February 2013

Coporate Governance, Institutional Ownership, and the Decision to Pay the Amount of Dividends: Evidence from USA

John Obradovich
Liberty University, jdobradovich@liberty.edu

Amarjit Gill

Corporate Governance, Institutional Ownership, and the Decision to Pay the Amount of Dividends: Evidence from USA

Amarjit S. Gill

Corresponding Author, Sessional Lecturer
The University of British Columbia (Okanagan Campus)
3333 University Way, Kelowna, BC Canada V1V-1V7
E-mail: agill02@shaw.ca
Tel: 250-807-8000

John D. Obradovich

Assistant Professor, Liberty University
1971 University Boulevard, Lynchburg, VA. 24502, USA
E-mail: jdobradovich@liberty.edu
Tel: (434) 582-2000

Abstract

The decision to pay dividends is influenced by many financial factors. The purpose of this study is to find the relationships between corporate governance, institutional ownership, and the decision to pay dividends in American service firms. A sample of 296 American firms listed on New York Stock Exchange (NYSE) for a period of 3 years (from 2009-2011) was selected. This study applied a co-relational and non-experimental research design. The findings of this study indicate that the decision to pay dividends is a positive function of board size, CEO duality, and internationalization of the firm, and a negative function of institutional ownership. The results show that when i) firm size is held constant, the decision to pay an amount of dividends is a positive function of CEO duality, board size, and internationalization, and a negative function of institutional ownership, ii) firm performance is held constant, the decision to pay dividends is a positive function of CEO duality, and a negative function of institutional ownership, iii) financial leverage is held constant, the decision to pay dividends is a positive function of CEO duality, board size, and internationalization, and a negative function of institutional ownership, and iv) firm growth is held constant, the decision to pay dividends is a negative function of institutional ownership.This study contributes to the literature on the factors that influence the decision to pay an amount of dividends. The findings may be useful for stock market investors, stakeholders, financial managers, and financial management consultants.

Keywords: Corporate Governance, Institutional Ownership, Dividend Payout, Firm Size, Firm Growth, Financial Leverage, Firm Performance.

1. Introduction
The decision to pay dividends runs through many tough challenges before it is finalized. The board of directors and the CEO (the CEO is also Chairperson of the board in most companies) face many tough

challenges such as pressure from shareholders/investors, debt covenants (e.g., firms cannot pay dividends if debt payments have been skipped or defaulted), and financing needs of the firm. According to Michael (2011), because of the economic meltdown, investors have started to desire high current dividends to meet their socioeconomic needs. The bird-in-hand theory of Gordon (1963) supports this reality.

Research on dividend payout started in 1956 with the seminal research work of Lintner (1956). Subsequently, Miller and Modigliani (1961) and Black (1976) developed theory on dividend payout. In their seminal work, Miller and Modigliani (1961) argued that given perfect capital markets, the dividend decision does not affect the firm value and is, therefore, irrelevant. However, most financial practitioners and many academics greeted this conclusion with surprise because the conventional wisdom at the time suggested that a properly managed dividend policy had an impact on share prices and shareholders' wealth.

Successful firms make profit which is distributed among stakeholders and used for future growth and prosperity. The board of directors and the CEO are required to make sound decisions related to earned income accumulated in retained earnings. The board of directors and the CEO have options to invest earned income in operating assets, to acquire securities, to retire debt, and/or distribute to shareholders in the form of cash dividends. However, issues arise when the board of directors and the CEO decide to distribute earned income among shareholders in the form dividends; that is, whether the distribution should be in the form of cash dividends, or passed on to shareholders by buying back some shares, and how stable the distribution should be. According to Brook *et al.* (1998) there is no reason to believe that corporate dividend policy is driven by a single goal. Black (1976) also argued that "the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together."

Institutional ownership also plays an important role in the decision to pay dividends. The ownership and control structure of the firm affects its dividend payout strategies. Where institutional ownership (i.e., high percentage shareholding by institutions such as mutual fund companies, pension funds, or endowments) is high, these stakeholders try to control the agency problem by controlling the dividend payout decision. Maury and Pajuste (2002, p. 16) explain that the basic motivation for the agency models of dividends is that unless a firm's profits are paid out as dividends, corporate managers may divert the cash flow for personal use or pursue unprofitable investment projects. Dividend payout can be seen as a means to reduce the free cash flow that managers can use at their own discretion (Jensen, 1986). As a consequence, outside shareholders may have a preference for dividends over retained earnings.

Although research on dividend payout started in 1956, and different authors have written on dividend payout policy, the controversy about why firms should pay dividends has not been satisfactorily resolved (Renneboog and Trojanowski, 2008). The decision to pay dividends, in the context of this study, is defined as a pattern of cash distribution to shareholders over time.

Literature shows a variety of variables that may affect the decision to pay a dividend. The selection of explanatory variables in this study is based on previous empirical studies related to dividend payout. The choice is sometimes limited, however, due to lack of relevant data. As a result, the final set of proxy variables includes ten factors: CEO Duality, Board Size, Institutional Ownership, Internationalization of Firm, Firm Size, Firm Performance (measured by return on assets), Financial Leverage, Firm Growth, Industry Dummy, and the decision to pay the amount of dividends.

This study contributes to the literature on the factors that influence the decision to pay dividends in at least two ways. First, it focuses on American firms while only limited research has been conducted on such firms recently. Second this study validates some of the findings of previous authors by testing the relationship between CEO Duality, Board Size, Institutional Ownership, Internationalization of Firm, Firm Size, Firm Performance, Financial Leverage, Firm Growth, Industry Dummy, and the decision to pay dividends of the sample firms. Thus, this study adds substance to existing theory developed by previous authors. The results may be generalized to manufacturing and service industries.

2. Literature Review

There are many reasons why companies should pay dividends or not. Gill, Biger, and Tibrewala (2010, p. 8) describe that dividend payout is important for investors because i) dividends provide certainty about the company's financial well-being, ii) dividends are attractive for investors looking to secure current income, and iii) dividends help maintain market price of the shares. Companies that have a long-standing history of stable dividend payouts would be negatively affected by lowering or omitting dividend distributions. These companies would be positively affected by increasing dividend payouts or making additional payouts of the same amounts because this sends a positive signal to the stock market. Furthermore, companies without a dividend history are generally viewed favorably when they declare new dividends. Thus, the board of directors and the CEO have to make tough decisions whether to pay dividends or not. If they pay dividends, the question becomes how much to pay per share?

Previous authors identified a number of factors that influence the dividend payout decision of the firm including profitability, risk, cash flow, agency cost, growth, corporate governance, and institutional ownership (Higgins, 1981; Rozeff, 1982; Lloyd *et al.*, 1985; Pruitt and Gitman, 1991; Jensen *et al.*, 1992; Alli *et al.*, 1993; Collins *et al.*, 1996; D'Souza, 1999; Maury and Pajuste, 2002; Amidu and Abor, 2006; Renneboog and Trojanowski, 2008; Gill, Biger, and Tibrewala, 2010); Subramaniam and Susela, 2011).Linter (1956) and Baker *et al.* (1985) explain that the dividend payment pattern of a firm is influenced by the current year's earnings and previous year's dividends.

Empirical studies on the relationship between corporate governance, institutional ownership, and the dividend payout decision are discussed as follows:

Baker *et al.* (1985) collected data from the U.S.A. and found that the anticipated level of future earnings is the determinant of dividend payment.

Pruitt and Gitman (1991) surveyed 114 financial managers from American firms and found that current and past years' profits are important factors in influencing dividend payments.

Collins *et al.* (1996) used Value Line Investment Survey from the U.S.A. and found a negative relationship between i) historical sales growth and dividend payout, and ii) firm's risk and the dividend payout.

Baker and Powell (2000) collected data from the NYSE (New York Stock Exchange) listed firms and found that dividend determinants are industry specific.

Maury and Pajuste (2002, p. 15) collected data from the Helsinki Stock Exchange, Finland and found that the separation of ownership and control through high-voting shares and pyramid control structures does not have a significant impact on dividend policy. The authors concluded that i) the firm's control structure affects the dividend payout policy and ii) dominant shareholders in control may collude in generating private benefits of control that are not shared with minority shareholders. Thus, high institutional ownership (i.e., high percentage shareholding by institutions such as mutual fund companies, pension funds, and/ or endowments) has a negative impact on the dividend payout decision.

Amidu and Abor (2006) derived data from the financial statements of firms listed on the Ghana Stock Exchange during a six-year period and found a positive relationship between corporate profitability and dividend payout ratios, and a negative relationship between historical sales growth and dividend payout.

Anil and Kapoor (2008) collected data from the Indian information technology sector and found that profitability has been considered a primary indicator of the dividend payout ratio.

Renneboog and Trojanowski (2008) sampled 985 UK firms and found that profitability is a crucial determinant of payout decisions, but the presence of strong block holders or block holder coalitions weakens the relationship between corporate earnings and the payout dynamics. Block holders appear to realize that an overly generous payout may render the company liquidity constrained, and consequently, result in a suboptimal investment policy. This lends some support to the "pecking order" of Myers (1984).

Ali-Shah (2009) collected data from Pakistani firms and found positive relationships between i) institutional ownership and dividend payout and ii) CEO duality and dividend payout.

Gill, Biger, and Tibrewala (2010) sampled 266 American firms and found that dividend payout is a function of profit margin, sales growth, and debt-to-equity ratio.

John and Muthusamy (2010) collected data from the Indian paper industry firms and found a negative relationship between i) firm growth and dividend payout, and ii) leverage and dividend payout.

Wen and Jia (2010) sampled 137 American firms for the period 1993 to 2008 and found a negative relationship between institutional ownership and dividend payout.

Bokpin (2011) collected data from Ghana and found a positive relationship between board size and dividend payout, and a negative relationship between financial leverage and dividend payout.

Subramaniam and Susela (2011) sampled Malaysian firms for the period 2004 to 2006 and found that dividend payout is weaker for firms with a larger board size.

Asif, Rasool, and Kamal (2011) used a sample of 403 companies listed on Karachi Stock Exchange for the period 2002 to 2008 and found a negative relationship between financial leverage and divided payout.

Chen, Lin, and Yong-Cheol (2011) used 1056 A-share listed companies in Shanghai and Shenzhen stock market from 2001 to 2007 and found a positive relationship between the size of the board of directors and the propensity of companies to pay cash dividends, and a negative relationship between CEO duality and the propensity to pay cash dividends.

In summary, the literature review shows that the decision to pay dividends is influenced by corporate governance, CEO duality, institutional ownership, firm size, firm growth, firm performance, financial leverage, and the industry in which firms operate.

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, and Institutional Ownership were taken from Kyereboah-Coleman (2007),
 (ii) Sales Growth was taken from Gill, Biger, and Tibrewala (2010),
 (iii) Financial Leverage, Firm Size, and Return on Assets were taken from Gill and Mathur (2011), and
 (iv) The decision to pay dividends was taken from Subramaniam and Susela (2011).
       Table 1 shows the measurements of the dependent, independent, and control variables.

Table 1:   Proxy Variables and their Measurements

Regression Equation: $DP = \alpha \cdot + \cdot \beta_1 CD_{it} + \cdot \beta_2 BS_{it} + \cdot \beta_3 IO_{it} + \cdot \beta_4 MULTI_{it} + \cdot \beta_5 Ind_{it} + \mu_{it}$	
Variables	**Measurement**
The decision to pay the amount of dividends($DP_{i,t}$)	Average dividend per share (2009-2011)
Independent Variables	**Measurement**
CEO Duality ($CD_{i,t}$)	Assigned value one (1) if same person occupied the post of the chairperson and the CEO and zero (0) for otherwise
Board Size ($BS_{i,t}$)	Measured as total number of directors serving on board
Institutional Ownership ($IO_{i,t}$)	Percentage of shares held by institutions (e.g., pension funds)
Control Variables	**Measurement**
Firm Size ($FS_{i,t}$)	Measured as log of total assets
Return on Assets ($ROA_{i,t}$)	Net income / Total assets
Financial Leverage ($FL_{i,t}$)	Total liabilities / Total assets
Firm growth ($FG_{i,t}$)	(Current sales - Previous sales) / Previous sales

Table 1:   Proxy Variables and their Measurements - continued

Dummy Variables	Measurement
Internationalization of Firm (MULTI$_{i,t}$)	Firm was assigned value one (1) if it was a multinational corporation and zero (0) otherwise
Industry Dummy (Control Variable - Ind$_{i,t}$)	Assigned value one (1) for manufacturing industry and zero (0) for service industry

$\mu_{i,t}$= the error term

3.2. Data Collection

A database was built from a selection of approximately 700 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 700 financial-reports announced by public companies between January 1, 2009 and December 31, 2011, only 296 financial reports were usable. Cross sectional yearly data were used in this study. Thus, 296 financial reports resulted in 888 total observations. Since a random sampling method was used to select companies, the sample is considered a representative sample. 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 the dependent, independent, and control variables. The explanation of the descriptive statistics is as follows:

  (i)   Manufacturing Firms: 156; Service firms: 140
  (ii)   DP = $0.62
  (iii)   BS: 10.28
  (iv)   IO: 72%
  (v)   FS = 3.48 million
  (vi)   ROA: 8%
  (vii)   FL:59%
  (viii)   FG: 13%

Table 2:   Descriptive Statistics (2009-2011)

	Minimum	Maximum	Mean	Standard Deviation
DP	0.00	10.91	0.62	0.93
BS	3	18	10.28	2.38
IO	0.00	0.99	0.72	0.23
FS	2.02	5.87	3.48	0.63
ROA	-0.02	0.35	0.08	0.05
FL	0.08	3.87	0.59	0.33
FG	-0.81	2.45	0.13	0.22

DP = The decision to pay the amount of dividends
BS = Board size
IO = Institutional ownership
FS = Firm size
ROA = Return on assets
FL = Financial leverage
FG = Firm growth

3.4. Bivariate Correlation Analysis

Overall, DP is positively correlated with CD and BS, and negatively correlated with IO. In the manufacturing industry, DP is positively correlated with CD, BS, and MULTI, and negatively

correlated with IO. In the service industry, DP is positively correlated with CD and BS, and negatively correlated with IO (see Table 3).

Table 3: Pearson Bivariate Correlation Analysis

Entire Sample (N = 296)						
	DP	**CD**	**BS**	**IO**	**MULTI**	**Ind**
DP	1	0.214**	0.254**	-0.256**	0.048	0.022
CD		1	0.017	-0.004	0.092	0.126*
BS			1	-0.147*	0.024	-0.080
IO				1	0.018	0.083
MULTI					1	0.268**
Ind						1
Manufacturing Industry Sample (N = 156)						
	DP	**CD**	**BS**	**IO**	**MULTI**	
DP	1	0.185*	0.288**	-0.166*	0.186*	
CD		1	0.064	-0.029	0.053	
BS			1	-0.064	0.082	
IO				1	0.080	
MULTI					1	
Service Industry Sample (N = 140)						
	DP	**CD**	**BS**	**IO**	**MULTI**	
DP	1	0.241**	0.247**	-0.308**	-0.016	
CD		1	-0.010	-0.003	0.069	
BS			1	-0.203*	0.026	
IO				1	-0.049	
MULTI					1	

[**]Correlation is significant at the 0.01 level (2-tailed)
[*]Correlation is significant at the 0.05 level (2-tailed)
DP = The decision to pay the amount of dividends
CD = CEO duality
BS = Board size
IO = Institutional ownership
MULTI = Internationalization of firm
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.

4.1. Regression Analysis and Findings

Overall, positive relationships between i) CD and DP, and ii) BS and DP were found (see Table 4); that is, the decision to pay the amount of dividends is a positive function of CD and BS in American firms. A negative relationship between IO and DP was found; that is, the decision to pay the amount of dividends is a negative function of IO in American firms. Non-significant relationships between i) MULTI and DP and ii) Ind and DP were found; that is, MULTI and IND have no impact on the decision to pay the amount of dividends in the American firms.

In the manufacturing industry, positive relationships between i) CD and DP, ii) BS and DP, and iii) MULTI and DP were found (see Table 4); that is, the decision to pay the amount of dividends is a positive function of CD, BS, and MULTI in American manufacturing firms. A negative relationship between IO and DP was found; that is, the decision to pay the amount of dividends is a negative function of IO in American manufacturing firms.

In the service industry, positive relationships between i) CD and DP and ii) BS and DP were found (see Table 4); that is, the decision to pay the amount of dividends is a positive function of CD and BS in American service firms. A negative relationship between IO and DP was found; that is, the decision to pay the amount of dividends is a negative function of IO in American service firms.

Table 4: OLS Regression Estimates on Factors Affecting the Decision to Pay the Amount of Dividends [a, b, c]

Entire Sample (N = 286)
$[R^2 = 0.159;$ Adjusted $R^2 = 0.144;$ SEE = 0.860; F = 10.93; ANOVA's Test Sig. = 0.000]
Regression Equation: DP = 0.140 + 0.378 CD + 0.086 BS - 0.922 IO + 0.049 MULTI + 0.050 Ind

	Unstandardized Coefficients		Standardized Coefficients [c]	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.140	0.313		0.447	0.655		
CD	0.378	0.101	0.204	3.743	0.000	0.980	1.021
BS	0.086	0.021	0.219	4.015	0.000	0.971	1.030
IO	-0.922	0.223	-0.225	-4.124	0.000	0.973	1.028
MULTI	0.049	0.133	0.021	0.369	0.712	0.923	1.084
Ind	0.050	0.105	0.027	0.478	0.633	0.906	1.104

Manufacturing Industry Sample (N = 156)
$[R^2 = 0.160;$ Adjusted $R^2 = 0.137;$ SEE = 0.642; F = 7.17; ANOVA's Test Sig. = 0.000]
Regression Equation: DP = -0213 + 0.217 CD + 0.077 BS -0.564IO +0.408 MULTI

	Unstandardized Coefficients		Standardized Coefficients [c]	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0.213	0.342		-0.624	0.533		
CD	0.217	0.105	0.155	2.076	0.040	0.993	1.007
BS	0.077	0.023	0.253	3.372	0.001	0.985	1.015
IO	-0.564	0.266	-0.159	-2.121	0.036	0.988	1.013
MULTI	0.408	0.181	0.169	2.252	0.026	0.983	1.017

Service Industry Sample (N = 140)
$[R^2 = 0.192;$ Adjusted $R^2 = 0.168;$ SEE = 1.04; F = 8.00; ANOVA's Test Sig. = 0.000]
Regression Equation: DP = 0.322 + 0.561 CD + 0.091 BS - 1.195 IO - 0.128 MULTI

	Unstandardized Coefficients		Standardized Coefficients [c]	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.322	0.527		.610	0.543		
CD	0.561	0.177	0.246	3.170	0.002	0.995	1.005
BS	0.091	0.037	0.196	2.478	0.014	0.958	1.043
IO	-1.195	0.350	-0.270	-3.411	0.001	0.957	1.045
MULTI	-0.128	0.193	-0.052	-0.664	0.508	0.993	1.007

[a] Dependent Variable: DP
[b] Independent Variables: CD, BS, IO, MULTI, and Ind
[c] Linear Regression through the Origin
SEE = Standard Error of the Estimate
DP = The decision to pay the amount of dividends
CD = CEO duality
BS = Board size
IO = Institutional ownership
FS = Firm size
ROA = Return on assets
FL = Financial leverage
FG = Firm growth
MULTI = Internationalization of firm
Ind = Industry

Note that:
- A test for multicollinearity was performed. All variance inflation factor (VIF) coefficients are less than 2 and tolerance coefficients are greater than 0.50 which is an excellent range.
- Overall, Ind, BS, CD, IO, and MULTI explain 15.9% of the variance in DP.
- In the manufacturing industry, MULTI, CD, IO, and BS explain 16% of the variance in DP.
- In the service industry, MULTI, BS, CD, and IO explain 19.2% of the variance in DP.

4.2. Test of Control Variable (Firm Size, FS)

Based on Multiple Regression Analysis, it is concluded that when firm size is held constant:

(i) DP is a positive function of CD (Beta FS*CD = 0.199, Sig. = 0.001), and BS (Beta FS*BS = 0.283, Sig. = 0.000), and a negative function of IO (Beta FS*IO = -0.103, Sig = 0.060) in America.

(ii) DP is a positive function of CD (Beta FS*CD = 0.156, Sig. = 0.040), BS (Beta FS*BS = 0.206, Sig. = 0.027), and MULTI (Beta FS*MULTI = 0.194, Sig. 0.031)in American manufacturing industry.

(iii) DP is a positive function of CD (Beta FS*CD = 0.229, Sig. = 0.006), and BS (Beta FS*BS = 0.261, Sig. = 0.002), and a negative function of IO (Beta FS*IO = -0.163, Sig. = 0.040) in American service industry.

In terms of variance explained when firm size is held constant:

(i) Ind, FS*BS, FS*IO, FS*CD, and FS*MULTI explain 15.1% of the variance in DP of American firms.

(ii) FS*MULTI, FS*IO, FS*CD, and FS*BS explain 20.9% of the variance in DP of American manufacturing firms.

(iii) FS*MULTI, FS*IO, FS*CD, and FS*BS 16.9% of the variance in DP of American service firms.

4.3. Test of Control Variable (Firm Performance, ROA)

Based on multiple regression analysis, it is concluded that when firm performance is held constant:

(i) DP is a positive function of CD (Beta ROA*CD = 0.167, Sig. 0.009) and a negative function of IO (Beta ROA*IO = -0.225, Sig. = 0.002)in America.

(ii) DP is a negative function of IO (Beta ROA*IO = -0.252, Sig. = 0.028) in American manufacturing industry.

(iii) DP is a positive function of CD (Beta ROA*CD = 0.169, Sig. 0.064) and a negative function of IO (Beta ROA*IO = -0.216, Sig. = 0.036) in American service industry.

In terms of variance explained when firm performance is held constant:

(i) Ind, ROA*BS, ROA*CD, ROA*IO, and ROA*MULTI explain 5.9% of the variance in DP of American firms.

(ii) ROA*MULTI, ROA*CD, ROA*BS, and ROA*IO explain 6.9% of the variance in DP of American manufacturing firms.

(iii) ROA*MULTI, ROA*CD, ROA*IO, and ROA*BS 6.2% of the variance in DP of American service firms.

4.4. Test of Control Variable (Financial Leverage, FL)

Based on Multiple Regression Analysis, it is concluded that when financial leverage is held constant:

(i) DP is a positive function of CD (Beta FL*CD = 0.218, Sig. = 0.000), and BS (Beta FL*BS = 0.294, Sig. = 0.000), and a negative function of IO (Beta FL*IO = -0.307, Sig. = 0.000) in America.

(ii) DP is a positive function of CD (Beta FL*CD = 0.246, Sig. = 0.001), and MULTI (Beta FL*MULTI = 0.302, Sig. = 0.016), and a negative function of IO (Beta FL*IO = 0.302, Sig. 0.036) in American manufacturing industry.

(iii) DP is a positive function of CD (Beta FL*CD = 0.186, Sig. = 0.027), and BS (Beta FL*BS = 0.279, Sig. = 0.020), and ii) a negative function of IO (Beta FL*IO = -0.332, Sig. = 0.004) in American service industry.

In terms of variance explained when financial leverage is held constant:

(i) Ind, FL*MULTI, FL*CD, FL*IO, and FL*BS explain 12.2% of the variance in DP of American firms.

(ii) FL*MULTI, FL*CD, FL*IO, and FL*BS explain 21.9% of the variance in DP of American manufacturing firms.

(iii) FL*MULTI, FL*CD, FL*IO, and FL*BS 11.3% of the variance in DP of American service firms.

4.5. Test of Control Variable (Firm Growth, FG)

Based on Multiple Regression Analysis, it is concluded that when firm growth is held constant:
  (i) DP is a negative function of IO (Beta FG*IO = -0.263, Sig. = 0.049) in America (entire sample).
 (ii) DP is a negative function of IO (Beta FG*IO = -0.294, Sig. = 0.082) in American manufacturing industry.
    In terms of variance explained when firm growth is held constant:
    (i) Ind, FG*BS, FG*CD, FG*MULTI, and FG*IO explain 2.8% of the variance in DP of American firms (entire sample).
    (ii) FG*MULTI, FG*IO, FG*CD, and FG*BS explain 2.4% of the variance in DP of American manufacturing firms.

4.6. Discussion and Conclusion

The purpose of this study was to find the impact of corporate governance and institutional ownership on the decision to pay dividends. Overall, findings show that the decision to pay dividends is a positive function of CEO duality and board size, and a negative function of institutional ownership. The impact of corporate governance and institutional ownership differ between manufacturing and service industries.

Results show that the decision to pay dividends is a positive function of CEO duality, board size, and internationalization of the firm, and a negative function of institutional ownership inthe American manufacturing industry.

Findings also show that the decision to pay dividends is a positive function of CEO duality and board size, and a negative function of institutional ownership in the American service industry.

Findings show that when firm size is held constant:
    (i) The decision to pay dividends is a positive function of CEO duality and board size, and a negative function of institutional ownership in America (entire sample).
    (ii) The decision to pay dividends is a positive function of CEO duality, board size, and internationalization of firm in the American manufacturing industry.
    (iii) The decision to pay dividends is a positive function of CEO duality and board size, and a negative function of institutional ownership in the American service industry.

Results show that when firm performance is held constant:
    (i) The decision to pay dividends is a negative function of institutional ownership in America.
    (ii) The decision to pay the amount of dividends is a negative function of institutional ownership in the American manufacturing industry.
    (iii) The decision to pay dividends is a positive function of CEO duality and a negative function of institutional ownership in the American service industry.

Findings also show that when financial leverage is held constant:
    (i) The decision to pay dividends is a positive function of CEO duality and board size, and a negative function of institutional ownership in America.
    (ii) The decision to pay dividends is a positive function of CEO duality and internationalization of the firm and a negative function of institutional ownership in the American manufacturing industry.
    (iii) The decision to pay dividends is a positive function of CEO duality, board size, and ii) a negative function of institutional ownership in the American service industry.

The results also show that when firm growth is held constant:

      (i) The decision to pay dividends is a negative function of institutional ownership in America.

      (ii) The decision to pay dividends is a negative function of institutional ownership in the American manufacturing industry.

      In conclusion, CEO duality and board size positively impact the decision to pay dividends and institutional ownership negatively impacts the decision to pay dividends.

      The findings of this study lend some support to the findings of Baker *et al.* (1985), Pruitt and Gitman (1991), Collins *et al.* (1996), Maury and Pajuste (2002), Amidu and Abor (2006), Anil and Kapoor (2008), Renneboog and Trojanowski (2008), Ali-Shah (2009), Gill, Biger, and Tibrewala (2010), John and Muthusamy (2010), Wen and Jia (2010), Bokpin (2011), Subramaniam and Susela (2011), Asif, Rasool, and Kamal (2011), and Chen, Lin, and Yong-Cheol (2011). Table 5 shows the summary of the findings of previous authors related to the impact of corporate governance and institutional ownership on dividend payout.

Table 5: Previous Findings on the Impact of Corporate Governance and Institutional Ownership on Dividend Payout

Author	Findings	Country/ Markets
Baker *et al.* (1985)	• Found that the anticipated level of future earnings is the determinant of dividend payment.	USA
Pruitt and Gitman (1991)	• Found that current and past years' profits are important factors in influencing dividend payments.	USA
Collins *et al.* (1996)	• Found a negative relationship between i) historical sales growth and dividend payout and ii) firm's risk and the dividend payout.	USA
Baker and Powell (2000)	• Found that dividend determinants are industry specific.	USA
Maury and Pajuste (2002)	• Found that the separation of ownership and control through high-voting shares and pyramid control structures does not have a significant impact on dividend policy. The authors concluded that firm's control structure affects i) the dividend payout policy and ii) dominant shareholders in control may collude in generating private benefits of control that are not shared with minority shareholders. Thus, high institutional ownership (i.e., high percentage shareholding by institutions such as mutual fund companies, pension funds, and/ or endowments) has negative impact on dividend payout decision.	Finland
Amidu and Abor (2006)	• Found a positive relationship between corporate profitability and dividend payout ratios, and a negative relationship historical sales growth and dividend payout.	Ghana
Anil and Kapoor (2008)	• Found that profitability has been considered as a primary indicator of dividend payout ratio.	India
Renneboog and Trojanowski (2008)	• Found that profitability is a crucial determinant of payout decisions, but the presence of strong block holders or block holder coalitions weakens the relationship between the corporate earnings and the payout dynamics. Block holders appear to realize that an overly generous payout may render the company liquidity constrained, and consequently, result in suboptimal investment policy.	UK
Ali-Shah (2009)	• Found positive relationships between i) institutional ownership and dividend payout and ii) CEO duality with dividend payout.	Pakistan
Gill, Biger, and Tibrewala (2010)	• Found that the dividend payout is the function of profit margin, sales growth, and debt-to-equity ratio.	USA
John and Muthusamy (2010)	• Found a negative relationship between i) firm growth and dividend payout, and ii) leverage and dividend payout.	India
Wen and Jia (2010)	• Found a negative relationship between institutional ownership and dividend payout.	USA
Bokpin (2011)	• Found a positive relationship between board size and dividend payout, and a negative relationship between financial leverage and dividend payout.	Ghana
Subramaniam and Susela (2011)	• Found that dividend payout is weaker for firms with a larger board size.	Malaysia

Table 5:   Previous Findings on the Impact of Corporate Governance and Institutional Ownership on Dividend
             Payout - continued

Asif, Rasool, and Kamal (2011)	• Found a negative relationship between financial leverage and divided payout.	Pakistan
Chen, Lin, and Yong-Cheol (2011)	• Found a positive relationship between the size of the board of directors and the propensity of companies to pay cash dividends, and a negative relationship between CEO duality and the propensity to pay cash dividends.	China

4.7. 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.

4.8. Future Research

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

References

[1]   Alli, K., A. Khan, and G. Ramirez (1993). "Determinants of dividend policy: a factorial analysis", The Financial Review, 28(4), pp. 523-47.
[2]   Ali-Shah, S.Z. (2009). "Corporate governance and financial performance: A comparative study of developing and developed markets", PhD Thesis.Retrieved June 10, 2012 from http://eprints.hec.gov.pk/6291/
[3]   Amidu, M. and J. Abor (2006). "Determinants of dividend payout ratios in Ghana", Journal of Risk Finance, 7(2), pp. 136-145.
[4]   Anil, K. and S. Kapoor (2008). "Determinants of dividend payout ratios - a study of Indian information technology sector", International Research Journal of Finance and Economics, 15, pp. 1-9.
[5]   Asif, A., W. Rasool, and Y. Kamal (2011). "Impact of financial leverage on dividend policy: Empirical evidence from Karachi Stock Exchange-listed companies", African Journal of Business Management 5(4), pp. 1312-1324.
[6]   Baker, H.K., G.E. Farrelly, and R.B. Edelman (1985). "A survey of management views on dividend policy", Financial Management, 14(3), pp. 1007-1034.
[7]   Black, F. (1976). "The dividend puzzle", Journal of Portfolio Management, pp. 5-8.
[8]   Bokpin, G.A. (2011). "Ownership structure, corporate governance and dividend performance on the Ghana Stock Exchange", Journal of Applied Accounting Research, 12(1), pp. 61 - 73.
[9]   Brook, Y., W. Chalton, and R. Hendershott (1998). "Do firms use dividends to signal large future cash flow increase?", Financial Management, pp. 46-57.
[10]   Chen, L., C. Lin, and K. Yong-Cheol (2011). "Financial characteristics, corporate governance and the propensity to pay cash dividends of Chinese listed companies", International Business and Management, 3(1), pp. 176-188.
[11]   Collins, M.C., A.K. Saxena, and J.W. Wansley (1996). "The role of insiders and dividend policy: a comparison of regulated and unregulated firms", Journal of Financial and Strategic Decisions, 9(2), pp. 1-9.
[12]   D'Souza, J. (1999). "Agency cost, market risk, investment opportunities and dividend policy an international perspective", Managerial Finance, 25(6), pp. 35-43.
[13]   Gill, A., N. Biger, andR. Tibrewala (2010). "Determinants of dividend payout ratios: evidence from United States", The Open Business Journal, 3, pp. 8-14.

[14]   Gill, A. and N. Mathur, 2011. "Factors that influence financial leverage of Canadian firms", Journal of Applied Finance and Banking, 1(2), pp. 19-37.

[15]   Gordon, M.J. (1963). "Optimal Investment and Financing Policy", Journal of Finance, 18(2), pp. 264-72.

[16]   Higgins, R.C. (1972). "The corporate dividend-saving decision", Journal of Financial and Quantitative Analysis, 7(2), pp. 1527-1541.

[17]   Jensen, M. C. (1986). "Agency costs of free cash flow, corporate finance, and takeovers," American Economic Review, 76, pp. 323-329.

[18]   Jensen, G.R., D.P. Solberg, and T.S. Zorn (1992). "Simultaneous determination of insider ownership, debt, and dividend policies", Journal of Financial and Quantitative Analysis, 27, pp. 247-63.

[19]   John, S.F. and K. Muthusamy (2010). "Leverage, growth and profitability as determinants of dividend payout ratio: Evidence from Indian Paper Industry"' Asian Journal of Business Management Studies, 1(1), pp. 26-30.

[20]   Kent, B.H. and G.E. Powell (2000). "Determinants of corporate dividend policy: a survey of NYSE firms", Financial Practice and education, 9, pp. 29-40.

[21]   Kyereboah-Coleman, A., 2007. "Corporate governance and firm performance in Africa: A dynamic panel data analysis", International Conference on Corporate Governance in Emerging Markets, Sabanci University, Istanbul, Turkey.Retrieved June 10, 2012 from http://www.ifc.org/ifcext/cgf.nsf/AttachmentsByTitle/PS2.3/$FILE/Kyereboah-Coleman+-+Corporate+Governance.pdf

[22]   Linter, J. (1956). "Distribution of incomes of corporations among dividends, retained earnings and taxes", American Economic Review, 46, pp. 97-113.

[23]   Lloyd, W.P., S.J. Jahera, D.E. and Page (1985). "Agency cost and dividend payout ratios", Quarterly Journal of Business and Economics, 24(3), pp. 19-29.

[24]   Maury, B. and A. Pajuste (2002). "Controlling Shareholders, Agency Problems and Dividend Policy in Finland", Finnish Journal of Business Economics,51, pp. 15-45. Retrieved June 12, 2012 from http://lta.hse.fi/2002/1/lta_2002_01_a1.pdf

[25]   Michael, N.B. (2011). "Dividend payouts and shareholders' satisfaction in quoted firms in Nigeria", European Journal of Social Sciences, 22(4), pp. 541-549.

[26]   Miller, M.H. and F. Modigliani (1961). "Dividend policy, growth and the valuation of shares", Journal of Business, 34(4), pp. 411–433.

[27]   Myers, S.C. (1984). "The capital structure puzzle",*Journal of Finance*, 39, pp. 575-92.

[28]   Pruitt, S.W. and L.W. Gitman (1991). "The interactions between the investment, financing, and dividend decisions of major US firms", Financial Review, 26(33), pp. 409-430.

[29]   Renneboog, L. and G. Trojanowski (2008). "Control structures and payout policy", Managerial Finance, 33(1), pp. 43-64.

[30]   Subramaniam, R. and D.S. Susela, D.S. (2011). "Corporate governance and dividend policy in Malaysia", 2010 International Conference on Business and Economics Research, 1, IACSIT Press, Kuala Lumpur, Malaysia, pp. 200-207.

[31]   Rozeff, S.M. (1982). "Growth, beta and agency cost as determinants of dividend payout ratios", Journal of Financial Research, 5, pp. 411-433.

[32]   Wen, Y. and J. Jia (2010). "Institutional ownership, managerial ownership and dividend policy in bank holding companies", International Review of Accounting, Banking, and Finance, 2(1), pp. 8-21.