Article can be accessed online at http://www.publishingindia.com

WORKING CAPITAL MANAGEMENT IMPACT ON CORPORATE PROFITABILITY RELATION WITH CORPORATE GOVERNANCE: EVIDENCE FROM INDIAN MANUFACTURING SECTOR

Karam Pal Narwal*, Sonia Jindal**

Abstract *The present study shows that the impact of corporate governance and working capital management on the corporate profitability of Indian manufacturing companies. A sample of 50 manufacturing companies for a period of 6 year has been examined (from 2010-11 to 2015-16). The corporate governance has been measured by CEO duality, board committee, board size, non executive directors, board meeting, audit committee members and directors remuneration. The working capital management has been measured by inventory, accounts receivable period, accounts payable period and cash holding. The profitability has been measured by the profit after tax. The correlation matrix and regression model has been used in study for analysis purpose. The finding of study shows that the corporate governance and working capital management may be helpful in improvement of corporate profitability. The findings of study may be helpful for managers, investors and stakeholders.*

Keywords: *Corporate Governance, Working Capital, Profitability, Board Size, Director's Remuneration*

INTRODUCTION

Working capital management defines as the management of the short term capital in the business. The objective of the working capital management is to manage the liquidity, shareholder value and the profitability in the business. The efficient working capital should be hold in business which can be helpful in the maximum return in assets and minimization to liabilities (Makori & Jagongo, 2013).

Working capital means that the capital which is necessary for day to day operation. Corporate governance defines as the system by which companies controlled and monitored. This helps in achievement of objectives of the firm. Good corporate governance helps in maintaining the economic stability, reduce the transaction cost and reduce the cost of capital in the business. Good corporate governance is also helps in enhancing the firm performance (Latif *et al*, 2013). Strong and stable corporate governance practices attract the investors and also protect the shareholder rights. Good corporate governance is not only helps in enhancing the profitability but also enhance the firm performance of the companies (Gupta & Newalkar, 2015).

The present study shows that the impact of corporate governance and working capital on the profitability. The study has used the panel data of fifty manufacturing companies which are listed NSE (national stock exchange).

REVIEW OF LITERATURE

Narwal and Jindal (2015) examined that the relationship between the corporate governance and profitability. The study resulted that director's remuneration and audit committee members were significantly associated with the profitability. Gupta & Newalkar (2015) showed that the association between the corporate governance and profitability by taking the sample of 30 companies which are listed in NSE (national stock exchange) from the period of 2010-11 to 2014-15 respectively. The study found that the corporate governance is positively associated with the return on equity. Babatunde & Akeju (2015) investigated the association between the corporate governance and firm profitability. The study was by taking the sample of 60 companies which was listed in Nigeria Stock Exchange. The study found that corporate governance is positively and significant associated with the profitability.

Garg & Gumbochuma (2015) examined the association between the working capital management and profitability.

* Professor, Haryana School of Business, Guru Jambheshwar University of Science & Technology, Hisar, Haryana, India. Email: karampalhsb@gmail.com

** Corresponding Author, Junior Research Fellow, Haryana School of Business, Guru Jambheshwar University of Science & Technology, Hisar, Haryana, India. Email: soniajindalbpc@gmail.com

The study showed that there was negatively relationship between the working management and the profitability. Narwal and Jindal studied (2017) on the corporate governance and cash conversion by taking the sample of Indian manufacturing companies. The study found that board size and non-executive directors was significantly associated with the cash conversion cycle. Emmanuel and Hodo (2012) investigated the relationship between the corporate governance and banking performance. The study revealed that board size was positively associated with the return on equity and return on assets.

OBJECTIVES AND HYPOTHESIS

There are few studies founds in the literature which shows that the impact working capital management on the profitability relation with the corporate governance. Thus, the paper aims to find out impact of working capital and corporate governance on the profitability. For above mention objectives following hypothesis has been develop.

H_{01}: There is significantly association between the corporate governance and profitability.

H_{02}: There is significantly association between the working capital and profitability.

DATA AND VARIABLES

Data and Sample Selection

The data has been collected from the prowess database which is maintained by CMIE (Centre of Monitoring India Economy). The data has been collected of fifty manufacturing companies which are listed in NSE (National Stock Exchange). The data of top fifty manufacturing companies is collected on the basis of market capitalization. The data has been taken from the period of ranging 2010-11 to 2015-16. The corporate governance and working capital has been taken as independent variables. The profitability has been taken as dependent variables. The size is used as control variable.

DEPENDENT VARIABLES

The profitability is used as dependent variable. The profitability is measured by profit after tax. The profitability defines as the net income of the company after deducting all expenses.

INDEPENDENT VARIABLES

In the present study corporate governance and working capital has been used as independent variables. The corporate governance is measures by board size, non executive directors, board meetings, Audit committee members and directors remuneration.

Board Size (BSIZE): The total numbers of directors in the board is called board size.

Non Executive Directors (NED): It is also the part of board size but they do not involve in day to day work. They involves in the planning the policy.

Board Meeting (BMEETING): The total numbers of board directors meets in the year is called board meeting.

Audit Committee Members (ACM): The members of audit committee responsibility for see the financial reporting system.

Directors Remuneration (DR): The compensation receives by the directors to their service is called directors remuneration.

CONTROL VARIABLES

The SIZE is taking as control variable which is measures by the log of average assets.

MODEL AND ANALYSIS

Two regression equations have been developed for find out the relationship between the corporate governance, working capital and profitability.

$$PAT = \alpha_{it} + \beta_1 BSIZE_{it} + \beta_2 NED_{it} + \beta_3 BM_{it} + \beta_4 ACM_{it} + \beta_5 DR_{it} + \beta_6 SIZE_{it} + \varepsilon_{it} \quad (1)$$

$$PAT = \alpha_{it} + \beta_1 WC + \beta_2 SIZE_{it} + \varepsilon_{it} \quad (2)$$

Where, αit= constant term; NED=non executive directors; BSIZE= board size; BM= board meetings; ACM= audit committee members; DR= directors remuneration; PAT= Profitability; SIZE = log of average sales; εit= error term.

DATA ANALYSIS

Descriptive Statistics

Table 1 describes the descriptive statistics of the study which presents that the mean, median, maximum, minimum, standard deviation, skewness and kurtosis. Table 1 presents that the total numbers of observation is 298. The average value of board size indicates that the more than 11 directors in the board. The average value of non executive directors shows that there are more than 8 directors in the boards. Thus, the data of the manufacturing companies presents that more than fifty percent directors are non-executive directors in board. The average value of audit committee members

(ACM) shows that the more than 4 directors includes in the audit committee and the minimum members of the audit committee is more than 4 directors. According to the Indian board (clause 49) explained that at least three directors includes in the audit committee. The average value of the board meeting is more than six. According to the Indian board (clause 49) presents that the board of directors meets at least five times in the year. The value of standard deviation shows that there are more variation in PAT (profitability) and working capital.

Table 1: Descriptive Statistics

	PAT	WC	BSIZE	NED	BMEETING	ACM	DR
Mean	19690.34	37770.47	11.034	8.121	6.181	4.218	18.076
Median	8858.3	13148.8	11	8	6	4	12.85
Maximum	273840	677140	19	14	13	7	138.97
Minimum	-51028.2	-313250	5	3	3	3	0
Std. Dev.	36568.98	92788.71	2.641	2.412	1.926	1.068	19.638
Skewness	3.894	3.138	0.143	0.03	1.106	0.87	2.999
Kurtosis	21.997	18.962	2.968	2.446	4.065	3.16	15.501
Observation	298	298	298	298	298	298	298

CORRELATION MATRIX

Table 2 indicates the relationship between the dependent, independent and control variables. Table 2 finds that there does not existing multicollinearity problem among the dependent and independent variables. If the relationship between the dependent and independent variables is more 0.8 than multicollinearity problem occur (Kennedy, 1985). The correlation matrix shows that the working capital, board size, board meeting and directors remuneration is positively and significantly associated with the profitability (at 1% level of significance). It means that if increasing the board size, board meeting and directors remuneration is than increasing the profitability of the companies. Working capital is also positively and significantly associated with the profitability. But the audit committee members are negatively associated with the profitability. Board size and board meeting is positively and significantly associated with the working capital. It implies that if larger board size and increasing the board meetings is than enhancing the working capital. The control variable (SIZE) is positively and significantly associated with the profitability and working capital (at 1% level of significance).

Table 2: Correlation Matrix

	PAT	WC	BSIZE	NED	BMEETING	ACM	DR
PATT	1						
WC	0.577*	1					
BSIZE	0.244*	0.163*	1				
NED	0.048	-0.068	0.747*	1			
BMEETING	0.178*	0.143**	0.234*	0.061	1		
ACM	-0.112***	-0.090	0.142**	0.305*	-0.044	1	
DR	0.239*	0.028	0.197*	0.120**	-0.094	-0.154*	1
SIZE	0.590*	0.442*	0.367*	0.060	0.471*	-0.184*	0.174*

Note: *,** and *** represents Significance at 1 percent, 5 percent and 10 percent respectively.

OLS REGRESSION MODEL

Regression on the Working Capital and Profitability

The data consists both characteristics time series data and cross data so that the data is panel in nature. That is why OLS (ordinary least square) regression model has been applied for analysis purpose. Table 3 shows that the total numbers of observation (N) is 299. Table 3 represents that the adjusted R^2 is 0.469 and it implies that the working capital explain the profitability more than 46 percent.

Working capital (WC) is positively and significantly associated with the profitability (at 1% level of significance). Thus, the hypothesis (H_{02}) is accepted. Table 3 indicates that the coefficient value of working capital is 0.155 which implies that the more than 15 % variance of profitability can explain by the working capital. The control variable SIZE is also positively and significantly associated with the profitability (at 1 % level of significance).

Table 3: Regression on the Working Capital and Profitability

Variable	Coefficient	t-Statistic	Prob.
C	-93865.9	-7.852	*
WC	0.155	8.340	*
SIZE	26574.88	8.863	*
Adjusted R-squared	0.469		
F-statistic	132.5718		
Prob. (F-statistic)	0		
N	299		

Note: *,** and *** represents Significance at 1 percent, 5 percent and 10 percent respectively.

Regression on the Corporate Governance and Profitability

Table 4 analysis that the relationship between the corporate governance and profitability. Table 4 indicates that the total observation (N) is 298. Table 4 shows that the value of adjusted R^2 is 0.363 it means that the variance of profitability is explained by corporate governance more than 36 percent. The director remuneration (DR) is positively and significantly associated with the profitability (at 5% level of significance). It means that if increasing the remuneration of directors is than enhancing the profitability of the companies. Board size (BSIZE) and audit committee members (ACM) is also positively associated with the profitability but at insignificant level. Board meeting (BMEETING) and non executive directors (NED) is negatively associated with the profitability. Thus, the hypothesis (H_{01}) is partially.

Table 4: Regression on the Corporate Governance and Profitability

Variable	Coefficient	Standardized Coefficient	t-Statistic	Prob.
C	-133960		-8.745	*
BSIZE	640.222	0.046	0.575	
NED	-562.433	-0.037	-0.485	
BMEETING	-1962.806	-0.103	-1.917	***
ACM	628.006	0.018	0.363	
DR	228.093	0.122	2.482	**
SIZE	38623.940	0.606	10.211	*
Adjusted R-squared	0.363			
F-statistic	29.22233			
Prob. (F-statistic)	0			
N	298			

Note: *,** and *** represents Significance at 1 percent, 5 percent and 10 percent respectively.

CONCLUSION AND DISCUSSION

The corporate governance system comes in India before many times. But the corporate governance concept is more important in the present time. The more competition occurs in market so that to meet competition in the market corporate governance is important concept for organization.

The study finds the impact of working capital and corporate governance on the profitability by taking the sample of 50 manufacturing companies in India. The study finds that the working capital explains the profitability more than 46 percent and corporate governance explain the profitability more than 36 percent. Thus, the study shows that both the independent variables (working capital and corporate governance) have good explanatory power for presenting the profitability. Director's remuneration plays a significant role in enhancing the profitability. Larger board size and audit committee members are also positively associated with the profitability. Working capital is also positively and significantly associated with the profitability.

Hypothesis (H_{01}) is partially accepted and hypothesis (H_{02}) is accepted. This study is similar to the findings of previous studies (Aggarwal, 2013; Narwal and Jindal , 2015; Makori & Jagongo, 2013). It is observed that the corporate governance and working capital management can help improvement in the profitability.

Future Research Directions and Policy Implications: The study shows the impact of corporate governance and working capital on the profitability. The study is taking only two independent variables (corporate governance and working capital) but there are many other components which can have effect on the profitability. Thus, the future study may be done for taking other independent variables. The study is done by taking the sample of India manufacturing companies only. The future study may be done by taking the sample of other sectors. The study is taking only one dependent variable (Profitability). The future study may be done by using the other dependent variables.

The study is useful for the managers, policy maker, investors and stakeholder. The study can be beneficiary researcher for future director area.

REFERENCES

Aggarwal, P. (2013) Corporate governance and corporate profitability: Are they Related? A study in Indian context. *International Journal of Scientific and Research Publications, 3*(12), 1-8.

Babatunde, A. A., & Akeju, J. B. (2015). The impact of corporate governance on firm's profitability in Nigeria. *International Journal of Business and Management Invention, 5*(8), 69-72.

Emmanuel, S. A., & Hodo, B. R. (2012) Does corporate governance affect bank profitability? Evidence from Nigeria. *American International Journal of Contemporary Research*, *2,* 135-145.

Garg, A. K., & Gumbochuma, I. (2015). Relationship between working capital management and profitability in JSE listed retail sector companies. *Investment Management and Financial Innovations, 12*(2), 127-135.

Gupta, M., & Newalkar, G. (2015) Impact of Corporate Governance on the Profitability of a Firm: Empirical Study on National Stock Exchange. *2nd International Conference on Science, Technology and Management*, 572- 578.

Indian Board. (2017). Audit Committee. Retrieved from http://www.indianboards.com/files/clause_49.pdf (assessed on 10/12/2017).

Indian Board. (2017). Board of Directors. Retrieved from http://www.indianboards.com/files/clause_49.pdf (assessed on 10/12/ 2017).

Indian Board. (2017). Non Executive Directors. Retrieved from http://www.indianboards.com/files/clause_49.pdf (assessed on 10/12/ 2017).

Kennedy, P. (1985). *A guide to econometrics* (2nd ed.). Cambridge, MA: MIT Press.

Latif, B., Shahid, M. N., Haq, M. Z. U, Waqas, H. M., & Arahad, A. (2013). Impact of corporate governance on firm performance: Evidence from sugar mills of Pakistan. *European Journal of Business and Management***,** *5*(1).

Makori, D. M., & Jagongo, A. (2013) Working capital management and firm profitability: Empirical evidence from manufacturing and construction firms listed on Nairobi securities exchange, Kenya. *International Journal of Accounting and Taxation, 1*(1), 1-14.

Narwal, K. P., & Jindal, S. (2017) Corporate governance mechanism and its impact on cash conversion cycle: Evidence from Indian manufacturing sector. *Asian Journal of Research in Banking and Finance, 7*(10), 35-45.

Narwal, K. P., & Jindal, S. (2015). The impact of corporate governance on the profitability: An empirical study of Indian textile industry. *International Journal of Research in Management, Science & Technology, 3*(2), 81-85.