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Original Article

Investigate the Relationship between Company Performance, Executive Compensation and Corporate Leverage of Companies Listed in Tehran Stock Exchange

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ABSTRACT

The aim of this study was to investigate the relationship between company performance, executive compensation and corporate leverage of companies listed on the Tehran Stock Exchange. The research methodology was conducted within the framework of Inductive-deductive reasoning, it means, theoretical fundamentals research history is by library studies, articles and Web sites in the form of inductive and collect information to confirm or reject the hypothesis in deductive form. The study population consisted of all companies listed on the Stock Exchange of Tehran. According to the official website of the Tehran Stock Exchange by the end of year 2013, all companies listed include 520 companies in 37 industry groups, respectively. The results of the first hypothesis showed that there is significant inverse relationship between Company performance and volatility of financial leverage. A negative coefficient for this variable (-0.2486) implies that there is an inverse relationship between firm performance and volatility of financial leverage. Based on the results of the second hypothesis, there are a significant and direct relationship between fluctuations executive compensation and corporate financial leverage. The positive coefficient for this variable (0.0010) suggests the existence of a direct link between executive compensation and corporate financial leverage volatility. The third hypothesis test results showed that there is a significant inverse relationship between the positive performance of executive compensation and corporate financial leverage fluctuations,. A negative coefficient for this variable (-0.0010) indicate an inverse relationship between positive performance due to executive compensation and corporate financial leverage volatility.

Introduction

Managers are always looking to get the reward for high performance. In order to compensate for creativity and innovation in finding and employing management practices and newer and better working methods, organization give often reward to management (Kapopoulos and Lazaritus, 2007). Based-rewards

Performance of managers is considered by researchers and in this context, evaluation of the company's strategy could also be considered as a factor for accurate estimation of the performance. Often rewarded for doing tasks at a higher level than the normal standard of work carried out (Huang and Song, 2006).

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So overall financial leverage of companies is affected by the amount of capital required and the structure of financing sources (Bunker et al., 2009). Debt and equity are the two staple ingredients of capital structure. According to sources of financing, companies have different return and risk in the capital preparing markets (Graham et al., 2004). Therefore, decisions regarding to capital structure play an important role in the efficiency and credibility of the Companies of funded institutions (Murphy, 2000). Nikbakht et al. (2010) examined the impact of board characteristics (board size, the proportion of non-executive members on the Board, the number of board meetings, financial literacy of board members and the separation of the role of CEO from chairman) on performance of the company .

In this research, ranking of the performance of companies is calculated based on five factors like income growth, net profit growth , return on assets and return on equity, as well as company size and financial leverage is considered as the control variable. In this study, they were examined 71 companies in the period from 2000 to 2008. The results showed that the board of directors in Iranian capital market efficiently not fulfilled its obligations to reduce Representation problems and do not have a significant impact on the company performance.

Drew et al. (2013), in a study titled "selective performance, executive compensation and corporate leverage" examined the relation between decisions related to the company's financial leverage and the characteristics of their executive compensation plans. Their results showed that different models at the same time strongly reflects the company's high level when use of the basis the return on equity for calculation of executive compensation or for calculating performance of the company. It means, the ROA is a good basis for the calculation of executive compensation.

Song (2009) investigated the relationship between financial leverage and investment opportunities for Chinese companies. In this study, four different ratios are used to measure financial leverage. Findings summary suggest that companies that have more growth than less leveraged, as well as larger companies have incurred more debt for investment than smaller companies. So, the main goal of our research is to investigate the relationship between company performance, executive compensation and corporate leverage in the companies listed on the Tehran Stock Exchange.

Research hypotheses

First hypothesis: there is a significant relationship between companies' performance and volatility of financial leverage.

The second hypothesis: there is a significant relationship between executive compensation and firm financial leverage fluctuations.

The third hypothesis: there is a significant relationship between the positive performance of executive compensation and firm financial leverage fluctuations.

Research Methodology

The research method is in the framework of inductive-deductive reasoning. Statistical population is consisted of all companies listed on the Stock Exchange of Tehran. According to the official website of the Tehran Stock Exchange by the end of year 2013, all companies listed include 520 companies in 37 industry groups, respectively. Descriptive statistics, data analysis is done using measures of central tendency such as mean, median and dispersion indices of standard deviation like skewness and kurtosis. Brief descriptive statistics of the model variables after removing the outliers screening by SPSS 20 software is given in Table 1.

Results

First hypothesis

The first hypothesis test purpose is studying the relationship between corporate performance and volatility of financial leverage and statistical hypothesis is defined as follows:

H0: there is no significant relationship between the company's performance and volatility of financial leverage.

H1: there is a significant relationship between corporate performance and volatility of financial leverage.

According to the results of the Chow test and P-Value (0.0273), hypothesis H0 of test is rejected at 95 % and indicates that can be used the panel data method. Also according to Hausman test, and P-Value of (0.0492), which is less than 0.05, hypotheses H0 of the test accepted at 95 % confidence level and hypotheses H1 is rejected. Therefore, is need to the model is estimated using fixed effects methods (Table 1).

Table1: Results of Chow and Hausman test

P-Value	Degrees of freedom	Statistic value	Statistic	number	Test
0.0273	(103.512)	1.3574	F	624	Chow
0.0492	8	8.9299	χ^2	624	Hausman

To test the normality of error terms, it can be used of various tests. One of these tests is Jarque and Bera test, that at this test, this test has been used. Jarque and Bera test results show that residues of research estimation model at 95 % confidence level have normal distribution , so that the probability of this test (0.8395) is larger than 0.05.

Another statistical assumption of the classical regression is residuals variance consistency. If the variances are unbiased, the estimator is non- linear and has not the least variance. At this study is used Breusch–Pagan test for homogeneity of variance. Considering the importance of this test, which is smaller than 0.5 (0.0385), the null hypothesis (consistency of variance) is rejected and it can be said that model has problem of variance

heterogeneity. In this study, to fix this problem in estimating, it is used generalized least squares estimating method (GLS). Also in this study to test the residuals are not correlated, that is one of the assumptions of regression analysis and called autocorrelation it is used the Durbin -Watson (D-W).

According to preliminary results of model estimation, Durbin-Watson statistic amount equal to 2.37, so that it is between 1.5 and 2.5, since we can conclude that the residuals are independent. In addition, to test whether model has linear regression and whether the model is regulated view of being linear and non -linear explanation, encryption test is applied. Due to the level of a symbolic test (0.6517) is larger than 0.05, so the null hypothesis of this test is verified that express the model is linear and the model has not correction error (Table2).

Table 2: Results of tests related to the model statistic assumptions

Ramsey statistic		Durbin-Watson statistic	Breusch-Pagan statistic		Jarque-Bera statistic	
<i>P-Value</i>	<i>F</i>	D	<i>P-Value</i>	<i>F</i>	<i>P-Value</i>	χ^2
0.6517	7.5852	2.37	0.0385	4.8630	0.8395	1.8434

In reviewing coefficient being significant according to the results presented in Table 3, Since the probability of t - statistic for variable coefficient of company performance is less than 0.05 (0.0394) , so, having a significant relationship between company's performance and fluctuations in the company's financial leverage at 95% is confirmed. Hence, the first hypothesis is accepted and can say with 95% confidence that there is a significant inverse relationship between corporate performance and volatility of financial leverage of companies.

Having a negative coefficient for this variable (-0.2486) implies the existence of an inverse relationship between firm performance and volatility of financial leverage, so that, by increasing by 1 unit of company's performance, financial leverage volatility also fell in 0.2486. Thus, according to the analysis made in connection with the

first hypothesis can be concluded that there is significant inverse relationship the company's performance and volatility of financial leverage.

Table 3: results of the first hypothesis test by using fixed effects method

The dependent variable : volatility of financial leverage Views : 624 years - company				
relation	P-Value	t of statistic	coefficient	Variable
Positive	0.0000	17.7048	0.1632	Fixed component
Negative	0.0394	-1.8442	-0.2486	company's performance
Positive	0.0167	1.7540	0.0010	Executive compensation
Negative	0.0237	-1.01400	-0.0010	The positive performance of executive compensation
meaningless	0.8473	2.5754	0.0011	size of the company
Positive	0.0163	1.7854	0.0359	Company growth rate
meaningless	0.0751	0.5609	0.0002	Stock returns
Negative	0.0224	-1.5648	-0.0004	Cash flow ratio
Positive	0.0319	1.9456	0.5837	The proportion of institutional Shareholders ownership
0.8513	Determining model coefficient			
218.88008 0.0000	F ($P-Value$)			

The second hypothesis test results

The purpose of the second hypothesis of this study is whether there is a significant relationship or not between executive compensation and financial leverage volatility? And statistical hypothesis is expressed as follows:

H0: there is no significant relationship between executive compensation and financial leverage volatility.

H1: there is a significant relationship between executive compensation and in the company's financial leverage volatility.

In reviewing being significant of coefficient according to the results presented in Table 3, since the probability coefficient t-statistic for remuneration variable coefficient of companies executive directors is smaller than 0.05 (0.0167) , resulting in a confirmation significant relationship between executive compensation and Fluctuations in the company's financial leverage at the level of 95%. Thus, the second hypothesis is accepted and can say there was a straight significant relationship with 95% confidence between executive compensation and corporate financial leverage. The positive coefficient for this variable (0.0010) suggests the existence of a direct link between executive compensation and corporate financial leverage fluctuations so that raising 1 unit executive compensation, fluctuations increase as

well as the unit 0.0010 in the Company's financial leverage. Thus, according to the analysis made in connection with the second hypothesis can be concluded that there is a direct significant relationship between executive compensation and financial leverage.

The third hypothesis test results

In the third hypothesis are examined the positive performance of the relationship between executive compensation and corporate financial leverage fluctuations and statistical hypothesis and it is expressed as follows:

H0: there is no significant relationship between the positive performance of executive compensation and fluctuations in the company's financial leverage.

H1: there is significant relationship between the positive performance of executive compensation and fluctuations in the company's financial leverage.

In Reviewing being significant of coefficient in the results presented in Table 3, since the probability of t -statistic for variable coefficient of positive performance of corporate executives, is smaller than 0.05 (0.0237), resulting in a significant relationship confirmation between performance positive of executive compensation and corporate financial leverage at the level of 95%.

Thus, the third hypothesis is accepted and it can be said with 95 % that there is significant inverse relationship between the positive performance of executive compensation and fluctuations in the Company's financial leverage. Being negative coefficient for this variable (-0.0010) implies the existence of an inverse relationship between executive compensation and fluctuations of the company's financial leverage, so that, by rising 1 unit positive performance of executive compensation, financial leverage swings of companies have reduced the unit 0.0010. Thus, according to the analysis made in connection with approved third hypothesis can be concluded that there are significant inverse relationship between the positive performance of executive compensation and fluctuations in the company's financial leverage.

Discussion and Conclusion

The main objective of this study was to investigate the relationship between company performance, executive compensation and corporate leverage of the companies listed on the Tehran Stock Exchange.

The first hypothesis test results since the probability of t-statistic for variable coefficient of company performance is less than 0.05 (0.0394), showed that significant relationship between corporate performance and volatility of financial leverage at 95 % is approved. The first hypothesis is accepted and can say with 95% confidence; there is a significant inverse relationship between corporate performance and volatility of financial leverage. A negative coefficient for this variable (-0.2486) implies the existence of an inverse relationship between firm performance and volatility of financial leverage, so that by increasing 1 unit of the company's performance, financial leverage volatility also reduced in 0.2486 units. Thus, according to the analysis made in connection with the first hypothesis can be concluded that there is significant inverse relationship between the company's performance and volatility of financial leverage.

Test results of the second hypothesis showed that, since the probability t-statistic for remuneration variable coefficient of the executive directors of companies is smaller than 0.05 (0.0167), so, having a significant relationship between executive compensation and corporate financial leverage fluctuations in the level of confidence 95% is confirmed . The second hypothesis is accepted and can say with 95% confidence there was a significant relationship between executive compensation and corporate financial leverage volatility.

The positive coefficient for this variable (0.0010) suggests the existence of a direct link between executive compensation and corporate financial leverage fluctuations, so that by rising 1 unit executive compensation, fluctuations in the Company's financial leverage as well as increase the unit of 0.0010. Thus, according to the analysis made in connection with the second hypothesis can be concluded that there is a significant relationship between executive compensation and company financial leverage.

Test results of the third hypothesis showed that, since the probability t-statistic for remuneration variable coefficient of the executive directors of companies is smaller than 0.05 (0.0237), so, having a significant relationship between positive performance of corporate executives and corporate financial leverage fluctuations in the level of confidence 95% is confirmed.

The third hypothesis is accepted and can say with 95 % that there is significant inverse relationship the positive performance of executive compensation and fluctuations in the Company's financial leverage.

A negative coefficient for this variable (-0.0010) implies the existence of an inverse relationship between the positive performance of executive compensation and fluctuations in the Company's financial leverage, so that by increasing 1 unit of the positive performance of executive compensation, financial leverage volatility also reduced in 0.0010 units. Thus, according to the analysis made in connection with the third hypothesis can be concluded that there is significant inverse relationship between positive performance of executive compensation and volatility of financial leverage.

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