# Examine the Relationship between Financial Performance and Capital Structure, Free Cash and Operational Risks in Governmental Companies

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**ABSTRACT:** An important asset for the company is liquidity and Cash retention depends on management decision and avoidance of risk of information asymmetry. Disclosure of Financial Information, which published clearly through financial statements, an important factor is to reduce the information asymmetry between managers and owners. Given the importance of this issue, the study tries to survey the effect of operational, liquidity and financing policies on the performance of the listed companies. These companies in a 4 year period from 2008 to 2012. The results show that there is a significant relationship between capital structure and the performance of companies. There is a significant relationship between free cash flow and the performance of companies. There is a significant relationship variety of activities and products and the performance of companies.

**Key Word:** Financial Performance, Capital Structure, Free Cash, Operational Risks

## INTRODUCTION

Government policies are applied in intervention frame in different economic, political, cultural and social sections. Policies of area are come into force to develop, spread and improve that section and improvement and modification of the results of the area. The purpose of economic policy is finally the economic development. Since economic development is not confined merely to the growth in GDP and it also includes social welfare, so governments are exerted their policies in all economic sectors and economic markets including factors of production, labor, goods and financial sectors. Proper functioning of the financial sector can be a positive economic stimulus and if it is gotten in trouble, as the recent financial crisis happened, sever crisis and the fluctuations in other sectors of the economy will follow.

Hence, government policies in this area have particular importance. It should be noted here, the environment in which firms operate is a growing and competitive environment and companies need to progress through new investments to expand their operations. Industrial projects are needed to supply financial resources and cash. In this respect, companies are forced to use financing mechanisms.

However, the financial market consists of money market and capital market plays an intermediary role. In its demand – side there is a process called financing and in its supply-side there is a process called investment. Despite this market, companies are able to refer to it in different ways to provide the needed funds to finance. Money market transfers cash from lenders to borrowers through banks and financial institutes.

### Theoretical Framework and Research Background
#### Independent Variables

**Free Cash Flow:** Free cash flow is a gold standard, because it shows a company's operating profitability. Free cash flow is not a perfect criterion, but compared with earnings and earnings per share, its manipulation is very difficult. This is why it is preferred to net profit. According to above model, free cash flows are calculated through following formula: (Lehn and Poulsen, 1989).

Where:

$FCF_{i,t}$ = free cash flows of company i in year t.

$INC_{i,t}$ = Operating profit before depreciation of company i in year t.

$Tax_{i,t}$ = total paid tax of company i in year t.

$INTEXp_{i,t}$ = paid interest expense of company i in year t.

$CSDIV_{i,t}$ = paid earning by common dividends of company i in year t.

### Capital Structure

According to many conducted studies, capital structure decision is one of the basic issues faced by financial managers. This seemingly simple decision, which is defined as the optimal combination of different sources of finance companies, has been investigated from different perspectives (Cole, 2008). Financial leverage as a criterion for the selection of an appropriate capital structure has significant importance, because it can have a great influence on existing competitive advantages in an industry. So that, the industry's high financial leverage makes the fight more active competition and in other industries, it will lead to a decrease in the competitive struggle (Hiller et al., 2008). The capital structure of the company is the combination of debt and equity which includes the items in left side of balance sheet (Jahan Khani and Vizdani, 1994). In another words, capital structure bodes to the extent that a company has been providing via loan or borrowing (Abde Tabrizi and Moshir Zadeh, 2005). Following variables were

used in this research as criterion of capital structure (Baker et al., 2005).

$$DR = \frac{TD}{TA}$$

Where:

DR: debt ratio

TD: total debt

TA: total assets

$$Long - term\ Debt\ Ratio = \frac{Long - term\ Debt}{TA}$$

LDR: long-term debt ratio

LD: long-term debt

**Operational Risk:**

Operational risks are mostly due to the wide range of possibilities for error and shortcoming of a particular business operation or financial institute. This risk often is occurred in banks and financial institutes which that is not related directly to the credit risks and market. These risks are resulted from human error, computer and its programs, error in the decision and even damages resulting from misappropriation types. Important note about operational risks is the certain complexity of the concept, so that operational risks are usually subject to uncertainty and other risks facing the firm. Of definitions provided for operational risks in organization can be mentioned as follows:

• Any risk except credit and market risk.

• The risks that come through the financial institution operations.

In this research, operational risk consists of the percentage change in the ratio of operating profit to sales change (how much operational profit will change will a percentage change in sale?).

• Dependent Variable

• Company's performance

Tobin Q ratio is another tool for measuring corporate performance which calculated via dividing by company' market value to book value or replacement value of company's assets. This ratio was introduced by Mr. James Tobin in 1978 for analyzing Macro economy to predict investment activities in the future. His goal was to establish a causal relationship between Q Tobin and conducted investment amount by company. If estimated Q Tobin be greater than 1, there is plenty of incentive to invest. In another words, high Q Tobin is usually a sign of valuable growth opportunities. If Q Tobin ratio is lesser than one, investment is stopped. If the company takes advantage of any investment opportunities, the final value of Q Tobin will tend towards 1. Q Tobin ratio is used to measure company's value and performance.

**Research Background**

Balla and Mateus (2012) conducted a research about capital in Hungary country in the period from 1995 to 1999 and found that there is a direct relationship between company size and financial leverage.

Nikolas (2007) showed how firm characteristics effect on capital structure in Greece country using integrated data of 19 samples of Greek companies in Athens's market during the years 1997-2001. He considered the relationship between company features (including company size, immediate ratio, cost coverage ratio, market value to book value) and capital structure and found that there is a negative relationship between capital structure and amount of interest rate coverage, expected growth and immediate ratio and there is a positive relationship between company size and capital structure.

Epure and Lafuente (2012) surveyed the effect of risk on bank performance in banking industry in Costa Rica country for the period 1998 to 2007. They found that when the capital adequacy ratio provides a positive effect on the net profit margin, the loans have a negative impact on productivity and return on assets. Francis (2011) in a study concludes that distribution of profits between shareholders, in categories such as firm size, would be effective in predicting free cash flow. The results obtained in research showed that for making relation between free cash flow and return on equity is that book value of equity, net income and dividends are used as control variables.

**MATERIAL AND METHODS**

From the standpoint of goal, this research is an applied research and from data collection method point of view is a correlation type. Using a research method, the data was analyzed, the hypotheses were tested and finally final conclusion was reported. The collected data was calculated using Excel software and then analyzed using SPSS software. Reliability, unreliability and co-integration test were considered using unit root test. Then, using Liner F test determined that there is heterogeneity in some sections or some sections are heterogeneous with each other. Hausman test was used to determine that Hausman test was used to determine being the fixed or random of differences of sectional units. • There is a significant relationship between capital structure and company performance.

• There is a significant relationship between free cash flow amount and company performance

• There is a significant relationship between reduced operational risk and company performance.

# RESULT

**Statistical Test of Research Hypotheses:**

**First Main Hypothesis of Research (company' performance):** As can be seen, table 4-9 provides the results related to model of company's performance (Q-Tobin). To survey determination coefficient of company's performance indicated that 0.023 % from the changes of performance have been determined by policies of financing, liquidity and operational. It means that the variables have been determined 2.3 % from changes of dependent variable (company's performance) and the rest of changes are influenced by factors outside of the model (98.7 percent). To survey significance of fitted regression model showed that amount of F-statistic is significantly smaller than 1 in significance level of 1% (sig<0.01). So $H_1$ is supported and $H_0$ is rejected with confidence higher than 99%. It means that there is a significant relationship between policies of financing, liquidity and operational and the performance of listed companies in Tehran Stock Exchange. To survey regression coefficients of the variables indicates there is a positive relationship between capital structure (0.163) and amount of free cash flow (0.026) with the performance of companies. It means that when capital structure and amount of free cash flow increase, company' performance will increase. Generally, according to the results of testing fifth, sixth and seventh hypotheses, it can be stated that policies of financing, liquidity and operational (capital structure and amount of free cash flow) lead significantly to increase company' performance.

- **First sub-Hypothesis- there is a significant relationship between capital structure and company' performance.**

The results of fifth sub-hypothesis showed that the regression coefficient of capital structure variable (0.185) is significantly smaller than 5% in error level of 5%. It means that there is a significant relationship between capital structure and company's performance. Hence $H_0$ is rejected with higher than 95% confidence, so there is a significant relationship between capital structure and company's performance. Determination coefficient of model showed that capital structure could determine 1 percent from changes of company' performance.

- **Second Sub -Hypothesis: there is a significant relationship between amount of free cash flow and company' performance.**

To survey sixth sub-hypothesis showed that amount of free cash flow has been determined 1.6 % from changes of company's performance. Significance level of regression coefficient of amount of free cash flow variable (0.025) is smaller than 5% and significant. It implies that there is a significant positive relationship between companies' performance and amount of free cash flow. Hence $H_0$ is rejected and $H_1$ is supported.

- **Third Sub – Hypothesis: there is a significant between reduced operational risk and company's performance.**

The results of eighth sub – hypothesis of the research showed that regression coefficient of operational risk variable (-0.0005) is bigger than 5%, but not significant. Hence there is not a significant relationship between operational risk and company' performance in error level of 5%. So $H_0$ is supported and $H_1$ is rejected.

**Table 1.** Results of testing fifth, sixth and seventh hypotheses

| Variable | Regression coefficient | Standard error | t-statistics | Significance level |
|---|---|---|---|---|
| Constant number | 0.807929 | 0.096350 | 8.385344 | 0.0000 |
| Capital structure | 0.163001 | 0.078317 | 2.081311 | 0.0379 |
| Amount of free cash flow | 0.025893 | 0.008355 | 3.099043 | 0.0020 |
| Operational risk | -0.000176 | 0.002624 | -0.067062 | 0.9466 |
| Determination coefficient | 0.023 | F-statistics | | 4.283 |
| Adjusted determination coefficient | 0.018 | Durbin-Watson | | 1.539 |

**Table 2.** Results of testing fifth sub-hypothesis

| Variable | Regression coefficient | Standard error | t-statistics | Significance level |
|---|---|---|---|---|
| Constant number | 1.100743 | 0.021943 | 50.16348 | 0.0000 |
| Capital structure | 0.184626 | 0.079238 | 2.330029 | 0.00202 |
| Determination coefficient | 0.01 | f-statistics | | 5.317(0.021) |
| Adjusted determination coefficient | 0.007 | Durbin-Watson | | 1.5 |

**Table 3.** Results of testing sixth sub-hypothesis

| Variable | R | SE | T | SIG. |
|---|---|---|---|---|
| Constant number | 0.840718 | 0.094916 | 8.857510 | 0.0000 |
| Amount of free cash flow | 0.024576 | 0.008318 | 2.954447 | 0.0033 |
| Determination coefficient | 0.016 | f-statistics | | 8.552(0.0036) |
| Adjusted determination coefficient | 0.014 | Durbin-Watson | | 1.5 |

**Table 4.** Results of testing seventh sub-hypothesis

| Variable | R | SE | T | SIG. |
|---|---|---|---|---|
| Constant number | 1.121486 | 0.020102 | 55.78895 | 0.0000 |
| Operational risk | -0.000535 | 0.002686 | -0.199126 | 0.8422 |
| Determination coefficient | 0.000 | f-statistics | 0.0388 (0.8438) | |
| Adjusted determination coefficient | 0.000 | Durbin-Watson | 1.5 | |

## DISCUSSION

In other hand, investors follow constantly companies' performance, so that they analyze constantly companies' performance for their decisions. The research surveys the relationship between independent variables (capital structure, amount of free cash flow and operational risk) and dependent variables (companies' performance). The summary of results is provided as follows:

**First Hypothesis:**

There is a significant relationship between capital structure and companies' performance. In statistical analysis of this hypothesis should be noted that regression coefficient of capital structure variable (0.185) is smaller than 5% and significant in error level of 5%. It implies that there is a significant positive relationship between capital structure and companies' performance. Hence H0 is rejected and H1 is supported with confidence higher than 95% which there is a significant relationship between capital structure and companies' performance. Determination coefficient indicated that capital structure could only determine 1% from changes of companies' performance. In analysis of this hypothesis should be noted that different definitions have been provided about capital structure which each of these definitions states an aspect of financing methods as capital structure. For example, capital structure is defined as balance between debts and assets, nature of assets and combination of borrow and it is a combination of common stock, preferred stock and subsets of related it which business unit uses them to finance. Capital structure of companies represents used long-term cash by company. Accordingly, it can be concluded that companies can increase company' performance via using its debts and stock equity and attract more investors. This hypothesis is an appropriate proxy for contributing to decision – makers to take appropriately decision. The result of this hypothesis is compatible with Namazi and Kermani (2008). They found that there is a significant positive relationship between capital structure and financial performance.

**Second Hypothesis:**

There is a significant relationship between free cash flow and company's performance.

In statistical analysis of this hypothesis should be noted that free cash flow can determine 1.6 percent from the changes of company' performance. The significance level of regression coefficient of amount of free cash flow (0.025) is smaller than 5% and significant. It implies that there is a significant positive relationship between company' performance and amount of free cash flow. In analysis of this hypothesis has been provided needed information about free cash flow and company's performance. The result of this hypothesis show that if free cash flow which represents amount of surplus cash of any company for investing, increase, the performance of company will increase and improve.

The result of this hypothesis is compatible with Arbabian and Safari Gerayeli (2009).

Third Hypothesis– there is a significant relationship between reduced operational risk and company's performance.

In statistical analysis of this hypothesis should be noted that regression coefficient of operational risk variable (-0.0005) is bigger than 5 % and not significant. Hence, there is not a significant relationship between operational risk and company' performance in error level of 5%. In analysis of this hypothesis should be noted that there is not a significant relationship between operational risk and company' performance. The result of this hypothesis is compatible with Kargi' research (2011). He found that there is a significant relationship between operational risk and financial performance.

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