

## The relationship between flow of free cash and mechanisms of corporate governance in listed companies in Tehran Stock Exchange

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**Abstract:** This study examines the relationship between flow of free cash and mechanisms of corporate governance in listed companies in Tehran Stock Exchange. In this study, statistical population consisted of all companies listed in Tehran Stock Exchange. After the elimination, the 97 companies were selected as the sample for this study, In this regard, three hypotheses were developed. To test these hypotheses, data of companies were collected during the period 1386-1390. Moreover, data of every year of companies were analyzed by computer in spreadsheets (Excel) and statistical software (SPSS). To test the hypotheses was used Pearson correlation, simple and multiple linear regression model. The results of the research showed that there is no significant relationship between the flow of free cash and the percentage of institutional investors, The second hypothesis, there was observed negative significant correlation between the flow of free cash and other members of the Board, and there was the positive significant relationship between the flow of free cash and the influence of ownership of the state.

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**Key words:** (flow of free cash, the percentage of institutional ownership, the percentage of non-duty members of the Board, the influence of government ownership)

### Introduction

In a general view of corporate governance, including legal arrangements, culture and institutions that determine the direction of movement and performance of companies. Elements that are presented in the scene, including shareholders and structure of ownership, board of directors and their combination, management of company guided by the Managing Director or Chief Executive Director and other stakeholders that may have effects on the company. Corporate governance system as a monitoring and controlling mechanism considers the financial and managerial behavior. And the system coordinates with the legal and cultural system of each company (organization) and its mechanisms was developed according to the conditions. The most important components of the system in the company rather bound and non-bound members of the Board of Directors, is their independence from the Executive Director, the presence or absence of committees including the audit committee of institutional investors. Managers of business units in different situations according to external and internal factors due to the risk and return of profit should choose a good strategy for assets, liabilities, revenues and expenses, since the selected strategies are appropriate in a certain situation, there will be the possibility of achievement to the best management strategy of assets and debt, revenues and costs. Balancing between these factors has particular importance, as making decision has an impact on one another, 'among the factors of entering

and leaving a profit only the cash of business units is the most basic issues that underlies many of the decisions and judgments of investors, creditors and other major groups of users of financial data on the same form. Investors and creditors show affection to investment and credit to units that have high operating cash flow, and avoid credit and investment in that group of units that lack of the high cash flow. Then the institutions that the result of ordinary activities is a negative cash flow cannot provide deficit of funds from other activities, such as financial and investment supply. Because the ability of an institute to raise cash from financing activities depends on the cash that earned by free activities. If the company doesn't have to be enough cash to pay debt maturities, dividends and to fulfill the obligations creditors and shareholders don't tend to invest in companies. For example, one of the main risk of loans is the level of uncertain cash flows as a result of early payment of loan installments. The risk of early payment of the taken loans is equally distributed. Because of increasing of the accuracy of the predictability of cash flows, corporate mechanisms is studied of different aspects. Some managers determine optimal amount of cash with the balance between benefits and cost of holding cash, in fact managers measure the optimal level of their cash with determining marginal costs and marginal benefits from holding cash, As a result, there is an appropriate level of cash for managers that in its management with active approach based on cost-benefit analysis decide to hold cash. Thus, with regard to the importance of flow of

free cash in performance we are interested in researching in this area. And we study the relationship between flow of free cash and some mechanisms of the Tehran Stock Exchange.

### **The statement of problem**

Regulatory mechanisms of corporate governance are the most important factors that effect on the company's free cash. How to employ flow of free cash, an important decision on the conflict between shareholders and managers.. In times of economic growth of companies, as reserves of cash increases managers decide whether free cash to be distributed among the shareholders, or to be spent domestic cost, be employed to study abroad or to be kept? That the benefit-seeking managers how select one thing between using and maintaining cash reserves is unclear. Managers must compare personal profit of external costs with the flexibility of the current free cash flow. Furthermore, benefit- seeking managers must measure the possibility of increased demand for cost caused by high cash holdings. In this context, institutional investors and non-duty-members can have an important role in the conduct of free cash flow, and with the control of the managers s performance prevent from excess of profits over cash caused by holding free cost, also the rate of government ownership is the effective factor of the flow of free cash. In Iran many research hasn't been taken on the relationship between corporate governance and regulatory mechanisms of the free cash flow of the company. Aim of this study is to investigate the relationship between corporate governance mechanisms, including the percentage of institutional investors, the percentage of non-duty-members of board directors and the rate of the government influence as independent variables and the flow of free cash as the dependent variable in the Tehran Stock Exchange.

### **The importance of topic**

The companies determine the flow of their free cash by establishing an equilibrium (balance) between the benefits and costs of holding cash. In fact, the companies adjust the optimum level of the flow of free cash with determining the rate of importance of the finally costs and finally benefits of holding cash. It is important that there is an appropriate level of cash for companies that management with active approach, based on cost-benefit analysis, decide to hold cash, On the other hand, institutional investors and non-duty personnel could have a significant impact on reducing costs of flow of free cash. The importance of this study is to highlight the role of regulatory mechanisms of corporate governance on free cash flow. The advantage of such a model, investors decide to buy and sell or hold stock Directors decide on the increase or decrease of capital, purchase of capital assets and

also creditors decide about the safety of their investments and the industry executives of different section judge about collections under their coverage Therefore, it is necessary to understand the impact of institutional investors, non-duty-members and influence of ownership on free cash flow.

### **The aim of the study:**

The aim of this study is to explore the relationship between corporate governance mechanisms, including the percentage of outside board members, institutional investors and the influence of state ownership as independent variables and free cash flow as the dependent variable in the Tehran Stock Exchange.

### **Research hypotheses:**

-1-There is a significant relationship between institutional investors and free cash flow in the Tehran Stock Exchange,

-2-There is a significant relationship between the percentage of non-duty members of the board and free cash flow in the Tehran Stock Exchange,

-3-There is a significant relationship between influence of state ownership and free cash flow.

### **Methods:**

This study was part of applied research and the methodology of the correlative researches was casual. In order to test the hypotheses was used multivariate model and multiple regression.

$$FCFKT = \alpha + \beta_1 (INSTOWN) + \beta_2 (OUTD) + \beta_3 (GI) + \epsilon, T$$

This study has three hypotheses that for the three hypotheses is used a free cash flow variable. The first and second hypothesis, each of variables INSTOWN percentage of institutional ownership and OUTD percentage of outside board members individually calculated. Then both hypotheses have been studied the relationship between free cash flow with INSTOWN percentage of institutional ownership and OUTD non-duty-members by using Pearson's correlation and regression models. But for the third hypothesis for GI variable was used the rate of influence and government ownership, comparison of the means for comparing the distribution a variable in different groups, and data was analyzed, then to test this hypothesis was used Pearson's correlation and regression models

### **Theoretical Foundations**

Historical data related to cash flow can help judge the amount, time and rate of certainty of future cash flows from users of financial statements.. These data indicate the relationship between the profitability of the business units and their ability to generate cash and thus they determine profits by business units.. In addition, analysts and other users of financial data often formally or informally assess and compare models for the present value of future cash flows of

the business units. Historical data related to cash flows can be useful to control the accuracy of past assessments, and it shows the relationship between business activities and receive payments, (great principle, Moses, 1384, p. 216...).

Cash is a vital source of per business unit that generating balance between available cash and cash needs is the important factor in the economic health of per unit. Cash through normal operations and other sources of financial supply is entered the business unit, and it is consumed for operating interest payments, debt repayment and extension of profit. Flow of entering and leaving cash in per unit reflects management decisions about short-term programs of operations and investment plans and financial supply. The data related to flow of in and out cash in a single-business unit is foundation of many decisions and judgments about many investors, the Creditors and other parties used financial data.

**The statistical population and selection of sample:**

Since in Iran the stock is the only organization that has available data and there isn't centers and other comprehensive data that can be used for research centers and researchers. In the present study statistical population consisted of companies are as a member of the Tehran Stock Exchange. Accordingly, based on financial publication published by the Stock Exchange for three years and also it is used the software that contains data related to the financial statements of companies listed on the Stock Exchange of Tehran. The target population of the study are the accepted companies in stock Exchange of Tehran.

**Analysis of the data**

**First hypothesis:**

There is a significant relationship between the free cash flow and the percentage of institutional investors in the Tehran Stock Exchange

To study the relationship between FCF and INSTOWN, following table presents the analysis of variance.

**Table (4-3)** Analysis of variance

SOURCE	DF	SS	MS	F	P
Regression	1	0.257	0.257	0.13	0.721
Error	96	109.536	1.992		
Total	97	109.793			

Since the P-value, ie 21/7% is greater than 5%, so in the significance level 5% assumption (relation)

is rejected And assumption  $H_0: \beta = 0$  (no relation) is accepted, we conclude that there is no relationship between the level of significance of 5%, the opportunities of free cash flow (FCF) and the percentage of institutional ownership (INSTOWN). Therefore there is no need to test the underlying assumptions of regression, there cannot be significant

statistics between these two variable models of linear regression.

**The second hypothesis:** there is a significant relationship between the free cash flow and other non-duty members of the Board in Tehran Stock Exchange,

The obtained results of regression for examining the relationship between FCF and OUTD in table of variance and regression analysis is presented as follows:

**Table (4-4)** Regression equation FCF = 0.910 - 0.663 OUTD

Predictor	Coef	Stdev	T	P
Constant	0.9097	0.3022	3.01	0.004
OUTD	-0.6634	0.1832	-3.62	0.001
S=1.270	R-sq= 19.3%			

**Table (4-5)** Analysis of variance

SOURCE	DF	SS	MS	F	P
Regression	1	21.145	21.145	13.12	0.001
Error	96	88.648	1.612		
Total	97	109.793			

For all the hypotheses of the study is considered, 5% error (significance level = 5%), confident level 95% Based on this test.

H1 is rejected, if it is  $pvalue > \alpha\%$

H1 is accepted, if it is  $pvalue < \alpha\%$

Since the P-value is less than 5% is 001/0. The significance level of  $\alpha = 5\%$

Suppose  $H_0: \beta = 0$  (no relation) is rejected, this assumption (no relation)  $H_1: \beta \neq 0$  is accepted and we conclude that there is a relationship between significant level of 5% free cash flow (FCF) and the percentage of non-bound (OUTD) and since there is a negative beta coefficient (-0.663 OUTD) so There is an inverse relationship between the free cash flow (FCF) and the percentage of non-bound (OUTD)

1- **Normality of remains:** Kolomogrov-Smirnov test was conducted to examine this assumption and the P-value of this test is 141/0 and is greater than 05/0 and the hypothesis is not rejected

2. **Independence of remains:** Ranz test was conducted to examine this assumption and the p-

value is 05/0 and it is greater than 099/0, and the assumption is not rejected.

3. **Homogeneity of variance :** to examine this assumption, residues diagram of regression were plotted against the fact that the shape of the graph does not show any particular trend

Then the above assumption is not rejected

Therefore, three fundamental assumptions of regression confirmed the above conclusions

**The third hypothesis:** there is a significant relationship between the free cash flow and the influence of state property

The obtained results of regression test, to examine the relationship between FCF and GI in Table of variance and regression analysis, they are presented as follows.

**Table (4-6)** Regression = FCF -3.57 + 4.52 GI

Predictor	Coef	Stdev	T	P
Constant	-3.5674	0.9903	-3.60	0.001
GI	4.518	1.236	3.66	0.001
S= 1.267	R-sq = 19.5%			

**Table (4-7)** Analysis of variace

SOURCE	DF	SS	MS	F	P
Regression	1	21.458	21.458	13.36	0.001
Error	96	88.335	1.606		
Total	97	109.793			

Since the P-value 5% is less than  $\alpha$  in the level 001/0. Thus, in significance level 5%, assumption  $H_0: \beta = 0$  (no relation) is rejected, the hypothesis of research  $H_1: \beta \neq 0$  (no relation) is accepted and we conclude that there is relationship between the level of significance of 5% of free cash flow (FCF) and the influence of state ownership

(GI) and since the beta coefficient (4.52 GI) is positive so there is a direct relationship between free cash flow (FCF) and the influence of state property (GI).

**Assumptions that underlying Regression are as follows:**

1 Normality of remains: Kolomogrov-Smirnov test was conducted to examine this assumption and because the P-value > is 0/15 and it is greater than 05/0, so the hypothesis is not rejected

2. Independence of remains: Ranz test was conducted to examine this assumption and because the p-value is / 099 and bigger 05/0 and this hypothesis is not rejected.

3. Homogeneity of variance: to examine this assumption, residues diagram of regression were plotted against the fact that the shape of the graph does not show any particular trend. Then the above

**Conclusion of the study:**

**The first hypothesis**

According to the test of this hypothesis P-value = 0/721 is computed that in comparison with 5% error is larger. Thus the research hypothesis is rejected, means there is no relationship between the free cash flow (FCF) and the percentage of institutional ownership, the research is the results of researches of Harfvrd and colleagues (2008) that they did not confirm it mentioned in Chapter II. Lack of correlation can be interpreted the same.

Since the measurement of free cash flow requires to analyze the advanced knowledge of accounting, in Iran Managers pay less attention to this and due to the lack of the focus on free cash flow cannot find a relationship between free cash flow of the property and the spatial organization.

**The second hypothesis**

According to the test of this hypothesis, P-value = 0/00 was calculated 1, that in comparison with 5%

error is smaller and it proves this hypothesis that there is a relationship between the free cash flow (FCF) and the percentage of non-duty-members. Since the slope of the regression line is negative ( $B < 0$ ) the relationship between the free cash flow (FCF) and the percentage of non-members is reverse.

The conclusion of Researches of Liohamkaran (2009), which was mentioned in the second chapter confirmed.

#### The third hypothesis:

According to the test of this hypothesis test P-value = 0/001, was calculated. In comparison with the error that is smaller than 5% and it proves this hypothesis that there is relationship between the free cash flow (FCF) and the influence of state ownership and since the slope of the regression equation is positive ( $b > 0$ ) there is the direct relationship between free cash flow (FCF) and influence of state ownership.

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