of the firm (Black, 2001; Klapper and Love, 2004; Gompers *et al.,* 2003; Beiner and Dchmid, 2005; Rouf, 2011; Gill and Mathur, 2011a), higher financial leverage decrease firm value by increasing bankruptcy risk. Therefore, sound

corporate governance and an optimal capital structure are necessary for every firm to enhance the market value of the firm. Corporate governance is defined as the system by which business corporations are directed and controlled (Kajola, 2008, p. 16). An optimal capital structure includes some debt, but not 100% debt. It is a "best" debt/equity ratio for the firm that minimizes the cost of financing and reduces the chances of bankruptcy (Gill, Biger, and Mathur, 2011). Cuong and Canh (2012) found that the optimal debt ratio (total debt to total assets ratio) should not exceed 59.27% because a higher debt ratio negatively impacts firm value.

The financial scandals (e.g., Livent Inc., Corel Corporation, and Nortel) around the world and collapse of major institutions in the USA (e.g., Enron, World Com, Commerce Bank, and XL Holidays) have shaken investors' faith in capital markets and the efficacy of existing corporate governance practices in promoting transparency and accountability (Gill and Mathur, 2011b). The shaken faith of investors has a negative impact on the market value of share and consequently overall value of the firm. On the other hand, higher financial leverage increases the chances of bankruptcy, which in turn, shake investors' faith in capital markets. Thus, both corporate governance and financial leverage impact on the value of the firm.

While Berle and Means (1932) were the first authors of corporate governance theory, Modiglani and Miller (1958) pioneered capital structure theory. Since those time periods, different authors tried to follow their paths to develop new theories. For example, Jensen and Meckling (1976) defined agency relationship (i.e., a contract between agent and principal to perform services on behalf of the principal).

Since growth in firm value is very important to maximize shareholders' wealth and to achieve overall corporate goals and objectives, it is important to explore all the possible factors that impact the value of the firm. Corporate governance and financial leverage of firms are important factors that impact on the value of the firm. Therefore, this study examines the impact of corporate governance and financial leverage on firm value. The results can be generalized to service and manufacturing firms.

The proxy variables were selected from previous empirical work. The set of proxy variables includes nine factors: CEO Duality, Board Size, Audit Committee, Financial Leverage, Firm Size, Return on Assets, Insider Holdings, Industry Dummy, and firm value.

This study contributes to the literature on the relationships between corporate governance, financial leverage, and firm value in at least two ways. First, it focuses on American firms while very limited research has been conducted on such firms recently. Second, this study validates the findings of previous authors by testing the relationships between corporate governance, financial leverage, and firm value of the sample firms. Thus, this study adds substance to the existing theory developed by previous authors.

2. Literature Review

Good corporate governance is an important factor in improving the value of the firm. The impact of corporate governance differs country to country because of disparate corporate governance structures resulting from dissimilar social, economic, and regulatory conditions (Rouf, 2011). This is also the case with financial leverage. Financial leverage has different impacts on the value of the firm country to country because of the different tax brackets and tax laws of different countries.

Corporate governance, in the context of this study, is defined as set of processes, customs, policies, laws, and institutions affecting the way the firm is directed and controlled (Rouf, 2011). According to Kajola (2008, p. 17), the business of a firm is managed under the direction of a board of directors who delegates to the CEO and other management staff (the day to day management of the affairs of the firm). The directors, with their wealth of experience, provide leadership and direct the affairs of the business with a high sense of integrity, commitment to the firm, its business plans, and long-term shareholder value.

It is believed that larger board size negatively impacts the value of the firm. Rouf (2011, p. 238) argues that small board size is generally believed to improve the value of the firm because the benefit

by larger boards of increased monitoring are outweighed by the poor communication and decision making of larger groups. Lipton and Lorsch (1992) and Jensen (1993) also indicate that the larger board size is less effective. It is, however, believed that if the CEO is the Chairman of the Board, the firm value improves because CEO duality improves firm performance (Ramdani and Witteloostuijn, 2010).

The audit committee also plays an important role in the improvement of firm value by implementing corporate governance principles. The principles of corporate governance suggest that the audit committee should work independently and perform their duties with professional care. The audit committee monitors mechanisms that improve quality of information flows between shareholders and managers (Rouf, 2011, p. 240), which in turn, help minimize agency problems.

Although, insider holding contributes to enhancing firm value, its impact differs market to market. Bhabra (2007) found that firm value is sensitive to differences in governance structures across markets. The empirical studies on the impact of corporate governance and financial leverage on firm value are as follows:

Black (2001) collected data from Russia and found that a firm's corporate governance behavior can have a huge effect on its market value.

Gompers *et al.* (2003) used incidence of 24 governance rules to construct a "Governance Index" to proxy for the level of shareholder rights at about 1,500 large firms from the USA during the 1990s. The authors found that the firms with stronger shareholder rights had higher firm value; that is, strong corporate governance improves the value of the firm.

Klapper and Love (2004) used data on firm-level corporate governance rankings across 14 emerging markets to conduct research on corporate governance. Their results suggest that firms can partially compensate for ineffective laws and enforcement by establishing good corporate governance and providing credible investor protection.

Mak and Kusnadi (2005) collected data from Singapore and Malaysia, and found a negative relationship between the board size and firm value.

Sharma (2006) took a sample of Indian manufacturing firms and found a positive relationship between firm value and financial leverage.

Pattanayak (2008) examined the effect of insider ownership on corporate value in India for the periods of 2000-2001 and 2003-2004, using 1833 Bombay stock Exchange listed firms. The author found that firm value (measured by Tobin's Q) increases as ownership by insiders rises.

Rouf (2011) examined Bangladeshi firms and found a positive relationship between CEO duality and firm value.

Gill and Mathur (2011a) took a sample of 91 Canadian manufacturing firms listed on the Toronto Stock Exchange (TSX) for a period of three years [from 2008-2010] and found that board size negatively impact of firm value, and CEO duality, firm size, and return on assets positively impact the firm's value.

Ryu and Yoo (2011) collected data from Korea and found a positive relationship between firm value and inside management ownership.

Ruan, Tian, and Ma (2011) used data of Chinese firms and found that managerial ownership negatively impacts the ratio of total debt to total assets and the ratio of total debt to total assets negatively impacts firm value.

Cheng and Tzeng (2011) collected data from 645 companies listed in the Taiwan Securities Exchange (TSE) from 2000-2009 and found a positive relationship between leverage and firm value.

Adeyemi and Oboh (2011) took a sample size of 90 firms from Nigeria and found that the market value of a firm is positively influenced by its choice of capital structure (financial leverage).

Cuong and Canh (2012) used a data set that included a combination of SEAs (seafood processing enterprises) listed on two of Vietnam's stock exchange markets from 2005 - 2010. The authors found that the optimal debt ratio (total debt to total assets ratio) of less than 59.27% enhances firm value.

In summary, the literature review shows that both corporate governance and financial leverage affect firm value.

3. Methods

The co-relational and non-experimental research design was used to conduct this study.

3.1. Measurement

To remain consistent with previous studies, measures pertaining to i) CEO Duality, Board Size, Audit Committee, and Tobin's Q were taken from Kyereboah-Coleman (2007), ii) Financial Leverage, Firm Size, and Return on Assets were taken from Gill and Mathur (2011b), and iii) insider holdings were taken from Abor and Biekpe (2007).

Table 1 shows the measurements of the dependent, independent, and control variables that impact on firm value.

Table 1: Proxy Variables and their Measurements

Regression Equation:

$$Q = \alpha + \beta_1 CD_{it} + \beta_2 BS_{it} + \beta_3 AC_{it} + \beta_4 FL_{it} + \beta_5 FS_{it} + \beta_6 ROA_{it} + \beta_7 IH_{it} + \beta_8 Ind_{it} + \mu_{it}$$

Variables	Measurement
Firm Value (Dependent Variable - $Q_{i,t}$)	Q = (Market value of equity + Book value of debt) / Book value of total assets
CEO Duality (Independent Variable - $CD_{i,t}$)	Assigned value 1 if same person occupied the post of the chairperson and the CEO and 0 for otherwise
Board Size (Independent Variable - $BS_{i,t}$)	Measured as total number of directors serving on board
Audit Committee (Independent Variable - $AC_{i,t}$)	Measured as total number of audit committee members
Financial Leverage (Independent Variable - $FL_{i,t}$)	FL = Total liabilities / Total assets
Firm Size (Control Variable - $FS_{i,t}$)	Measured as log of total assets
Return on Assets (Control Variable - $ROA_{i,t}$)	Net income / Total assets
Insider Holdings (Control Variable - $IH_{i,t}$)	Measured as percentage of insider share holdings
Industry Dummy (Control Variable - $Ind_{i,t}$)	Assigned value 1 for manufacturing industry and 0 for service industry

$\mu_{i,t}$ = the error term
$Q_{i,t}$ = Value of firm i in time t
Q = Tobin's Q

3.2. Data Collection

A database was built from a selection of approximately 800 financial-reports that were made public by publicly traded companies between January 1, 2009 and December 31, 2011. The selection was drawn from Mergent Online [http://www.mergentonline.com/compsearch.asp] to draw a random sample of American firms. Out of approximately 800 financial-reports announced by public companies between January 1, 2009 and December 31, 2011, only 333 financial reports were usable. The cross sectional yearly data were used in this study. Thus, 333 financial reports resulted in 999 total observations. Since a random sampling method was used to select companies, the sample is considered as a representative sample.

For the purpose of this study, certain industries were omitted due to the type of activity. For example, all financial services companies were omitted. In addition, some of the firms were not included in the data due to lack of information for the time periods under study.

3.3. Descriptive Statistics

Table 2 shows descriptive statistics of independent, dependent, and control variables. The explanation on descriptive statistics is as follows:

(i)   Total observations: 333 x 3 = 999
(ii)   BS: 10.25 millions
(iii)   AC: 4.09
(iv)   FL: 54%
(v)   ROA: 7%
(vi)   IH: 8%
(vii)   Q (Tobin's Q): 3.08

Table 2:   Descriptive Statistics (2009-2011)

	Minimum	Maximum	Mean	Std. Deviation
BS	3	18	10.25	2.34
AC	1	10	4.09	1.37
FL	0.08	0.97	0.54	0.18
FS	1.87	5.13	3.51	0.62
ROA	-0.020	0.35	0.07	0.05
IH	0.01	0.88	0.08	0.14
Q	1.08	25.71	3.08	2.95

3.4. Bivariate Correlation Analysis

The Pearson correlation was used to measure the degree of the linear association between independent and dependent variables. It was used to find how closely related two variables are (e.g., CD and Q). This relationship is assumed to be linear, and the correlation is a measure of how tightly clustered data points are about a correlation line. Correlation ranges from -1 to +1.

Overall, Q is positively correlated with CD, AC, and FS. In the manufacturing industry, Q is positively correlated with CD, AC, FL, and FS. In the service industry, Q is positively correlated with FL and FS (see Table 3).

Table 3:   Pearson Bivariate Correlation Analysis

Entire Sample (N = 333)								
	Q	CD	BS	AC	FL	FS	ROA	IH	Ind
Q	1	0.117*	0.058	0.168**	0.405**	0.229**	-0.002	0.047	0.030
CD		1	0.067	0.063	-0.007	0.140*	0.063	-0.088	0.128*
BS			1	0.439**	0.252**	0.463**	-0.022	-0.109*	-0.082
AC				1	0.080	0.328**	-0.015	-0.117*	0.097
FL					1	0.354**	-0.247**	-0.053	-0.096
FS						1	-0.138*	-0.242**	-0.001
ROA							1	0.097	0.003
IH								1	-0.110*
Ind									1
Manufacturing Industry Sample (N = 183)								
	Q	CD	BS	AC	FL	FS	ROA	IH
Q	1	0.176*	0.076	0.195**	0.338**	0.249**	-0.010	0.057
CD		1	0.141	0.117	0.036	0.096	0.106	0.044
BS			1	0.532**	0.269**	0.563**	-0.040	-0.233**
AC				1	0.078	0.379**	0.005	-0.199**
FL					1	0.372**	-0.244**	-0.151*
FS						1	-0.046	-0.227**
ROA							1	0.093
IH								1

Table 3:   Pearson Bivariate Correlation Analysis Continued

Service Industry Sample (N = 150)									
		Q	CD	BS	AC	FL	FS	ROA	IH
Q		1	0.000	0.037	0.104	0.594**	0.201*	0.014	0.054
CD			1	0.007	-0.040	-0.029	0.200*	0.016	-0.178*
BS				1	0.348**	0.221**	0.345**	-0.002	-0.029
AC					1	0.107	0.257**	-0.042	-0.023
FL						1	0.337**	-0.252**	0.005
FS							1	-0.251**	-0.269**
ROA								1	0.103
IH									1

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)
Q = Tobin's Q
CD = CEO duality
BS = Board size
AC = Audit committee
FL = Financial leverage
FS = Firm size
ROA = Return on assets
IH = Insider holdings
Ind = Industry

4. Regression Analysis, Findings, Discussion, Conclusion, Limitations, and Future Research

Ordinary Least Square (OLS) multiple regression analysis was used to conduct data analysis. Multiple regression analysis is useful to find the influence of more than one independent variable on the dependent variable (Zainodin *et al.,* 2011) and it allows researchers to explicitly control for many other factors that simultaneously affect the dependent variable. Therefore, multiple regression analysis is useful to test the relationships between independent and dependent variables.

4.1. Regression Analysis and Findings

Overall, a negative relationship between BS and Q was found (see Table 4); that is, larger board size negatively impacts the value of American firms. Positive relationships i) CD and Q, ii) AC and Q, iii) FL and Q, iv) FS and Q, v) ROA and Q, and IH and Q were found; that is, CEO duality, audit committee, financial leverage, firm size, return on assets, and insider holdings positively impact the value of the American firms. A non-significant relationship between Ind and Q was found; that is, the impact of corporate governance and financial leverage differs between manufacturing and service industries.

In the manufacturing industry, a negative relationship between BS and Q was found (see Table 4); that is, larger board size negatively impacts the value of American manufacturing firms. Positive relationships i) CD and Q, ii) AC and Q, iii) FL and Q, iv) FS and Q, and v) IH and Q were found; that is, CEO duality, audit committee, financial leverage, firm size, and insider holdings positively impact the value of American manufacturing firms. A non-significant relationship between ROA and Q was found; that is, return on assets has no impact on the value of American manufacturing firms.

In the service industry, a negative relationship between BS and Q was found (see Table 4); that is, larger board size negatively impacts the value of American service firms. Positive relationships i) FL and Q and ii) ROA and Q were found; that is, financial leverage and return on assets positively impact the value of American service firms. Non-significant relationships between i) CD and Q, ii) AC and Q, iii) FS and Q, and iv) IH and Q were found; that is, CEO duality, audit committee, firm size, and insider holdings have no impact on the value of American service firms.

Table 4: OLS Regression Estimates on Factors Affecting Firm Value [a, b, c]

Entire Sample (N = 333)
$[R^2 = 0.238$; Adjusted $R^2 = 0.219$; SEE = 2.61; F = 12.64; ANOVA's Test Sig. = 0.000]
Regression Equation: Q = -3.132 + 0.595*CD - 0.219*BS + 0.370*AC + 6.834*FL + 0.611*FS + 6.225*ROA + 2.179*IH + 0.231*Ind

	Unstandardized Coefficients		Standardized Coefficients [c]	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-3.132	1.014		-3.089	0.002		
CD	0.595	0.294	0.101	2.025	0.044	0.954	1.048
BS	-0.219	0.075	-0.174	-2.929	0.004	0.668	1.496
AC	0.370	0.119	0.172	3.099	0.002	0.766	1.305
FL	6.834	0.867	0.425	7.883	0.000	0.809	1.236
FS	0.611	0.285	0.128	2.145	0.033	0.660	1.514
ROA	6.225	3.052	0.103	2.039	0.042	0.920	1.087
IH	2.179	1.045	0.105	2.084	0.038	0.921	1.086
Ind	0.231	0.297	0.039	0.778	0.437	0.940	1.064

Manufacturing Industry Sample (N = 183)
$[R^2 = 0.220$; Adjusted $R^2 = 0.189$; SEE = 3.16; F = 7.05; ANOVA's Test Sig. = 0.000]
Regression Equation: Q = -3.773 + 1.010*CD - 0.353*BS + 0.556*AC + 6.624*FL + 1.010*FS + 3.210*ROA + 3.961*IH

	Unstandardized Coefficients		Standardized Coefficients [c]	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-3.773	1.550		-2.435	0.016		
CD	1.010	0.488	0.141	2.071	0.040	0.959	1.043
BS	-0.353	0.139	-0.228	-2.532	0.012	0.549	1.821
AC	0.556	0.194	0.230	2.865	0.005	0.691	1.447
FL	6.624	1.465	0.339	4.521	0.000	0.792	1.262
FS	1.010	0.471	0.183	2.147	0.033	0.612	1.634
ROA	3.210	5.160	0.043	0.622	0.535	0.922	1.084
IH	3.961	2.091	0.133	1.895	0.060	0.911	1.098

Service Industry Sample (N = 150)
$[R^2 = 0.406$; Adjusted $R^2 = 0.376$; SEE = 1.65; F = 13.84; ANOVA's Test Sig. = 0.000]
Regression Equation: Q = -1.779 + 0.058*CD - 0.136*BS + 0.132*AC + 7.174*FL + 0.270*FS + 7.924*ROA + 0.636*IH

	Unstandardized Coefficients		Standardized Coefficients [c]	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.779	1.010		-1.761	0.080		
CD	0.058	0.280	0.014	0.208	0.835	0.923	1.083
BS	-0.136	0.063	-0.157	-2.153	0.033	0.785	1.273
AC	0.132	0.117	0.079	1.129	0.261	0.851	1.175
FL	7.174	0.794	0.643	9.035	0.000	0.826	1.211
FS	0.270	0.276	0.077	0.978	0.330	0.669	1.494
ROA	7.924	2.812	0.194	2.818	0.006	0.886	1.128
IH	0.636	0.851	0.051	0.747	0.456	0.898	1.114

[a] Dependent Variable: Q (Firm value)
[b] Independent Variables: CD, BS, AC, FL, FS, ROA, IH, and Ind
[c] Linear Regression through the Origin
SEE = Standard Error of the Estimate

Note that:
- A test for multicollinearity was performed. All the variance inflation factor (VIF) coefficients are less than 2 and tolerance coefficients are greater than 0.50. Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly correlated. Multicollinearity can be perfect if the correlation between two independent variables is equal to 1 or -1. The issue of multicollinearity arises when there is a strong linear relationship among two or more independent variables. VIF is useful to detect whether one predictor has a strong linear

association with the remaining predictors (Lazaridis and Tryfonidis, 2006). As a rule of thumb, tolerance of less than 0.10 and VIF greater than 9 indicate a multicollinearity problem. To explain further, VIF of 9 indicates that (all other things being equal) the variance of the ith regression coefficient is 9 times greater than it would have been if the ith independent variable had been linearly independent of the other independent variable(s) in the analysis. Thus, it explains how much the variance has been inflated by this lack of independence. VIF greater than 9 creates problems for researchers because it leads to poor results in regression analysis. The elimination of one or more of the independent variables that are highly correlated with the other independent variables can minimize poor regression results issues (O'Brien, 2007).

- Overall, Ind, FS, ROA, CD, IH, AC, FL, and BS explain 23.8% of the variance in Q.
- In the manufacturing industry, IH, CD, ROA, AC, FL, FS, and BS explain 22% of the variance in Q.
- In the service industry, IH, FL, AC, CD, ROA, BS, and FS explain 40.6% of the variance in Q.

4.2. Discussion and Conclusion

The purpose of this study was to find the impact of corporate governance and financial leverage on the value of American firms. Overall findings show that larger board size negatively impacts the value of American firms, and CEO duality, audit committee, financial leverage, firm size, return on assets, and insider holdings positively impact the value of American firms. The impact of corporate governance and financial leverage differs between manufacturing and service industries.

Results show that board size negatively impacts the value of American manufacturing firms, and CEO duality, audit committee, financial leverage, firm size, and insider holdings positively impact the value of American manufacturing firms.

Findings also show that board size negatively impacts the value of American service firms, and financial leverage and return on assets positively impact the value of American manufacturing firms.

The findings of this study lend some support to the findings of Black (2001), Gompers *et al.* (2003), Klapper and Love (2004), Mak and Kusnadi (2005), Sharma (2006), Pattanayak (2008), Rouf (2011), Gill and Mathur (2011a), Ryu and Yoo (2011), Cheng and Tzeng (2011), Adeyemi and Oboh (2011), and Cuong and Canh (2012). The findings of this study, however, contradict the findings of Ruan, Tian, and Ma (2011). Table 5 shows the summary of the findings of previous authors related to the impact of corporate governance and financial leverage on firm value.

Table 5: Previous Findings on the Impact of Corporate Governance and Financial Leverage on Firm Value

Author	Findings	Country/Markets
Black (2001)	Found that a firm's corporate governance behavior can have a huge effect on its market value.	Russia
Gompers *et al.* (2003)	Found that the firms with stronger shareholder rights had higher firm value; that is, strong corporate governance improves the value of the firm.	USA
Klapper and Love (2004)	Findings suggest that firms can partially compensate for ineffective laws and enforcement by establishing good corporate governance and providing credible investor protection.	Emerging Markets
Mak and Kusnadi (2005)	Found a negative relationship between the board size and the firm value.	Singapore and Malaysia
Sharma (2006)	Found a positive relationship between firm value and financial leverage.	India
Pattanayak (2008)	Found that firm value (measured by Tobin's Q) increases as ownership by insiders rises.	India
Rouf (2011)	Found a positive relationship between CEO duality and firm value.	Bangladesh

Table 5:   Previous Findings on the Impact of Corporate Governance and Financial Leverage on Firm Value - continued

Gill and Mathur (2011a)	Found that board size negatively impact of firm value, and CEO duality, firm size, and return on assets positively impact the firm's value.	Canada
Ryu and Yoo (2011)	Found a positive relationship between firm value and inside management ownership.	Korea
Ruan, Tian, and Ma (2011)	Found that managerial ownership negatively impacts the ratio of total debt to total assets and the ratio of total debt to total assets negatively impacts firm value.	China
Cheng and Tzeng (2011)	Found a positive relationship between leverage and firm value.	Taiwan
Adeyemi and Oboh (2011)	Found that the market value of a firm is positively influenced by its choice of capital structure (financial leverage).	Nigeria
Cuong and Canh (2012)	Found that the optimal debt ratio (total debt to total assets ratio) of less than 59.27% enhances firm value.	Vietnam

In conclusion, larger board size is not in the favor of American firms because it has a negative impact on the value of the firm. Therefore, American firms should use an optimal board size based on firm size.

The CEO duality improves the value of the firm. Therefore, it can be considered in favor of American firms. Although, CEO duality improves the value of the firm, it may not be beneficial for very large multinational firms. The CEO may take high risk to expand in the global market to increase the value of the firm. CEO duality may also lead to an agency problem. For example, the CEO may not work in the favor of internal and external stakeholders to maximize their wealth. Therefore, the CEO duality should be used with caution (Gill and Mathur, 2011, p. 11).

Results also show that audit committee, financial leverage, firm size, return on assets, and insider holdings improve the value of American firms. Although, financial leverage helps enhance firm value, higher financial leverage can lead to bankruptcy. According to Cuong and Canh (2012), the optimal debt ratio (total debt to total assets ratio) should not exceed 59.27% because a higher debt ratio negatively impacts firm value.

CEO duality, board size, audit committee, and financial leverage are positively correlated with firm size (see Table 3); that is, larger firm size leads to CEO duality, larger board size, larger audit committee, and higher financial leverage. Although, CEO duality and larger audit committee are in the favor of the firm, higher financial lavage should be used with caution because it can lead to bankruptcy. Large audit committee is, however, in the favor of the American firm because it helps improve the firm value by monitoring the CEO and board actions. Audit committee monitoring forces the CEO and board of directors to work in the favor of shareholders and maximize stakeholders' wealth. In addition, an audit committee minimizes agency problem by improving the flow of information between managers (agent) and shareholders (principal).

The positive impact of insider holdings (shareholdings by executives, managers, and employees) on firm value (see Table 4) explains that managers and employees work hard to maximize firm value, which in turn, maximizes shareholders' wealth. Therefore, stock options compensation for executives, managers, and employees may be beneficial for the American firms to improve their market values.

4.3. Limitations

The sample size of this study is small. This study is limited to American manufacturing and service firms. Therefore, the findings of this study could only be generalized to firms similar to those that were included in this research.

4.4. Future Research

Future research should include a large sample from different countries. Future study should include other variables such as board composition, CEO tenure, and institutional ownership.

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