INVESTIGATING THE EFFECT OF THE CEO TURNOVER ON THE COMPANY'S INVESTMENT STRATEGY AND THE FINAL VALUE OF INVESTMENT

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ABSTRACT: *Companies, through minimizing agency issues and information asymmetry, take efficient capital budgeting decisions. To solve agency issue and information asymmetry, the Board members play the role of supervisors who are usually monitoring senior executives, confirming the company's strategy, and monitoring control system. According to the important roles that managers play in the company, in this study, the effects of CEO change on the company's investment strategy and the ultimate value of investments are investigated. So, the financial information of 115 companies listed on Tehran Stock Exchange, has been extracted and reviewed as the sample using the systematic elimination, during the period 2009 to 2013. Regarding the aim, the research is an applied one and the correlation method is used. Also, regarding the time, the investigation is a post-event study. Statistical analysis was done, using statistical software Eviews at 95 percent confidence level; to test the hypotheses, panel data statistical method and linear regression model were used. Empirical evidence from testing the hypotheses suggests that there is a direct and significant correlation between changing the CEO and the company's investment in advertising and fixed assets. Also, there is an inverse and significant correlation between changing the CEO and investment of firm in liquidity and the final value of investments.*

Keywords: CEO Change, Final value of Investments, Investments in Advertising, Investment in Fixed Assets, Investments in Cash

INTRODUCTION

The corporate governance system includes processes for strategic system of the company's efforts in order to produce value for shareholders. It is considered as a mechanism to protect the interests of all claimants and beneficiaries of the company's individual and group [5]. The main source of the emergence of corporate governance mechanisms is the conflict arising from the formation of the agency relationship. According to Jensen and Mecking [7], an agency relationship in which one or more persons representing the owner appointed another person as his representative or agent and delegated to him the decision-making authority. An agency relationship has costs such as the costs of owners' monitoring of the agent' performance, remained losses and other necessary costs. Board members are one of the pillars of governance in today's companies that are considered as an executive lever of corporate governance principles and responsible for monitoring and policy making in companies. Board members are usually elected by the stock owners. The board members often include a group of individuals who have the right of monitoring, supervising and making macroeconomic policies and having sovereignty over a particular company. This group of people (in the form of an effective team work) must guarantee the corporate's health in a variety of areas such as the proper financial performance of the companies, the legality of actions, the appropriateness of the processes and taken steps with the strategic objectives of the company [9].

This research aims to investigate the effects of CEO change on the company's investment strategy and the ultimate values of investments in companies listed on Tehran Stock Exchange.

THEORETICAL FRAMEWORK

Investment is the most volatile component of total expenditure which is discussed in macroeconomics debates [2]. The investment is in fact a process in which capital goods are used to produce goods or services [14]. In fact, the investment is enhancement of goods stock and capital and manufacturing facilities of a community. Communities should mobilize their savings for investment. They shouldn't consume all their current productive capacities in order to provide more manufacturing opportunities and having more consumer facilities in the future [13].

Investment study is important for a dual role that plays in the economy. On one hand, the investment involved in a large part of the total costs which has a significant effect on demand and on the other hand, it plays an important role in the supply and production, because it represents an increase of capital investment [10]. In this study, the investment strategies are defined as the tripartite of companies' investment in the advertising, liquidity and fixed assets. The impact of CEO change on each of these investment strategies will be examined. The CEO change in this study means changing the current CEO of the company in the year under study.

The tompanies' investment is affected by several factors. One factor is the company's cash flow and the amount of available funds to finance new projects. Financing new investments in the company somehow are affected by management decisions, but generally it seems that the higher cash flow will lead to the higher rate of investments in the company. It can be inferred that the company's available financial resources, is an important factor in investment. When strong fluctuations in cash flows arise, managers of profitable units have to adjust their investment policies [8].

When a company has motivated managers by supervising concerns, the agency problems should be minimized and the effective use of resources would be possible. Finally, a company that has a minimum agency cost and problems of information asymmetry has more efficient capital budgeting decisions[4].

CEO change may reduce problems of information asymmetry and thus it is associated with discrete changes in the inner performance of the company. By intensifying agency problems and information asymmetries, CEO will predict his imminent departure from the company and in the short term it will increase the efficiency of managing director and it will raise the quality of corporate capital budgeting decisions [1]. CEO change has effect on the stock market reaction and the efficiency of the company's investment. Thus, when the CEO with a good record and reputation changes, the negative returns after the change are predictable. The announcement of the change is considered as a bad news which has the negative reaction of the market to the stock consequently. Inversely, when the CEO with a bad record and reputation changes, the positive returns after the change are predictable. The announcement of the change is considered as good news. Therefore, the expected increase in stocks was not unexpected [11]. According to the above arguments, CEO change has effect on companies' investment.

RESEARCH HYPOTHESES

The first hypothesis: CEO change has an effect on the company's investment in advertising.The second hypothesis: CEO change has an effect on the company's investment in liquidity.The third hypothesis: CEO change has an effect on the company's investment in fixed assets.The fourth hypothesis: CEO change has an effect on the company's investment in the final value of investment.

RESEARCH METHODOLOGY

The research methodology is descriptive and correlational. This study examines the relationship between variables and tries to prove this relationship in the current situation which is based on historical data. Therefore, it can be classified as post- event study. In these studies, researchers examined the cause and effect (dependent variable and the independent variable) after the event. The variables are not manipulated. This study is applied one. Research data were collected from Rahavarde Novin database software and the website of the Stock Exchange Market.

RESEARCH SAMPLE

The research sample consisted of all firms listed in the Tehran Stock Exchange. In this study, a systematic elimination method is used in order to represent a proper sample among the statistical population. For this purpose, the following five criteria are considered. If the company has met all the criteria, it will be selected as a research sample and the rest companies are deleted. The selection process is presented in Table 1.

After considering all of the above criteria, 115 companies remain as a screened community which all of them are selected as a sample.

RESEARCH VARIABLES AND THEIR MEASUREMENTS

The dependent variables:

Advertising : The ratio of advertising to the total expenditure and sales (companies advertising Costs can be extracted from the attached notes to the financial statements).

Liquidity : The Company's liquidity, which is achieved from the ratio of cash balance to total assets:

PPE : Net ratio of fixed assets to total assets

Marginal q : The final value of the investment company that obtained from the following equation.

$$\frac{\Delta V_{i,t}}{A_{i,t-1}} = \beta_{0,i} + \beta_{1,i}\frac{\Delta A_{i,t}}{A_{i,t-1}} + \beta_{2,i}\frac{V_{i,t-1}}{A_{i,t-1}} + \beta_{3,i}\frac{D_{i,t-1}}{A_{i,t-1}} + \delta_t P_t + u_{i,t}$$

Table 1-3) selection process

The total number of companies listed at the end of 2013	(478)
Benchmarks:	
The number of companies that have not been active in the stock exchange in the period 2006-2013	(159)
The number of companies listed in the stock exchange after 2006	(46)
The number of companies that are part of the holding, investment, financial intermediation, banks or have been leasing	(42)
The number of companies that change the fiscal year in the period 2006-2013 or their fiscal year has not ended in March	(61)
The number of companies that have interrupted the trading more than 6 months	(55)
The number of companies that their information is not available in the period 2006-2013	-
The number of samples companies	115

Table 2) descriptive variables

Variable	Observation	Average	Standard deviation	Min	Max	Skewness	kurtosis
Advertising	571	0.0498	0.0907	0.0000	0.7418	3.753	21.911
Liquidity	571	0.0433	0.0409	0.0006	0.2489	2.034	8.003
PPE	571	0.2249	0.1646	0.0037	0.8385	1.394	4.983
Marginal q	571	2.1499	12.6911	-76.902	80.080	-0.170	14.930
Tenure CEO	571	0.2872	0.4528	0	1	0.940	1.884
Board size	571	1.6077	0.0385	1.0986	1.9459	-7.489	124.24
Independence	571	0.6661	0.1815	01	1	-0.460	3.365
Leverage	571	0.6135	0.1872	0.0964	1.3023	0.018	3.337

V : The Company's market value is obtained by multiplying the number of shares in the market value per share.

A : Total assets

D : Financing costs, which are obtained from the total dividends plus interest expense, divided by the total assets.

P : Reflecting the long-term fixed-effects regression in order to control macro-economic changes.

After fitting the above model, the coefficients (β) is considered as the ultimate value of investments in companies and in the fourth hypothesis tested.

The independent variable:

Tenure CEOi: It is a virtual variable. If the CEO has changed in the particular year its value is 1, otherwise, zero.

Research Control Variables:

Board sizei : Board size ,which is calculated through the natural logarithm of the number of the Board members.

Independence : The independence of the board which is obtained from the ratio of outside board members divided by total members.

Leverage : Financial Leverage

Variables' descriptive statistics:

After the screening and removing outliers' data,

Variables descriptive statistics Summary are presented in Table 2.

According to the Table 2, the average rate of corporate investment in advertising was 0.0498. It was calculated through the ratio of advertising expenditure to total public, administrative and selling costs. It shows that 4.98 percent of general expenses on average include general, administrative and selling expenses of sample companies in their advertising investment. Investigating skewness and kurtosis variable indicates that the data does not have a normal distribution, so that skewness and kurtosis were equal to 3.753 and 21.911 respectively.

The average companies' investment in liquidity which is obtained through the ratio of cash balances to total assets is equal to 0.0433. It indicates that 4.33 percent of total assets of sample companies consist of the liquidity. Based on the amount of skewness (2.034) and kurtosis (8.003), they did not have a normal distribution. An average skewness and kurtosis of company's investment in fixed assets indicates that data does not have a normal distribution. The skewness and kurtosis are equal to 1.394 is equal to 4.983.

An average of the final value of the investment in sample companies was measured through Abigale approach [1] which was 2.146. Regarding to the amount of skewness (-0.170) and kurtosis (14.930)[12]. It can be said that the final value of the investment variable does not have a normal distribution.

Based on the descriptive statistics for CEO change variable, at 28.72 percent of the observations CEO change was occurred in the companies, but there was no CEO change in the 71.28% of the observations.

Testing dependent variable normal distribution

In this study, this test has been studied through Jarque-Bera statistics. The results of the Jarque-Bera test for dependent variables are presented in Table 3.

Since the statistical significance of Jarque-Bera for all four dependent variables is less than 0.05 (0.0000). It shows that these variables do not have a normal distribution. In this study, to normalize the data, Johnson transfer function is used. The results of the Jarque-Bera test after data normalising are presented in Table 4.

The results of the research hypotheses testing

First Hypothesis Testing results

To test this hypothesis, the model number (1) is used:

Model No. (1)

$$Advertising_{i,t}=\beta_0+\beta_1\ Tenure\ CEO_{i,t}+\beta_2\ Board\ size_{i,t}+\beta_3\ Independence_{i,t}+\beta_4\ Leverage_{i,t}+\epsilon_{i,t}$$

In this model, in order to determine whether the use of panel data model will be efficient or not the F-Limer test was applied. In order to determine which method (fixed effects or random-effects) is more appropriate for estimation, the Hausman test is used. The results of the tests are presented in Table

According to the results of the F -Limer test, since the P-Value of the test is less than 0.05 (0.0000), the sameness of origin is rejected and the data panel method is used. According to the results of the Hausman test, since the P-Value test is less than 0.05 (0.036), therefore the fixed effects model should be used in the estimation. Table (6) shows the results of the model (1) estimation.

In examining the overall significance of the model, since the probability value (P-VALUE) of the F- statistic is the smaller than 0.05 (0,0000), the overall significance of the model is verified with 95% confidence level. The model coefficient determination suggests that 88.93 percent of variable changes of the ratio of advertising costs to the total general costs are explained in the model.

Table 3) test results of the dependent variables' normal distribution

variable	Jarque-Bera	Significant level
Advertising	10035.43	0.000
Liquidity	1132.843	0.000
PPE	284.693	0.000
Marginal q	3381.539	0.000

Table 4) results of the dependent variables normalizing test after the normalization process

variable	Jarque-Bera	Significant level
Advertising	0.888	0.641
Liquidity	2.964	0.227
PPE	1.439	0.486
Marginal q	0.813	0.665

Table 5) Results of the model selection for the model (1) estimation

Tests type	*Test statistic*	*Test statistic value*	*Freedom level*	*P-Value*	*result*
F-limer test	F	25.034	(456،114)	0.0000	*panel*
Hausman test	χ^2	16.986	4	*0.036*	*Fixed effects*

Table 6) The results of the research model (1)

The dependent variable: ratio of the cost of advertising to the general public spending and selling

Views: 460 company-year

variable	*coefficient*	*statistic t*	*P-Value*	*VIF*
C	0.066	9.061	0.000	-
TENURE_CEO	0.0006	2.0118	0.044	0.012
BOARD_SIZE	-0.013	-3.034	0.0025	1.018
INDEPENDENCE	0.009	5.736	0.000	1.089
LEVERAGE	-0.001	-0.903	0.367	1.093
Coefficient determination	0.8893			
F model statistic	40.103	*Jarque-Bera statistic*	0.848	
P-Value	0.0000	*P-Value*	0.654	
Statistic Breusch-Pagan	0.473	*Durbin-Watson statistic*	1.834	
P-Value	0.754			

Through investigating the statistical assumptions of the model, the results of the Jarque-Bera test indicate that residues of the estimated model has 95% of the normal distribution so that, the probability of this test is larger than 0.05 (0.654). To test the consistency of the residual variance Breusch-Pagan statistical method is used. Due to the fact that the probability value (P-VALUE) related to the Breusch-Pagan is more than 0.05 (0.754) in which the consistency of the residual model variance is approved. In addition, since the amount of Durbin- Watson statistic is between 1.5 and 2.5 (1.834), the independence of the resudals model is confirmed. The co-linearity between variables as well as the value of the VIF statistics for all variables is less than 5. It can be inferred that there is no strong co-linearity between them and this assumption from the classical regression assumptions is confirmed.

According to the results presented in Table 6 model, the probability of the t-statistic for the variable TENURE_CEO (Director Change) is smaller than 0.05 (0.0441) and the coefficient is positive (0.0006). In conclusion, there is a significant direct relationship between CEO change and corporate's investment in advertising. The first hypothesis is confirmed at 95 percent confidence level. The results of the first hypothesis are consistent with those of Abigale [1].

Second Hypothesis Testing Results

To test this hypothesis, the model number (2) is used:

Model No. (2)

$$Liquidity_{i,t}=\beta_0+\beta_1\ Tenure\ CEO_{i,t}+\beta_2\ Board\ size_{i,t}+\beta_3\ Independence_{i,t}+\beta_4\ Leverage_{i,t}+€_{i,t}$$

Table 7) Results of the model selection for the model (2) measurement

Tests type	*Test statistic*	*Test statistic value*	*Freedom level*	*P-Value*	*result*
F-limer test	F	25.034	114.456	0.0000	*Panel*
Hausman test	χ^2	16.986	4	*0.036*	*Fixed effects*

In Table 8 the results of the model (2) is provided.

Table 8) the results of the research model selection, model (2)

The dependent variable: companies' investment in liquidity Views: 574 companies-year				
variable	*coefficient*	*statistic t*	*P-Value*	*VIF*
C	0.066	9.061	0.000	-
TENURE_CEO	0.0006	2.0118	0.044	0.012
BOARD_SIZE	-0.013	-3.034	0.0025	1.018
INDEPENDENCE	0.009	5.736	0.000	1.085
LEVERAGE	-0.001	-0.903	0.367	1.093
Coefficient determination 0.8893				
F model statistic (P-Value)	40.103 0.0000	*Jarque-Bera statistic* *)P-Value(*	0.848 0.654	
Statistic Breusch-Pagan (P-Value)	0.473 0.754	*Durbin-Watson statistic*	1.834	

Table 9) The results of the research model selection, model (2)

Tests type	*Test statistic*	*Test statistic value*	*Freedom level*	*P-Value*	*Result*
F-limer test	F	25.034	114.456	0.0000	*Panel*
Hausman test	χ^2	16.986	4	0.036	*Fixed effects*

In Table 10 the results of the model (3) is provided.

Table 10) the results of the research model (2) measurement

The dependent variable: companies' investment in fixed assets Views: 572 companies-year				
variable	*coefficient*	*statistic t*	*P-Value*	*VIF*
C	0.066	9.061	0.000	-
TENURE_CEO	0.0006	2.0118	0.044	0.012
BOARD_SIZE	-0.013	-3.034	0.0025	1.018
INDEPENDENCE	0.009	5.736	0.000	1.085
LEVERAGE	-0.001	-0.903	0.367	1.093
Coefficient determination 0.8893				
F model statistic (P-Value)	40.103 0.0000	*Jarque-Bera statistic* *)P-Value(*	0.848 0.654	
statistic Breusch-Pagan (P-Value)	0.473 0.754	*Durbin-Watson statistic*	1.834	

Table 11) The results of the research model selection, model (4)

Tests type	*Test statistic*	*Test statistic value*	*Freedom level*	*P-Value*	*Result*
F-limer test	F	25.034	114.456	0.0000	*Panel*
Hausman test	χ^2	16.986	4	0.036	*Fixed effects*

In Table 12 the results of the model (4) is provided.

Table 12) the results of the research model (4) measurement

The dependent variable: final value of investment Views: 572 companies-year				
variable	*coefficient*	*statistic t*	*P-Value*	*VIF*
C	0.066	9.061	0.000	-
TENURE_CEO	0.0006	2.0118	0.044	0.012
BOARD_SIZE	-0.013	-3.034	0.0025	1.018
INDEPENDENCE	0.009	5.736	0.000	1.085
LEVERAGE	-0.001	-0.903	0.367	1.093
Coefficient determination 0.8893				
F model statistic (P-Value)	40.103 0.0000	*Jarque-Bera statistic* *)P-Value(*	0.848 0.654	
Statistic Breusch-Pagan (P-Value)	0.473 0.754	*Durbin-Watson statistic*	1.834	

According to the results presented in Table of estimated model, the probability of the t-statistic for the variable TENURE_CEO (Director Change) is smaller than 0.05 and the coefficient is negative (-0.0019). In conclusion, there is an inverse significant relationship between CEO change and corporate's investment in liquidity. Therefore, the second hypothesis is confirmed at 95 percent confidence level. The results of the second hypothesis is consistent with Abigale [1]research.

Third Hypothesis Testing Results

To test this hypothesis, the model number (3) is used.

Model No. (3)

$$PPE_{i,t}=\beta_0+ \beta_1 \ Tenure\ CEO_{i,t} + \beta_2 \ Board\ size_{i,t} + \beta_3 \ Independence_{i,t}+ \beta_4 \ Leverage_{i,t} +€_{i,t}$$

According to the results presented in table of estimated model, the probability of the t-statistic for the variable TENURE_CEO (Director Change) is smaller than 0.05(0.0000) and the coefficient is positive (-0.0019). Consequently, there is a positive significant relationship between CEO change and corporate's investment in fixed assets. Therefore, the third hypothesis is confirmed at 95 percent confidence level. The results of the third hypothesis are consistent with those of Abigale[1].

Fourth Hypothesis Testing Results

To test this hypothesis, the model number (4) is used.

Model No. (4)

$$Marginal\ q_{i,t} =\beta_0+ \beta_1 \ Tenure\ CEO_{i,t} + \beta_2 \ Board\ size_{i,t} + \beta_3 \ Independence_{i,t}+ \beta_4 \ Leverage_{i,t} +€_{i,t}$$

According to the results presented in table of estimated model, the probability of the t-statistic for the variable TENURE_CEO (Director Change) is smaller than 0.05(0.0375) and the coefficient is negative (-0.2263). Consequently, there is an inverse significant relationship between CEO change and final value of the investment. Therefore, the fourth hypothesis is confirmed at 95 percent of confidence level. The results of the fourth hypothesis are consistent with those of Abigale [1].

CONCLUSION

In this study, the effect of changing CEO on the investment strategies of companies and the value of investments was investigated. In this regard, four hypotheses and the financial data of 115 companies listed on the Tehran Stock Exchange were analyzed during the period of 2009 to 2013.

The results of the first hypothesis testing showed that, CEO's Change has an effect on the company's investment in advertising. It could be argued that the new CEO spent a lot of costs in advertising due to their new arrival to the company.

The second hypothesis testing results also showed a significant inverse relationship between CEO change and the firm's investment in liquidity. It seems that the new CEO should carefully evaluate the conditions and possibilities of the company and then invest in a proper and efficient planning. During this period the company's capital cash will remain stagnant. As a result, the inverse relationship is not unexpected.

According to the findings of the third hypothesis testing, by changing the CEO, the firm's investment increased in fixed assets. It could be argued that the new CEO should carefully evaluate the conditions and possibilities of the company and then invest in a proper and efficient planning in order to develop the infrastructure (fixed assets) of enterprise. The fourth hypothesis test results showed that there is a significant inverse relationship between CEO change and the final value of investments. When the CEO changes, market participants consider it as a bad news and the market show a negative reaction to the stock.

According to the results it is suggested that, companies' actual and potential shareholders and users of financial information pay attention to the CEO change as an effective mechanism companies investment decisions. Also it is recommended to the company's actual and potential shareholders and investors who taking their fixed assets as a secure guarantee for their own investments, to consider CEO's change as increasing factor for companies fixed assets.

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