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THE IMPACT OF CORPORATE GOVERNANCE ON THE CURRENT ASSETS MANAGEMENT OF THE COMPANIES LISTED IN TEHRAN STOCK EXCHANGE

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ABSTRACT

It is important to improve the shareholder trust and satisfaction in developing and expanding the capital market. Currently, it is the manager's obligation to manage the company successfully. In this respect, working capital management is one of the most important parts of corporate management structure. The optimization of working capital can be helpful in minimizing the requirements of working capital so much that it decreases free cash flows of company. The mechanisms of corporate governance influence quantity and quality of working capital management. This is why that the present study aimed to analyze the effect of corporate governance mechanisms on the ratio of efficiency (payable accounts, receivable accounts, and total assets turnover) and trust fund. What is new in this study is the simultaneous investigation of the three mechanisms of corporate governance on the current assets management. For this purpose, a sample of 70 companies was selected from the companies listed in Tehran Stock Exchange from 2008 to 2012. In order to test the hypotheses, multi-variable regression models were employed with combinative data. The findings revealed that there are significant relationships among research variables.

Keywords: *Corporate Governance, Current Assets Management, Board of Directors, Duality of Director Function*

INTRODUCTION

The working capital management is one of the most important parts which play an important role in the managerial structure of corporate so that the working capital and liquidity are known as blood in the company body and its vessels. Indeed, it plays an important role in the survival of any business (Setayesh *et al.*, 2009). The supervisory mechanisms of corporate governance are considered as the most important effective factors in the working capital management. The results of previous studies revealed that the improvement in the quality of corporate governance leads to less maintenance effect of liquidity in the companies (Rasaeian *et al.*, 2010). The policy of inefficient working capital management derives from poor corporate governance which influences shareholders' capital negatively. Indeed, the effective corporate governance plays an as an investigation of company resources management (Gill and Bigger, 2013).

Although receivable accounts, assets, and payable accounts are important parts of working capital management, cash is one of the most vulnerable ones in this area (Isshaq *et al.*, 2009). In the majority of cases, higher levels of cash flow do not refer to the company strength, but it may be due to the poor capabilities of corporate governance. In this respect, working capital management is one of the most important problems facing the companies. Indeed, appropriate working capital management leads to better shareholder capital. In the components of trading capital, liquidity is often seen in cash and refers to the company ability in payable accounts. Although cash is important for paying debates, it should be noted that cash has not any income for company. However, companies need to construct cash flow by which they can pay their debts timely (Gil and Bigger, 2013). Therefore, maintaining an appropriate level of cash flow is necessary by which the company will be able to survive (Gill and Shah, 2012). Many authors believe that development in the production capability requires increase in the cash flow, assets, and receivable accounts (Michalaski, 2008). Even though the relatives and family members may help the company in terms of cash flow in some cases, maintenance of higher levels of cash flows results in bad

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conditions for company. Also delay in paying debts damages the company because of penalty and so on. The organization of working capital is not attended by organizations. The reason is that it influences shareholders' capital negatively. Therefore, the policy of working capital management is necessary for companies (Gil and Bigger, 2013).

Corporate governance plays an important role in controlling working capital management through developing appropriate policies. In this respect, duality of director function, size of board of directors, and auditing committee should not be ignored in working capital management (Gil and Bigger, 2013). The duality of director function and size of board of directors are two important factors which maintain an appropriate level of working capital in the company (Gil and Shah, 2012). The period in which the directors are in charge is another factor which can be effective in the improvement of working capital management (Gil and Bigger, 2013). Duality of director function encourages directors to serve in the organization for management team. Maintaining higher levels of liquidity is one of the main methods by which a company can preserve its position (Dahya and Travlos, 2000). In addition, director and board of directors develop policies such as policies of working capital management (Gil and Bigger, 2013). A small board of directors influences decisions strongly than a large board of directors (Yermach, 1996), (Lipton and Lorsch, 1992).

Efficient working capital management is necessary for most companies. The components of working capital include receivable accounts, store, payable accounts, efficient use of money in daily operations, and the optimization of working capital balance. These are the factors which help a company in minimizing the requirements of working capital which in result increases the company free cash flow. On the other hand, inefficient working capital management derives from poor corporate governance which influences shareholder capital negatively (Issaq *et al.*, 2009). It can be said that strength working capital management is very necessary for constructing and maintaining the most appropriate cash flow policies in the company (Gil and Bigger, 2013). The results of this study can be helpful in improving the current assets management. Also, the relationship between the characteristics of corporate governance and current assets management can be helpful for financial managers, investors, counselors of directors, and other stakeholders.

Corporate governance plays an important role in controlling working the capital management through developing appropriate policies (Gil and Bigger, 2013). If a company has good corporate governance, it will not maintain higher levels of cash flow. In addition, corporate governance improves the company value through better utilization of cash flow (Ditmar and Smith, 2007). Although corporate governance rarely influences the formation of company cash flow, it influences company behavior in consuming financials significantly (Ditmar and Smith, 2007). Gil and Bigger (2013) indicate that the duality of director function influences efficiency of working capital management positively, but Gil and Matour (2011) show that size of the board of directors and the duality of directorial function are the main factors which have significant effect in the company profitability resulting in the maximization of the shareholder capital. The theory of Erdogan *et al.*, (2013) is compatible with the adaptability theory. They believe that the duality of director function influences the company performance negatively. In addition, Robinson suggests that the board of directors should not be very large and comprehensive. The reason is that the large board of directors is not appropriate for the productive companies, as it does not influence the efficiency of working capital management (Gil and Bigger, 2013). Indeed, the duality of directorial function has significant relationship with the maintenance of higher levels of cash flow (Drobetz and Gruninger, 2006). The companies, in which the director serves in the board, maintain a large part of cash (Drobetz and Gruninger, 2006). In addition, the period of the director serving the firm, the company size, and financial performance of company improve the cash flow management (Gil and Bigger, 2013). Some of previous studies are indicated in the following section.

Literature Review

With respect to comprehensiveness of the study, some of the past related studies are indicated in the following section in terms of trading capital, working capital management, and corporate governance mechanisms.

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Gil and Bigger (2013) in their study “the effect of corporate governance on the efficiency of working capital management in the American productive companies” investigate the effect of corporate governance on the efficiency of working capital management. They found that corporate governance plays an important role in the improvement of the efficiency of working capital management.

Dehaghani (2013) in his study “the effect of corporate governance on the efficiency of working capital management” investigates the effect of corporate governance on the efficiency of the working capital management. He found that corporate governance influences time period of receivable accounts, time period of inventory maintenance, time period of payable accounts, and current ratio.

Rasaeian *et al.*, (2010) in their study “the effect of organizational supervisory mechanisms of corporate governance on the maintenance levels of cash in the companies listed in Tehran Stock Exchange” investigate the effect of organizational supervisory mechanisms of corporate governance on the maintenance levels of cash in the companies listed in Tehran Stock Exchange. They found that there is a significant relationship between ratios of non-obligated members of board of directors and maintenance level of cash.

Dittmar and Smith (2007) in their study “corporate governance and the value of cash assets” conclude that the companies with powerful corporate governance capability maintain lower levels of cash. Also they found that corporate governance improves the company value through better utilization of cash flows. On the other hand, the companies with poor corporate governance are not able to manage their cash.

Kuan *et al.*, (2011) investigate the relationship between corporate governance and company policies of cash flows in the family business.

They found that there is a significant relationship between corporate governance and differentiation of control rights. They also found that there is a significant relationship between family businesses and non-family businesses in this respect. Another part of their findings showed that the separate quality of the agent and owner rights and the duality of function and policy influence different levels of cash maintenance in the company.

Modum *et al.*, (2013) in their study “analyzing the effect of size, combination, and frequency of sessions and order in respecting session affairs on the financial efficiency of companies listed in Nigeria stock exchange. They found that there is a significant relationship between the size of the board of directors and the maximization of shareholder capital.

Rasaeian *et al.*, (2010) in their study “the effect of organizational supervisory mechanisms of corporate governance on the maintenance levels of cash in the companies listed in Tehran Stock Exchange” investigate the effect of organizational supervisory mechanisms of corporate governance on the maintenance levels of cash in the companies listed in Tehran Stock Exchange. They found that there is a significant relationship between ratios of non-obligated members of board of directors and maintenance level of cash.

Salehi and Rahravi (2011) in their study “the effect of working capital management on the level of cash maintenance” investigate the motivation within the company in maintaining cash. They found that utilization of internal cash is an important decision in terms of the conflict between shareholders and managers. In this respect, working capital management and its components play an important role in the maintained cash flow management in the company. Indeed, managers can increase their receivable accounts and increase their profitability through appropriate capital management.

Hypotheses Development

In order to achieve the purpose of this study, the main question of this study should be answered. The question indicates that “is corporate governance affects efficiency of current assets management?” In order to achieve the purpose of this study and answer the question, the following hypotheses were developed based on the study of Gil and Bigger (2013).

Time period of director management influences current assets management significantly.

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Duality of director function influences current assets management significantly.

Size of board of directors influences current assets management significantly.

MATERIALS AND METHODS

Research Methodology

In order to collect the research data, the reports of companies listed in Tehran Stock Exchange were used. For this purpose, the data were collected through Tehran Stock Exchange, TADBIR PARDAZ software, RAHAVARD NOVIN software, and other online sources. The collected data were entered to Excel and then EVIEWS and SPSS were used for calculating the measures and testing the hypotheses. In order to use the software and test the hypotheses, it is necessary to examine assumptions of model. Since the combinative nature of research data, the classic assumptions of the research model were examined. For this purpose, classic assumptions of regression analysis were investigated for model. These include similarity of variance and autocorrelation. In order to test the inflexibility of parameters (β_1 , β_2 , and β_3), Chow (analysis of variance) Test should be used. Also research hypotheses will be tested through t, F, and P-value. Also R2 should be used for measuring the amount of effect. In order to analyze the research data and test the hypotheses, multiple regression models were used. The relations and variables should be measured as following table.

Table1: Regressions and measurements of variables

Regression equation (A): $AR = \alpha + \beta_1TN_{it} + \beta_2CD_{it} + \beta_3BS_{it} + \beta_4AC_{it} + \mu_{it}$	
Regression equation (B): $INV = \alpha + \beta_1TN_{it} + \beta_2CD_{it} + \beta_3BS_{it} + \beta_4AC_{it} + \mu_{it}$	
Regression equation (C): $AP = \alpha + \beta_1TN_{it} + \beta_2CD_{it} + \beta_3BS_{it} + \beta_4AC_{it} + \mu_{it}$	
Regression equation (E): $CH = \alpha + \beta_1TN_{it} + \beta_2CD_{it} + \beta_3BS_{it} + \beta_4AC_{it} + \mu_{it}$	
Dependent variables	
Accounts receivables ($AR_{i,t}$)	(Accounts receivables/sales) * 365 days
Inventory ($INV_{i,t}$)	(Inventory/cost of goods sold) * 365 days
Accounts payables ($AP_{i,t}$)	(Accounts payables/cost of goods sold) * 365 days
Cash holdings ($CH_{i,t}$)	Log of average cash
Independent (explanatory) variables	
CEO tenure ($TN_{i,t}$)	Number of years serving as a CEO the chairperson and the CEO and 0 for otherwise
CEO duality ($CD_{i,t}$)	Assigned value 1 if same person occupied the post of the chairperson and the CEO and 0 for otherwise
Board size ($BS_{i,t}$)	Number of directors serving on board
Control variables	
Sales growth ($GROW_{i,t}$)	(Current year sales 2 previous year sales)/previous year sales
Firm size ($FS_{i,t}$)	Log of average assets
Firm performance ($FP_{i,t}$)	Net income after tax/revenue
<i>Notes: $\mu_{i,t}$ – the error term; $GROW_{i,t}$ – sales growth of firm i in time t</i>	

RESULTS AND DISCUSSION

Findings

The descriptive findings of this study are presented in the following section. The assumptions of regression model were investigated in the following section. In the next part, the hypotheses were examined. For this purpose, F, Durbin-Watson measure, t, and other measures were employed.

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Descriptive Findings

In the first step, the descriptive findings should be measured and presented. Table 2 summarizes the descriptive findings of this study. The measures include average, median, maximum and minimum level, elongation, etc.

Table 2: Descriptive statistics of variables

Variable	Mean	Median	Maximum	Minimum	Std. Dev	Skewness	Kurtosis
TN	5.48	3.00	30.00	1.00	6.20	2.34	8.27
BS	5.14	5.00	7.00	3.00	0.42	1.08	7.58
FP	0.10	0.08	0.99	-1.87	0.25	-1.70	16.68
FS	5.74	5.67	7.10	4.79	0.48	0.79	3.45
GROW	0.19	0.12	11.70	-1.00	0.87	8.89	104.51
AR	106.88	95.20	722.36	0.00	84.05	1.72	11.08
AP	64.36	44.00	575.46	0.00	77.65	3.30	17.34
INV	100.12	71.01	866.32	0.00	106.15	3.38	19.26
CH	4.13	4.09	6.12	2.36	0.65	0.29	3.58

Testing Autocorrelation of Residuals

In order to test the autocorrelation of residuals of regression model, Durbin-Watson test was employed. The value of Durbin-Watson should be between 0 and 4. If the value is close to 0, it can be said that the autocorrelation is positive. On the other hand, if the autocorrelation is 4, then it can be said that the autocorrelation of residuals is 0. If the value be around 2, it can be said that there is not any autocorrelation in the model (Badri, 2010).

The Durbin-Watson test was used in our study for testing the autocorrelation of research residuals. If any autocorrelation exists in the model, it should be eliminated through AR or GLS methods. Therefore, the value should be between 1.5 and 2.5. The results of this test are presented in the following table.

Testing the Similarity of Residual Variance

The assumption of residual variance similarity is one of the main assumptions of an appropriate regression model. In order to test this assumption, White Test should be used. In this test, P-value should be less than 0.05 to support H0 and vice versa. The results of this test are presented in table 3.

Table3: White Test

model	F-statistic	p-value
first	2.01	0.09
second	0.09	0.65
third	1.08	0.22
fourth	2.08	0.07

Testing the Sustainability of Variables

Before developing the regression model, it is necessary to test sustainability of research variables. The reason is that if the variables are not sustainable, the regression model will not be actual.

In order to test sustainability of regression model of this study, ADF-Fisher test was employed. The H0 refers that there is not any sustainability between research variables and vice versa.

The results of this test are presented in table 4.

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Table 4: ADF-Fisher test

Variable	ADF – Fisher Chi-square	p-value
TN	137.7	0.00
BS	105.6	0.00
FP	170.2	0.03
FS	207.3	0.00
GROW	457.6	0.00
AR	187.3	0.00
AP	221.4	0.00
INV	199.8	0.00
CH	172.0	0.03

Determining Type of Combinative Data

Since the data of this study is combinative (both year and company), the data should be combinative. In order to select the best methods, F-Limber test was employed. If the F value is more than 0.05, it is necessary to use combinative data and vice versa. In order to examine the results of this test, the Hussmann test was employed. This test is used for selecting the best data between fixed or random effect methods. If the X2 is more than 0.05, then the random effects method should be used. Otherwise, the fixed effects method should be employed. The results of this test are indicated in table 5.

Table5: F-Limber and Hussmann test

model	Statistic	F Leamer Test		Hausman Test		Result
		Prob	Result	Chi-Sq.Statistic	Prob	
first	8.6	0.00	panel	9.1	0.17	Random Effect
second	7.7	0.00	panel	3.9	0.69	Random Effect
third	15.0	0.00	panel	1.97	0.92	Random Effect
fourth	8.7	0.00	panel	9.7	0.14	Random Effect

Testing the Hypotheses Through First Model

The results of data analysis are presented in table 6. Base on the p-value of model for F which is 0 (p-value ≤ 0.05), it can be said that H0 is rejected. This means that none of regression coefficients are not zero. It can be said that there are significant relations among all independent variables and dependent variable of this study. The R2 of this model is 0.88. This means that 88% of variations of dependent variable can be explained through independent variables. In other words, 88% of variations of dependent variable can be explained through independent variables of this study.

Table 6: The results of data analysis through first model

Variable	Coefficient	Std. Error	t-Statistic	p-value
C	-117.18	93.75	-1.25	0.21
TN	-1.26	0.38	-3.35	0.00
CD	-2.11	2.72	-0.78	0.44
BS	-1.23	2.08	-0.59	0.55
GROWTH	-6.46	3.44	-1.88	0.06
FS	36.69	13.41	2.74	0.01
FP	-41.76	14.97	-2.79	0.01
R-squared	Adjusted R-squared	F-statistic	Prob(F-statistic)	Durbin-Watson stat
0.89	0.88	298.7	0.00	2.11

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Testing the Hypotheses Through second Model

The results of data analysis are presented in table 7. Because the p-value of F is acceptable (p-value \leq 0.05), it can be said that H0 is rejected. This means that none of the regression coefficients are 0 simultaneously. It can be said that there are significant relationship among independent variables and dependent variable. The R2 of this model .062. This means that 62% of variations of dependent variable can be explained through independent variables. In other words, 62% of variations of dependent variable derive from in independent variables.

Table 7: The results of data analysis through second model

Variable	Coefficient	Std. Error	t-Statistic	p-value
C	150.80	121.75	1.24	0.22
TN	0.65	0.27	2.38	0.02
CD	-7.67	2.76	-2.78	0.01
BS	6.30	3.48	1.81	0.07
GROWTH	-1.92	2.27	-0.85	0.40
FS	-18.93	22.16	-0.85	0.39
FP	-119.29	10.95	-10.90	0.00
R-squared	Adjusted R-squared	F-statistic	Prob(F-statistic)	Durbin-Watson stat
0.70	0.62	8.6	0.00	1.56

Testing the Hypotheses through Third Model

The results of data analysis of third model are presented in table 8. Because the p-value of this model is significant (p-value \leq 0.05), it can be said that H0 is rejected. This means that none of regression coefficients is not 0. It can be said that there are significant relationship among independent variables and dependent variable. Also, the R2 is 0.06. This means that 6% of variations of dependent variable can be explained through independent variables. In other words, 6% of variations of dependent variable derive from independent variables of this study.

Table 8: The results of data analysis through third model

Variable	Coefficient	Std. Error	t-Statistic	p-value
C	-67.88	20.37	-3.33	0.00
TN	0.52	0.19	2.76	0.01
CD	-4.46	1.14	-3.90	0.00
BS	20.96	4.90	4.27	0.00
GROWTH	-7.42	4.69	-1.58	0.11
FS	8.36	2.65	3.15	0.00
FP	-0.66	19.79	-0.03	0.97
R-squared	Adjusted R-squared	F-statistic	Prob(F-statistic)	Durbin-Watson stat
0.08	0.06	4.8	0.00	1.91

Testing the Hypotheses Through Fourth Model

The results of data analysis of fourth model are presented in table 9. Because the p-value of this model is significant (p-value \leq 0.05), it can be said that H0 is rejected. This means that none of regression coefficients is not 0. It can be said that there are significant relationship among independent variables and dependent variable. Also the R2 is 0.87.

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This means that 87% of variations of dependent variable can be explained through the independent variables. In other words, 87% of variations of dependent variable derive from independent variables of this study.

Table 9: The results of data analysis through fourth model

Variable	Coefficient	Std. Error	t-Statistic	p-value
C	-1.26	0.11	-11.01	0.00
TN	0.002	0.001	2.90	0.00
CD	-0.001	0.01	-0.13	0.89
BS	-0.05	0.01	-3.37	0.00
GROWTH	-0.004	0.01	-0.52	0.60
FS	0.98	0.02	61.21	0.00
FP	0.41	0.06	6.48	0.00
R-squared	Adjusted R-squared	F-statistic	Prob(F-statistic)	Durbin-Watson stat
0.87	0.87	381.9	0.00	1.81

Testing the Stability of Coefficients

In order to investigate the reliability and similarity of the regression model coefficients, the Chow test was used. The H0 of this test indicates that there is not any similarity or reliability in the coefficients of model. It is necessary to develop the model after testing its reliability and similarity. Based on the results of following table, it can be said that p-value and F of this test in all of three models is more than 0.05. So it can be said that H0 is not rejected and it can be said that the model has good reliability.

Table 10: Chow Breakpoint Test

model	F-statistic	p-value
first	2.00	0.08
second	1.58	0.12
third	1.75	0.09
fourth	2.15	0.07

DISCUSSION AND CONCLUSION

The Findings of Hypotheses Testing

The three hypotheses of this study were tested through four models. The results of these hypotheses are presented in the following section.

The Results of First Hypothesis

As indicated in past section, the first hypothesis states that time period of director management influences current assets management significantly. The findings revealed that the hypothesis is supported in all of the above-mentioned models. In the first model and table 6, t-value is significant and reverse. This means that there is a significant negative relationship between time period of director management and receivable accounts management. In the second model and table 7, a significant relationship was observed between time period of director management and payable accounts management. The second model and table 8 show that there is a significant direct relationship between time period of director management and efficiency of assets management. Finally the results of model 4 and table 9 indicate that there is a significant positive relationship between time period of director management and efficiency of cash maintenance management.

The results of second hypothesis

As indicated in the past section, the second hypothesis of our study indicates that duality of director function influences current assets management significantly. Based on the results of table 6 and the first model of this study, it can be said that there is not any significant relationship between and duality of the director function and receivable accounts management. In the second model and table 7, any significant

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relationship was observed between duality of director function and payable accounts management. The third model and table 8 show that there is a significant direct relationship between duality of director function and efficiency of assets management. Finally the results of model 4 and table 9 indicate that there is not any significant relationship between duality of director function and efficiency of cash maintenance management. Therefore, the first and fourth models are not supported and the second and third ones are supported.

The Results of Third Hypothesis

As indicated in the past section, the third hypothesis of our study indicates that size of board of directors influences current assets management significantly. The findings revealed that the hypothesis is supported in all of the above-mentioned models. In the first model and table 6, t-value is not significant. This means that there is not any significant relationship between size of board of directors and receivable accounts management. In the second model and table 7, a significant relationship was not observed between size of board of directors and payable accounts management. The third model and table 8 show that there is a significant relationship between the size of the board of directors and the efficiency of assets management. Finally the results of model 4 and table 9 indicate that there is a significant positive relationship between size of board of directors and efficiency of cash maintenance management.

Discussion

The summary of this study is presented in this section. For this purpose, the summary of findings is presented in the first paragraph and then the comparison of our findings and the findings of past studies is presented in the next section. In the final section of this study, the empirical suggestions of study are presented. The purpose of this study was to investigate the effect of corporate governance on the current assets management. The results of the first hypothesis indicate that the time period of director management influences the components of current assets management. The results of this hypothesis are supported by past studies such as Johnson (1993) and Hermalin and Weisbach (1998). They indicate that increase in the time period of director management does not influences shareholder profit considerably. The second hypothesis indicates that duality of director function influences current assets management considerably. In this respect, Gil and Bigger (2013) indicate that duality of director function influences receivable and payable accounts significantly. Finally, the results of third hypothesis indicate that there is a significant relationship between the size of board of director and improvement in the maintenance of inventory and decrease in the cash maintenance. What is more, no significant relationship was not found among the receivable and payable accounts with the size of the board of directors. The results of Gil and Bigger (2013) findings indicate that size of board of director does not influence the components of current assets management. Based on the results of this study, it can be said that mechanisms of corporate governance influences current assets management significantly.

Suggestions

Only three mechanisms of corporate governance were studied in the present research. However, it is suggested that the future researchers investigate the effect of other mechanisms of corporate governance on the current assets management.

The present study aimed to investigate the effect of corporate governance on the current assets management. It is suggested that the future researchers examine the effect of these mechanisms on the stock profitability, stock return, and capital structure.

In order to measure the company strength in the present study, working capital was used. It is suggested that future researchers measure this factor through current ration and transformation performance.

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