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Research Article

THE IMPACT OF INSTITUTIONAL OWNERSHIPAND MANAGERIAL OWNERSHIP, ON THE RELATIONSHIPBETWEEN FREE CASH FLOW AND ASSET UTILIZATION

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ABSTRACT
According to agency theory, ownership structure plays an important role in controlling opportunistic behaviors of managers. This research examines how institutional investors and managerial investors modify the relationship between free cash flow and asset utilization. 101 companies were selected as the target sample through systematic elimination method according to specified criteria from all companies listed on Tehran Stock Exchange. In This study which was conducted over the period of 2007-2012 three hypotheses were proposed and investigated. The data analysis was performed using panel data regression model with fixed effects. Multiple regression analysis results showed a significant negative linear relationship between free cash flow and asset utilization. The obtained results also indicated that managerial ownership and institutional ownership influence the relationship between free cash flow and asset utilization and they can be moderate this relationship.

***Keywords**: Free Cash Flow, Asset Utilization, Institutional Ownership, Managerial Ownership*

There is a general belief that the primary purpose of a company is to maximize shareholder wealth.

Although there are different views on this subject, to maximize shareholder wealth is related to the role of managers in decision making process, that is maximizing shareholder wealth is created through the increased value of the company and increasing the value of the company is related to good decisions made by managers.

On the other hand, according to agency theory, because of shareholders-managers' interest conflict, it is likely that the activities performed by managers are not in order to maximize shareholder wealth rather they may make decisions leading to maximizing their own interests. Since managers do not always act in the interests of the owners, the presence of free cash flow allows mangers to spend financial resources on activities that not only does not increase shareholders' wealth but in some cases reduce it and generate more agency problems which leads to inefficient asset utilization(Jensen. 1986)

In the absence of effective monitoring, managers may choose to invest in projects with lower or negative net present value in order to achieve additional funds or bonuses. So far limited studies have been done about the monitoring role of owners on asset utilization in the presence of free cash flow.

The objective of this study is to examine the relationship between free cash flow and the asset utilization. It also seeks to determine the effect of different groups of owners (i.e., institutional owners and managerial owners) on modifying this relationship. The study assumes that when there is a high volume of free cash flow, different groups of owners apply the necessary controls to prevent opportunistic behaviors of managers concerning asset dis-utilization. If free cash flow exists, ownership structure plays an important monitoring role in asset utilization. It is expected that the role of ownership reduces the undesirable effects of free cash flow and improves asset utilization.

THEORETICAL FRAMEWORK

Free cash flow

Free cash flow is the cash left for the company after properties` maintenance and development expenses. The company's free cash flow is of great importance in order to analyze the value created for shareholders. When mangers face cash flow, their most important decision is how to use this free cash flow. By identifying growth opportunities, managers can invest the funds in projects with positive net present value and makes the market to show a positive reaction to this kind of free cash flow and as a result increase the shareholders `wealth. According to agency theory, some managers are interested in providing a good picture of the financial position of the entity to shareholders and other stakeholder in order to maximize self-interest, social welfare and consolidate their own positions.

These managers may invest free cash flow in projects with negative net present value to obtain some short-term personal interest. Thus, high free cash flow causes agency problems because managers tend to use the cash for activities which first satisfy their personal interest and then create value for the company. The aforementioned reflect that valuing free cash flow of a company can be influenced by the companies 'future growth opportunities in a way that market gives higher values to companies` free cash flow with higher growth opportunities.

Free Cash Flow and Asset Utilization

An increase or a decrease in firm value may be due to different utilizations of free cash flow by the company. Free cash flow leads mangers to use the available free cash for activities that may or may not be effective in increasing the firm's value (Jensen, 1986).

Since managers mainly seek for maximizing their personal interests, they may try to invest the company`s free cash flow in projects without considering the negative present value of these projects in order to satisfy their personal interests (Chung, Firth, & Kim, 2005).

Even if these investments have a positive return but this return may be lower than the cost of the capital (Jensen, 1986). How to use a company`s assets influences the value of the company so that effective asset utilization would increase the firm value, whereas ineffective asset utilization would decrease the firm value.

Since Managers tend to invest free cash flow in projects that satisfy personal interests, so increasing free cash flow may lead to ineffective asset utilization (Jensen, 1986). Therefore, it can be stated that companies with high volume of free cash flow tend more to invest in low profitable projects compared to companies with low volume of free cash flow (Griffin, 1988; Shin & Kim, 2002). Based on the above discussion it can be concluded that the presence of free cash flow may motivate managers to retain cash in the firm and not to distribute it as dividends (Jensen, 1986). Managers would increase the controlling power on the firm's assets by using the free cash flow for the purchase of assets with personal benefit to them (Ang et al., 2000). Therefore, it is expected that free cash flow is related to the inefficient use of assets.

Moderating Effects of Ownership Structure

Previous studies provide evidence that ownership structure is one of the important and effective factors in controlling the opportunistic behavior of managers (Jensen &Meckling, 1976). Owners have the motivation and power to monitor the utilization of assets (Ang et al., 2000). They try to control opportunistic behavior of mangers by moderating the relationship between free cash flow and asset utilization. In addition, by controlling mangers` performance by shareholders, agency costs arising from the information asymmetry and separation of ownership and management would reduce (Watts & Zimmerman, 1983). This study assumes that the ownership structure strengthens dynamics of free cash flow and asset utilization.

Background of the research

Takiah et al (2012) in a study of 477companies listed on the Malaysian Stock Exchange in 2005investigated the effects of modifying ownership structure (foreign ownership, government ownership and managerial ownership) on the relationship between free cash flow and asset utilization. The research findings showed that there is a negative relationship between free cash flow and asset utilization and then indicated the moderating effect of each of the ownership structure on the aforementioned relationship. They found that monitoring the utilization of assets in firms with high foreign ownership and high free cash flow is more efficient. Moreover, when there is a lot of managerial ownership, supervision over utilization of assets among firms with high free cash flow is more efficient than monitoring the utilization of assets among firms with low free cash flow. They also found that government ownership leads to inefficient utilization of assets in companies with high free cash flow.

Chen et al (2009) tested the impact of agency costs arising free cash flow on company's cost of capital. The results showed that companies with major and influential shareholders have less agency costs caused by free cash flow and therefore have less cost of capital and their strength is greatest in controlling free cash flow. They introduced free cash flow as an indicator that can indicate a potential risk arising from excessive investment of managers.

RESEARCH METHODOLOGY

This study is an applied and correlational study in which combined regression based on panel data was used to estimate the model. To summarize the data, initial variables were calculated in Excel using the collected data. The hypotheses were tested using Eviews7 software.

The main objective of the research is to investigate the relationship between free cash flow and assets utilization as well as the impact of institutional ownership and managerial ownership on this relationship. The target sample of this research was selected via elimination method from all firms listed in Tehran Stock Exchange over a six-year period (from 2007 to 2012) which had the following characteristics:

1. The companies are listed on the Stock Exchange prior to 2007 and they have not been removed from the list of companies until the end of 2012.
2. They shouldn`t have transaction interruption during the financial year
3. In the study period, the company should not be operating loss in its fiscal year-end audited income statement.
4. In order to increase comparability, the financial year of the companies is based on the calendar year.

Thus, considering the aforementioned limitations, 101 companies were identified as the target sample, all of which have been studied and therefore no sampling was done.

THE HYPOTHESES OF THE RESEARCH

This study examines three hypotheses as follows:

1. Free cash flow is negatively related to asset utilization.
2. Institutional ownership moderates the relationship between free cash flow and asset utilization.
3. Managerial ownership moderates the relationship between free cash flow and asset utilization.

RESEARCH VARIABLE

Dependent variable

•Utilization of assets (Assets_Ut): This variable is calculated by the following equation:

$$\text{Assets-Ut} = \text{Sale}_{i,t} \div (\text{Plant} + \text{property} + \text{Equipment})_{i,t}$$

Independent variable

•Free cash flow (FCF): This variable is calculated by the following equation:

$$FCF = (INC - TAX - INTEXP - PSDIV - CSDIV) / ASSET$$

Moderating variables

•institutional ownership (INS): Percentage of shares held by government and public companies from total capital.
•managerial ownership (MO): Percentage of shares held by board of members from total capital.

Control Variables

•Company size (SIZE): This variable is calculated by the following equation:

$$\text{Log}_{\text{Sales } i,t}$$

•Debt ratio (DEBT): This variable is calculated according to the following equation:

$$\text{DEBT} = \frac{Liabilities}{Assets}$$

•Return on assets (ROA): This variable is calculated by the following equation:

$$ROA = \frac{Netprofit\ aftertax}{Total\ assets}$$

THE RESEARCH FINDINGS

Descriptive Statistics

Before testing the research hypotheses, descriptive statistics of the variables were calculated and presented in Table 1. This table contains descriptive statistics for the independent variables, moderator variables and the dependent variable.

The first hypothesis

The first hypothesis: Free cash flow is negatively related to asset utilization.

According to the results of testing the regression model described in Table 2, it can be observed that the amount of P-Value related to (F (probe (F-statistic), which indicates the significance of the regression equals 0.000. It implies that the model is significant at 95% of confidence level. Moderated R2 also equals 0.37 which indicates that approximately 37% of changes of the dependent variable can be explained by the independent variables in the model. As can be seen in Table 2, the coefficient of the independent variable i.e. free cash flow equals -0.016, and its significant number equals 0.000. Regarding t-statistic and p-Value for this variable, the results show statistical significance of this coefficient at 5% error level. These findings indicate that there is a negative and significant relationship between free cash flow and asset utilization in companies listed on the Stock Exchange, and as a result, the first research hypothesis is supported.

The second hypothesis

The second hypothesis: Institutional ownership moderates the relationship between free cash flow and asset utilization. According to the results of testing the regression model described in Table 3, it can be observed that the amount of P-Value related to prob (F-statistic which indicates the significance of the regression equals 0.000. It implies that the model is significant at 95% of confidence level. Moderated R2 also equals 0.61 which indicates that approximately 61% of changes of the dependent variable can be explained by the independent variables in the model. Therefore this regression has a good explanatory power. According to Table 3, in the study of the effect of institutional ownership on the relationship between free cash flow and asset utilization, it was found that with the entering of institutional ownership in the model, the relationship between free cash flow and asset utilization is moderated and institutional ownership leads to utilization of assets. Therefore, the second hypothesis is also confirmed.

The third hypothesis

The third hypothesis: Managerial ownership moderates the relationship between free cash flow and asset utilization.

According to the results of testing the regression model described in Table 4, it can be observed that the amount of P-Value related to prob (F-statistic) which indicates the significance of the regression, equals 0.000. It implies that the model is significant at 95% of confidence level. Moderated R2 also equals 0.52 which indicates that approximately 52% of changes of the dependent variable can be explained by the independent variables in the model. Durbin –Watson also equals 1.84, which is between 1.5 and 2.5, and shows a lack of self-correlation between variables. As can be seen in Table 4, the coefficient of the variable FCF * MO equals 0.405, and its significant number (Prob) equals 0.0011. Regarding t-statistic and p-Value for this variable, the results show a statistical significance of this coefficient at 5% of error level. These findings indicate that managerial ownership has an impact on the relationship between free cash flow and asset utilization, and moderates it. Therefore, the third research Hypothesis is confirmed.

Table 1: Descriptive statistics

Type of variable	variable	Minimum	Maximum	Mean	Standard deviation(SD)
Dependent	Assets_Ut	0.057	1.798	0.8102	0.4651
Independent	FCF	0.0045	0.6056	0.1096	0.1630
Moderator	INS	0.000	0.987	0.437	0.3118
	MO	0.000	0.073	0.0478	0.0084
Control	SIZE	3.553	7.956	5.753	0.6479
	DEBT	0.0514	0.6287	0.2868	0.1449
	ROA	0.0004	0.6204	0.1389	0.1213

Table 2: Results of regression analysis of the first hypothesis

p-value	T-test	Standard deviation	Coefficient	Hypothesis and measurement model
0.000	-14.756	0.00113	-0.0166	FCF & ASSET_UT
$ASSET\_UT = \alpha_0 + \alpha_1 SIZE + \alpha_2 DEBT + \alpha_3 ROA + \alpha_4 FCF + eit$				
			1.697	Durbin – Watson test
			0.000	Prob(F-statistic)
			0.3675	moderated R-squared

Table 3: Results of regression analysis of the second hypothesis

p-value	T-test	Standard deviation	Coefficient	Hypothesis and measurement model
0.000	4.113	0.004	0.016	INS*FCF & ASSET_UT
$ASSET\_UT = \alpha_0 + \alpha_1 SIZE + \alpha_2 DEBT + \alpha_3 ROA + \alpha_4 FCF + \alpha_5 INS + \alpha_6 (FCF * INS) + eit$				
			1.897	Durbin – Watson test
			0.000	Prob(F-statistic)
			0.6076	moderated R-squared

Table 4: Results of regression analysis of the third hypothesis

p-value	T-test	Standard deviation	Coefficient	Hypothesis and measurement model
0.0011	3.285	0.123	0.405	MO*FCF & ASSET_UT
$ASSET\_UT = \alpha_0 + \alpha_1 SIZE + \alpha_2 DEBT + \alpha_3 ROA + \alpha_4 FCF + \alpha_5 MO + \alpha_6 (FCF * MO) + eit$				
			1.848	Durbin – Watson test
			0.000	Prob (F-statistic)
			0.5203	moderated R-squared

CONCLUSION

The aim of this study is to investigate the effect of institutional and managerial ownership on the relationship between free cash flow and asset utilization. To analyze the data during the research, panel data method with fixed effects was used and if institutional and managerial owners as a moderating factor can reduce the negative relationship between free cash flow and asset utilization was examined. The obtained results show that there is a significant negative relationship between free cash flow and asset utilization. On the other hand it implies that institutional ownership and managerial ownership can influence the relationship between free cash flow and asset utilization, and moderate this relationship. The results also indicate that institutional investors and managerial investors can play an important role on company`s performance . Since the importance of corporate governance mechanisms has been emphasized in Tehran Stock Exchange `s corporate governance regulations, it is required that government and the companies, with a correct understanding of corporate governance, take actions towards creating an appropriate ownership structure, which will result in improving their performance. It is also suggested that when investors decide whether to buy or sell, consider shareholders` combination as one of the decision variables.

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