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Effective Factors on Agency Cost, Where is the Capital Structure?

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ABSTRACT

Related information to agency cost of companies helps to managers and investors to make better decisions to achieve the company's goal. The problem about the agency cost is to encourage the agent to take decisions which are lead to the welfare of owner(S). With the formation of agency relation, agency cost is created by conflicts of interest between parties. If the costs be lower, the company's performance will be better. The type of capital structure is one of the factors that can be effective on the agency costs. In this research, it is tried to investigate the relation between agency cost and capital structure. For this purpose, after collecting information and necessary data; the sample companies are calculated and the relation between agency cost and capital structure and other research control variables are measured by using Pearson's correlation coefficient. After test (T) in confidence level of 95%, to determine the significance, correlation relation is used for above criteria. The results indicate that debt ratio has a negative and significant relation with agency cost. Among control variables, return, profit, and stock has a positive and significant relation with cost agency and book value than market value has a significant and negative relation with agency cost
KEYWORDS: Agency theory, agency cost, capital structure, financial leverage.

I. INTRODUCTION

The risk of fractures and low debt ratio means a reduction in the value of company. So, the company accepts more debt since the risk of fractures is balanced with the profits of increasing company value and there is another explanation that why the financial structure of company is important, it is argued that mangers pursue goals such as their wealth that these goals are in conflict with the interest of business owner. This conflict creates brokerage fees and the cost of manager control to ensure of coordination of their performance with the interests of company's owner. [1] From the Jensen perspective, company's debt lead to increase pressure on management to create cash flows to pay costs of profits and this, in turn leads to reduction of agency costs. He argue that the managers of companies who are the shareholders of company spend the money of company in an inverse way of the shares for procedural costs, so, if the amount of director's share will be lower in company, the company value for investors out of the company are lower. [2] On the other hand, release of bonds increase the brokerage fee, so the owner managers in companies that they have too debt, they will tend to high-risk investment, if they win in this gambling, the owners will gain all the invest, and if they are a loser, they will bear a part of losses of bondholders. Controlling these managers increase the brokerage fee and reduce the company value. Based on the agency theory literature, the more use of debt in company's capital structure can be introduced as one of ways to reduce the agency costs. Because the more use of debts in capital structure of company can lead to reduce the need for financing through the interests of shareholders and this issue reduces the conflicts of interests between managers and shareholders. In this study, overall, the relation between type of capital structure and agency costs are investigated for these cost reductions.[3]

Among economic texts, capital structure is remembered as the most effective parameter in companies valuing among capital markets. [4] Changing environment and current variable depend the company ranking to their capital structure in terms of credit. This issue makes their strategic planning to the effective sources selection on the goal of "maximizing shareholder wealth". [5] So, the factors and effective fluid variables on capital structure can influence on profiting and efficiency of companies in the form of desired goal in the form of agency theory and in the theory if hierarchy effect. It is clear that a wave of financial management decision making in the field of agreement principle at the time of financing is considered as specific approach to modify the desired decisions according to the requirements of economic environment ad it is considered as a good model for growth and increasingly effectiveness of dominant thinking on company performance. According to agency theory, the structure of optimal capital is a point that all the agency costs of the company which are equal to the sum of agency costs related to debt and agency costs related to shares can reach to minimum. [6] Jensen says that increasing debt with reduction of cash flows to management can reduce the agency costs of free cash flows. The relation between managers and creditors is different from their relation with shareholders, the amount and time of original

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and subordinate of debt is obligated by managers, while they don't have a commit to distribute a certain amount of profit in pre-determined times to shareholders. McConnell & Servaes stated that increase in debt can lead to increase investment in projects with high risk to provide payments for interest expense. So, by increasing debt, the creditors will have more motivation to apply more supervision on management and reduction of agency costs. In this research, it is tried to investigate the relation between cost structures with agency costs.

II. LITERATURE REVIEW

In agency theory, company is considered as a legal entity that is the central point of a complex process and during it, a balance is created between conflict goals in a framework of contractual relations. To monitor on contracts with managers, we should spend costs that these costs can lead to reduction of manager's reward, so the managers have motivation to hold down the mentioned costs through lack of conflict with owners. The first problem related to agency is the conflict between shareholder and manager. [7] This is possible that manager don't act in line with the interests of shareholder. Shareholders can follow the manager's action daily to ensure that the decision by manager is in accordance with the interests of shareholders or not. This is so-called the information asymmetry and if from the shareholder side, there is not a method to control the manager's operation, only the manager knows that whether he take steps in line with the interests of shareholders, on the other hand, the manager has more information than mangers about the actions which should be done in the organization. This additional information of manager by agency is called "confidential information", the presence of confidential information increases the information asymmetry between shareholder and owner. [8] The next problem is the effects of "inappropriate choice", this happens when people tend to have a contract by having private information about what provide interest for them. It is possible that this problem creates in a relation framework between manager and shareholder and manager behave to transfer the incorrect and incomplete information to shareholder. The next problem is called "moral hazard", this problem occurs when agent is motivated by his personal interests to exit for the contract situations, because the he does not have the necessary information owner to implement contract and doing necessary actions by agent, the next problem is related to agency is that an insurance contract between shareholder and manager is concluded in a situation of uncertainty to the cases of future nature.[9] It means that contract is set usually in time "1" to perform operation, but end results may be the product or profit need to pass a financial period, during times "1" and "2", large events may occur that influence on final product or profit. In agency theory, this situation is classified into two factor groups of uncontrollable and controllable, so access to product or ultimate benefit is always based on probabilities. In fact, the basis of contract is the expected value not absolute profit, considering that manager is risk averse, he naturally tends to transfer a part of risk associated to uncontrollable factors to owner, it means that associate with risk should not occur. We can extend the agency problem between managers and owners to similar relations, for example, this problem may be explain between shareholders with control (majority) and minority shareholders or between shareholders and creditors. [10] The conflict in interests with control (majority and minority shareholders) may be due to this situation that control investors (majority) such as control managers can direct a part of company's resource toward the personal interests and to uncontrolled shareholders (minority).

Agency problem between creditors and shareholders cause because of the creditors of high profit companies take profit at most to the amount of debt contract form company profit, however in the event of bankruptcy, they have share in the loss of company regardless to the contract. And this asymmetry in financing through borrowing can lead to a preference for investors for investing in high-risk projects more than what is desirable for creditors, there are costs which are created from the conflict zone of managers and expectations of stakeholders and using motivational factors and using process and regulatory policies for shareholders. And they are considered as agency costs, so we can expect that the conflict of interest between investor companies typically exist, because the managers are not one hundred percent of owners.

So far, three measures for agency measuring are used.

1-Efficiency ratio

2-The number of acquired companies by company

3-The interaction between free cash flows and growth opportunities of company

The third group considers the agency cost as a function of interaction between free cash flows and company's growth opportunities. Jensen (1986) in free cash flow theory suggests that rather than distributing free cash flows among owners, managers tend to reinvest in the company, because payment to shareholder reduces the controlled resources by managers and reduce their power. However, this is likely due to the need to attract new funds by company will increase the capital market oversight, in other word, the accumulation of free cash flows can reduce the market power over management decisions managers tend to company growth more than its optimal size, because the company with increasing controlled resources of managers will follow increase if power and their rewards. Due to different goals of managers of the goals of owners, the presence of free cash flows in the company in excess to needed cash flow to financing new projects with positive net present value and it was lead to invest these resources with negative present value and finally it leads to create the loss potential of these resources. As a result, the companies with high free cash flow and growth and investment

opportunities have high agency costs. To measuring growth opportunities, we can use different criteria such as sale growth, operating profit growth, Tobin Q indicator and…. In this study, to measure the agency cists, the interaction between growth opportunities and free cash flows are used and in accordance with previous researches, Tobin Q index is used as a measure to measure the growth opportunities. [11] The task of each financial manager is to optimize the assets, debts, and shareholder's equity to maximize the wealth of shareholders. By changing in cases such as earning per share in future and present time, scheduling risk-term profitability, dividend policy and choosing the financial method on dividend, the financial manager can influence on shareholder wealth. Financial resources of each economic unit are formed by internal and external sources. [12] Internal resources include cash flows obtained from operations and obtained funds by sale pf assets and external sources and borrowing from financial markets and new equity. In each economic unit, the available funds spent for issues such as pay dividends, repay debt, investment in new fixed assets and increasing working capital. If the variations in working capital items are negative, additional resource needed through external resources or selling part of assets of the economic entity. [13]

If this number is positive, the excess amount spent of debt, new investment or increases the dividend payment. The purpose of determining capital structure is to determining the composition of financial resources to maximize the wealth of shareholders. [14] The capital structure is loosely related with the cost of capital. The capital structure the composition of long-term cash resources is used by economic unity. And changes in it can lead to change in the capital cost of economic unit, the main objective of the capital structure decisions is to create a right mix of long-term cash resource in order to minimize the cost of economic unit and thereby, maximizing the market value of economic unit. It is clear that capital cost does not mean to usual cost in accounting, but it is the return value which is proposed of long-term investment, however this minimum rate is expected, from the perspective of Jehn & Poulsen (1989), free cash flow is equal to operating profit before depreciation and after deduction for tax payments, interest payments, dividend paid to common and preferred shareholders. In this study, Jehn and Poulsen model is used to measure the free cash flows of business unit, accordingly the model of LIVE free cash flow is obtained from operating profit before taxes and deduction the total taxes with expenses and dividend and it can be standardized with division on total expenses.

III. METHODS

A. Overview

In this study, after collecting related data, Excel spreadsheet software was used to classify the data and calculated variables and finally, obtained information was analyzed by using SPSS software, the research method is correlation. For conducting the statistical tests, the Pearson correlation coefficient and variance analysis which has lower standard error in compare with other statistical methods. Research population of the present research includes all listed companies in the Iran Capital market during 2010-2013. To select the sample, the following focuses are applied on the companies of statistical population. If the years ends to 29 March. During the time period of research, there should not be a change of fiscal year. Required information of company is available in the investigated duration and it should not be among losing financial years, since to calculate the Tobin Q indicator, we need to determine the market value, so the market shares during March, every year, at least once a transaction should be done. Based on above conditions, a targeted and systematic sample of 89 listed companies were in Capital market of Iran.

B. The Conceptual model

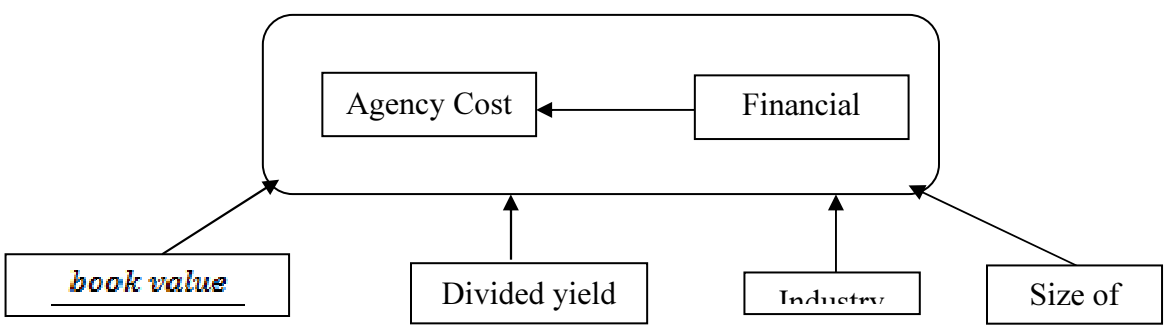

Figure (1): The conceptual model

C. The statistical model

$$AGENCY_i = =\beta_0 + \beta_1 LEV + \beta_2 SIZE + \beta_3 DY + \beta_4 BVr + e_i \qquad (1)$$

Where;
$AGENCY_i$: Agency Cost of Corporate i
LEV: Financial Leverage
SIZE: The Size of Corporate i
DY: Divided yield
BVr: Book value rate,
Note that 'SIZE' is the LOG of total sales in the end of financial year, in addition:

$$AGENCY_i = Tobin's\ Q \times FCF\ ; \quad (2)$$

$$Tobin's\ Q\ Rate = \frac{(Book\ Value\ of\ total\ Liabilities) + (Market\ Value\ of\ per\ Share \times Number\ of\ Shares)}{Book\ Value\ of\ Assets}; \quad (3)$$

$$FCF = \frac{(NIC - TAX - INTEXP - PSDIV - CSDIV)}{Total\ Assets}; \quad (4)$$

FCF: Free Cash Flow,
NIC: Net Income Before Depreciation and Amortization,
INTEXP: Interest Expenses,
PSDIV: Preferred Share holder's Dividend,
CSDIV: Common Share holder's Dividend

D. Hypotheses

The hypothesis of this research include:

1) there is a relation between capital structure and agency costs in Iran capital market.
2) the type of industry is effective on the relations between capital structure and agency costs in Iran capital market.
3) there is a significant difference between the average of agency cost among various industries.

IV. RESULTS AND ANALYSIS

A. Result of Descriptive Statistics

The results to investigate the descriptive indicators are as follows:

Table (1).descriptive indicators

Variables / Indicators	$AGENCY_i$	LOG of $AGENCY_i$	SIZE	LEV	DY	BVr
Number	445	443	445	445	445	445
Average	268249.82	10.94	5.58	0.61099	0.299	0.579
The average of Standard deviation	99540.25	0.875	0.294	0.00744	0.0216	0.020
Standard deviation	2099804.2	1.805	0.526	0.1566	0.456	0.428
Variance	4.409	3.260	0.277	0.025	0.209	0.184
Skewness	16.789	-0.371	0.708	-0.488	14.997	1.128
The Skewness's Standard deviation	0.116	0.116	0.116	0.116	0.116	0.116
Kurtosis	310.144	1.211	0.630	-0.135	272.001	1.397
The kurtosis's Standard deviation	0.231	0.231	0.231	0.231	0.231	0.231
CV	44521271.8	14.475	3.033	0.813	8.892	2.503
MAX	4044576	17.5	7.55	0.9355	8.759	2.528
MIN	-4075511.8	3.03	4.516	0.1225	0.0027	0.0240
Median	47014.47	11.08	5.509	0.632	0.2278	0.4502

Sixth and eighth rows show the Skewness and kurtosis of data than the bell-shaped normal curve. Between research variables, agency cost 16.789 is the highest skew on the right part. As well as they have the highest elongation (highest concentration around the mean). In some variables, average and median are close to each other. In these cases, the variable distribution is symmetrical. In addition, variables such as firm size, debt ratio, dividend yield and logarithm of agency cost

have a relative symmetry. This feature is so important, because symmetry is one of the characteristics of normal distribution.

B. The results of Pearson correlation coefficient

The results of Pearson correlation coefficient are as follow:

Table (2). The correlation coefficient of the first model (variables of agency cost, firm size, lev, dividend yield, book value to market value of the shares)

	LOG of $AGENCY_i$	SIZE	LEV	DY	BVr
Pearson Coefficient					
LOG of $AGENCY_i$	1	-0.079	-0.299**	-0.019	-0.514**
SIZE	-0.079	1	0.126**	0.156	0.111*
LEV	-0.292**	0.126**	1	-0.069**	0.014
DY	-0.019	0.156	-0.069**	1	0.154**
BVr	-0.514**	0.111*	0.014	0.154**	1
Sig					
LOG of $AGENCY_i$		0.097	0.000	0.683	0.000
SIZE	0.097		0.000	0.001	0.019
LEV	0.000	0.000		0.145	0.767
DY	0.683	0.001	0.145		0.001
BVr	0.000	0.019	0.767	0.001	
Number					
LOG of $AGENCY_i$	443	443	443	443	445
SIZE	443	445	443	445	445
LEV	443	443	443	443	443
DY	443	445	443	445	445
BVr	443	445	443	445	445

**significance level 0.1 and * significance level 0.05

Significant level is assumed 0.1 and numbers which are ** are significant at 90% and we can make an opinion about correlation and the amount of their correlation. For example, the variable of agency cost which is a dependent variable has a negative correlation with company size (-0.079) and has a negative correlation with debt ratio (-0.292). Positive correlation means a direct relation between two variables and negative correlation means an inverse relation between two variables.

E. Examining the assumptions of variables normality

By using Kolmogorov-Sminov test, the normality of dependent variables is investigated. Normality of dependent variables is lead to normality of model residual error. Null hypothesis and normality test are as follows:

H0: data distribution (agency cost) is normal.

H1: data distribution (agency cost) is not normal.

Table (3). Kolmogrov-Sminorv test (K-S) related to dependent variable (agency cost)

Statistics / variable	Number	Average	Standard deviation (S.D)	Absolute maximum S.D	MAX of Positive deviation	MAX of Negative deviation	Kolmogorov-Sminov rate	P-value
$AGENCY_i$ variable	445	268249	2099804	0.404	0.381	-0.404	8.527	0.00

Based on presented values (table 3), the significant level for agency cost in model is lower than 5% (P-Value or Sig>5%), so, the null hypothesis as normality of variables is not rejected.

Table (4). Kolmogriv-Sminorv one sample test for dependent variable (logarithmic representation costs)

Statistics / Variable	Number	Normal Parameters		MAX of deviation			Kolmogorov-Sminov rate	P-Value
		Standard deviation (S.D)	Average	Negative	positive	Absolute		
LOG of $AGENCY_i$ Variable	443	1.805	10.994	-0.041	0.035	0.041	0.863	**0.446**

In table (3), the significance level for agency cost is lower than 0.05 , So, the normality assumption of this variable is rejected, but the logarithm of this variable is 0.446 which is lower than 0.05, so the null hypothesis is not rejected for this variable.
It means that the logarithm distribution of this variable is normal.

F. Summary of hypothesis analysis

1. Analyzing and testing first hypothesis:

First hypothesis :"there is a relation between capital structure and agency cost of listed companies in Iran Stock exchange."
This hypothesis like following statistical hypothesis is provided:

H0: $\rho=0$ there is no significant correlation between LEV and agency cost
H1: $\rho\neq0$ There is a significant correlation between LEV and agency cost.

Table (5). Correlation coefficient, adjusted determination coefficient, Durbin-Watson test between two variables of agency cost and LEV (regardless of control variable).

Model	Coefficient	R^2	Adjusted R^2	S_e	D-W	Sig
1	0.292	0.085	0.083	1.729	1.732	0.00

According to table (5), the Pearson correlation coefficient between two variables of agency cost and LEV is 0.292. This number in error level of 5% shows a significant relation between two variables of agency cost and LEV. According to the outputs of SPSS software, the tables show that sig is lower than 5%, the H0 hypothesis is rejected in 5% error rate. And the correlation between two variables is confirmed, also the adjusted determination coefficient is 0,083 that show LEV determines the 8.3% of variable differences of agency cost.

The amount of Durbin-Watson statistic according to table (5) Is 1.732, this number show that errors that are dependent from each other and there is no correlation between errors, and the correlation hypothesis between errors is rejected and we can use regression.

Table (6). Regression variance for the variables of agency cost and debt ratio

	Sum of Squared	Degree Of Freedom	Mean of Squared	F-Statics	Prob
Regression Model	122.620	1	122.620	41.017	0.000
Residuals	1318.348	441	2.989		
Sum	1440.967	442			

Table (6) shows the variance analysis between debt ratio as dependent variable and agency cost as independent variable. According to this output, the significance of regression model is tested by ANOVA table and through following statistical hypothesis:

H0: there is no linear relation between two variables
H1: there is a linear relation between two variables

According to this issue that sig (significant level) is less than five percent, linearity hypothesis of relation between two variables are confirmed. Then, we are seek to find this relation.

Table (7). The coefficients of regression equation for variables of agency cost and debt ratio

Model	Non-Adjusted coefficient		Adjusted coefficient	t-Statics	Prob
	Std. Error	B	Beta		
(constant)	0.331	12.999		39.247	0.000
LEV	0.525	-3.363	-0.292	-6.404	0.000

In table (7) and in column B, respectively fixed value and coefficient of dependent variable is provided in regression model and this equation is as follows:

$$LnAGENCY_i = 12.9993 - 363\ LEV + e_i \qquad (5)$$

According to the output of table (7), other columns of this table include standard error of coefficients of column B, statistic t and sig which are used to test the equality test of each of the coefficients of column B or null number. If B and α are the best value of fixed value and slope of regression line, the hypothesis for these two variables are:

$H0 : B = 0$ $\qquad$ $H\,0 : \alpha = 0$
$H1 : B \neq 0$ $\qquad$ $H\,1 : \alpha \neq 0$

Since in this output (sig<0.05), equality test of regression coefficient and fixed value is lower than %5, so the equal hypothesis for these two coefficients are rejected and we can not delete them from regression equation.

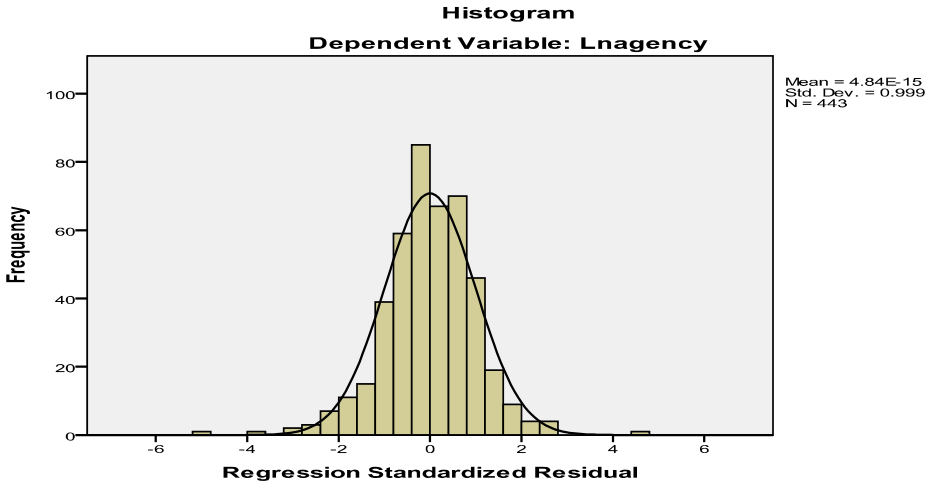

Figure (2): normality test of the errors of regression equation between two variables of Agency Cost and LEV

According to above figure, Std- DeV=0.999 and Mean=4.84, we can use the regression for two variables of agency cost and debt ratio.

1-1. Analyzing first hypothesis test by control variables

In this step, the relation between two variables is investigated in presence of control variables. To investigate the relation between independent and control and dependent variable, we first fit the regression model in presence of agency cost and LEV through SPSS software. Then, we compare the obtained results of this regression model with the results of multivariate regression model in the presence of each of control variables, through the obtained results of this study, non of the control variables have a significant relation (according to sig of hypothesis test of regression coefficients and its equality with zero) n the regression model and they should not add to regression equation.

Table (8). Correlation coefficient, adjusted determination coefficient, Durbin- Watson test between the variables of model

Model	Coefficient	R^2	Adjusted- R^2	S_e	D-W	Prob
1	0.590	0.348	0.342	1.4642	1.937	0.000

According to table (8), correlation coefficient is related to model research and equal to 0.590. In error level of 5%, this number shows a significance relation between the variable of LEV, control variables and agency cost. According to outputs of SPSS software, the tables show since sig is lower than 5%, H0 hypothesis is rejected in error level 5%. Regression model is significant level in 5% level and correlation between these variables is confirmed. Also, the adjusted determination coefficient show 0.342 .and it provides the fitness of changes of agency cost by above variables

The amount of Durbin-Watson test is according to table (8) and it is 1.937 and this variable shows that errors are independent and there is no correlation between errors and correlation hypothesis is rejected, and we can use regression.

Table (9). A summary of regression multivariate finding related to first hypothesis with "Enter Method"

Model	Non-Adjusted coefficient		Adjusted coefficient	T- statics	Prob	Status Indicators	Collinearity Statistics	
	Std. Error	B					Tolerance	VIF
(constant)	0.753	13.449	-	17.932	0.00	1.000	-	-
LEV	0.458	-3.343	-0.290	-7.298	0.00	2.300	0.943	1.061
SIZE	0.138	0.128	0.037	0.925	0.355	2.518	0.917	1.091
DY	0.156	0.139	0.035	0.889	0.374	2.819	0.946	1.057
BVr	0.165	-2.188	-0.520	-13.258	0.00	3.389	0.968	1.033

According to table (9), the significant regression model is fitted and it is confirmed in 95% in significant level and about foxed value and the coefficient of b is related to each variable, in general model, it is decided to significant level (sig). since in this output, the significant level of equal test of regression coefficient with zero related to the variables of company size, the return of dividend is more than 5%. So the equal hypothesis of regression coefficient with zero (H0 hypothesis) is

confirmed and we should remove them from regression equation and show that there is no significant relation between mentioned variables and agency cost. However, about the variables of LEV, the equal hypothesis of regression coefficient with zero (hypothesis H0) is rejected. In addition, it should not remove from regression equation. The indices of situation with amount more than 15 shows that there is a collinearity likelihood between independent variables. And the amount more than 30 shows a serious problem in using regression and according to this issue that the index of situation related to variable of model is lower than 15. There is no possibility of co linearity between independent variables and control. The amount of tolerance of model variables is in acceptable level. And there is no problem in using regression. Regression model will be as follows:

$$LnAGENCY_i = 13.499 - 3.343LEV - 2.188Bv + e_i \qquad (6)$$

2. *Analyzing the second hypothesis*

This hypothesis was presented as "type of industry on relations between debt ratio and agency cost" and this relation was conducted by using Pearson correlation coefficient. This measure due to the normality of two variables than same criteria means Spearman correlation has a higher test power, the correlation coefficient of variables is written as zero and following hypothesis:

$$\begin{cases} \rho_{XY} = 0 \\ \rho_{XY} \neq 0 \end{cases}$$

Pearson correlation matrix is calculated in the following table and most important results are provided in the following:

Table (10). Pearson correlation coefficients (related to type of industry)

Industry / statistics	Machinery and equipment	Food, except for sugar	Chemical	Cement, lime and plaster	Drug	Automotive and Parts
Pearson coefficient	-0.470*	-0.228	-0.469	-0.076	-0.185	0.104
Prob	0.018	0.226	0.002	0.719	0.66	0.394
Number	25	30	40	25	100	69

significant level of 0.05

Automotive and parts industry: there is no significant relation between LEV and agency cost in Iran Capital market in this industry, because the possibility values for debt ratio is equal to 0.394 which is not lower than 0.05.

Drug industry: there is no significant relation between LEV and the agency cost in this industry because the values of possibility for institutional ownership is equal to 0.66 which is not lower than 0.05.

Cement, lime and plaster industry: there is no significant relation between LEV and agency cost in capital market of Iran in this industry, because the amounts of probability is equal to 0.719 which is not lower than 0.05.

Chemical industry: there is a significant negative relation between LEV and agency cost in Capital market of Iran, the probability values for LEV is equal to -0.469 (negative).

Food industry except for sugar: there is no significant relation between LEV and agency cost in capital market of Iran, Because the probability values are equal to 0.226 and are higher than 0.05.

Industrial machinery and equipment: there is significant negative relation between LEV and agency cost in Capital market of Iran. The probability values are equal to -0.470 (negative).

3. *the third Hypothesis analysis*

This hypothesis is known as "there is a significant relation between the average costs of agency among various industries", hypothesis H0 and H1 are defined as follows:

H_o: $\mu_1 = \mu_2 = \ldots\ldots\ldots = \mu_k$

H_1: $\mu_i \neq \mu_j$

Table (11). Test of variance homogeneity

Agency Cost			
Levene -statics	Degree of Freedom	Degree of Freedom	Prob
2.987	6	427	0.007

Table (12). The test of equal averages of agency ANOVA costs

Agency Cost					
	Sum of squared	**Degree of freedom**	**Average of squared**	**F-statics**	**Prob**
Between groups	182.513	6	30.419	10.56	0.000
Outside groups	1229.956	427	2.88		
SUM	1412.469	433			

The obtained results from above tables show there is a significant relation between variances of agency costs of 6 investigated industries (Chemical industry, food industry except of sugar , automobile industry, pharmaceutical industry, cement and gypsum industry, machinery industry), there is a significant difference statistically (P-Value<0.05). also, the obtained results of table (12) show that the average agency costs of 7 industries has a significant difference. (P-value<0.05).so, the data show that the averages of 7 industries has a significant difference, so we should seek to these differences.

Table (13). Comparing the agency costs among different industries

Industry (i) & Industry (j)		**Differences between Averages**	**Standard errors**	**Prob**	**Confidence interval 95%**	
					Low limit	**Up limit**
Food(1)	2	0.27099	0.38806	1.000	-0.9613	1.5033
	3	0.37422	0.37232	0.999	0.7936	1.5442
	4	-1.52240*	0.30419	0.000	-2.5030	-0.5418
	5	-0.70793*	0.39990	0.800	-1.9771	0.5612
	6	-0.34224	0.32052	0.998	-1.3640	0.6796
Machinery and equipment (2)	1	-0.27099	0.38860	1.00	-1.5033	0.9613
	3	0.10323	0.36560	1.00	-1.0472	1.2537
	4	-1.79339*	0.29529	0.00	-2.5775	-0.8311
	5	-0.97891	0.32323	0.274	-2.2326	0.2748
	6	-0.61332	0.31268	0.659	-1.6165	0.3900
Automotive and Parts(3)	1	-0.37442	0.37233	0.999	-1.5421	0.7936
	2	0.10323	0.36560	1.00	-1.2537	1.0472
	4	-1.89669*	0.27497	0.00	-2.7508	-1.0424
	5	-1.08215	0.37772	0.109	-2.2735	-0.1092
	6	-0.71646	0.29293	0.278	-1.6221	0.1891
Drug(4)	1	1.52240*	0.34019	0.00	0.5418	2.5030
	3	1.79339*	0.29592	0.00	0.8311	2.7557
	4	1.89662*	0.27497	0.00	1.0424	2.7508
	5	0.81448	0.31076	0.221	-0.1986	1.8276
	6	1.18017*	0.19928	0.00	0.5702	1.7901
Cement, lime and plaster(5)	1	0.70793	0.39950	0.800	-0.5612	1.9771
	3	0.97891	0.39923	0.274	-0.2748	2.2326
	4	1.08215	0.37772	0.109	-0.1092	2.2735
	5	-0.81448	0.31076	0.221	-1.8286	0.1986
	6	0.36569	0.32667	0.997	-0.6880	1.4147
Chemical(6)	1	0.43898	0.38856	0.997	-0.7842	1.6622
	3	0.70996	0.38212	0.739	-0.4986	1.9167
	4	0.81320	0.36613	0.442	-0.3264	1.9527
	5	-1.08343*	0.29657	0.012	-2.0235	-0.1434
	6	0.26895	0.39372	1.00	-1.5138	0.9759

According to obtained results of the above table, except for industry 4 (Drug industry) ,that its up and low limit is not included, and so hypothesis of equal agency cost is rejected for it, Among other industries, the equality of Average cost (agency cost) is accepted.

Table (14). The results of first hypothesis

statistics / variables	Adjusted-R^2	R^2	D-W	T-statics	error	Prob	Result
The relation between agency cost and LEV(considering control variables)	0.342	0.348	1.937	-7.298	0.05	0.00	Hypothesis is accepted
The relation between agency cost and LEV(Regardless control variables)	0.083	0.085	1.732	-6.404	0.05	0.00	Hypothesis is accepted

Table (15). The results of hypothesis 2 and 3

Hypothesis	Title	Result
The type of industry is effective on LEV and agency cost	Accepted	The type of industry is so effective of relations of debt ratio and agency cost
The average agency cost is equal for different industry	Rejected	The average of agency costs among different industries is equal

V. Conclusions

What is considered in summary and overall conclusion of hypothesis test based on significant relation of independent variable (capital structure) and control variables (The dividend yield, the company's book value to market value of the shares) of the research with dependent variable, agency cost) of listed companies in Iran capital market during 2010 to 2013. And the result is that debt ratio has a negative and significant relation with agency cost. the variables of control, dividend have a significant and positive relation with agency cost. And book value to stock market value has a negative and significant relation with agency cost.

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