

Impact of Agency Costs of Free Cash Flow on Dividend Policy, and Leverage of Firms in Iran

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ABSTRACT: The objective of this study is to examine how firms in Tehran Stock Exchange control agency costs of free cash flow? And test the effect of agency costs of free cash flow on dividend and leverage. We use agency costs variables. Size, risk, Profit, growth, to measure the level of agency costs of the firms and use Dividend and leverage mechanism to control the agency costs of free cash flow. To this end, 101 companies listed in Tehran Stock Exchange during the period 2007 to 2012 were studied and multivariate linear regression model using fixed effects by panel data approach was used. Results show that there are Positive significant effect agency costs of free cash flow on use Dividend and leverage. Oslo size and profitability have positive significant effect on Dividend. Growth and risk have negative effect on Dividend but risk effect not statistically significant.

Keywords: Agency Costs of Free Cash Flow, free cash flow, Growth opportunities, financial Leverage, Dividend.

INTRODUCTION

There are several opinions about the free cash flow. Jensen was among the first person that could specify the free cash flow theory and provided the definition of it. According to his opinion, the free cash flow is as follow the funds of operating activity softer deduction of the necessary funds in order to investing of the projects with the positive pure (absolute) current value (based on the reliable capital rate) (Mehrani and Bagheri, 2009).

The cash funds obtained of the operating activities cannot be considered stand alone as the trade unit for creating of the cash circulation (flow). Thus it is necessary in order to examining of the ability besides of the cash funds obtained of the operating activities of the free cash flow have calculated and investigated. The positive value of the free cash flow for the companies represents that this company after the cost's payment and investments are included of the cash funds surplus. In the other hand the negative value indicates that this company has not been created enough cash to cover of the costs and its investment activities. The managers Canby identifying of the suitable growth opportunities of the funds in the projects with the positive pure (absolute) current value of the investments and thus they can make of the increasing of the wealth of its shareholders.

According to Jensen's theory, the companies with the high free cash flow have the high representative costs, because it is possible that these funds have invested for supplying of their short-term interests in the projects with the negative current value. The policy of the dividend's payment and the debts are Jensen's proposed mechanisms for reducing of the representative costs of the free cash flow. The company easier encountered with the high growth opportunities and the investments, with the investment of the free cash flow, should have less available forth dividend's payment, in the investment projects of the free cash flow.

The debt is as an alternative mechanism to reduce the representative costs of free cash flow. In this research, the variables of the representative costs of the free cash flow ,which is included of the free cash flow, size, risk, profitable, growth opportunity will be used of the measuring of the representative costs levels, and the financial balance and the dividend's policy will be us edas an controlling mechanisms and reducing of the representative costs.

2. LITERATURE REVIEW AND PRIOR STUDIES

Jensen admitted that the risk of non-asymmetry is higher; the uncertainty of the direct relationship between the current and expected inter stare increased. So, whatever the uncertain ties are increased about the revenues, the company avoids the obligation related to interest payment. Bradley and et al (1998) showed that the companies are distributed the free cash flow in the form of dividend, the management tries to invest the funds in the projects with negative current value, because the institution with the high free cash flow are encountered with the more potential representative costs .Trang and Hinny (2007) concluded that the high profitability and limited opportunities for investment and the internal shareholder are the positive factors in the dividends.

Dennis&Asobo (2008) concluded that the size, life cycle, profitability, representative contradiction and the growth opportunities are effective factors on the dividends .Chai & So, (2009) concluded that the uncertainty of the cash flow, life cycle, investment opportunities and representative contra diction are effective factors on the dividends. Siti Rahmi (2011) concluded that the size and profitability and risk have the positive effect on the dividend policy. The free cash flow haste negative impact on the dividend policy. In Iran, Garmroodi Lotfabadi, (2005) stated that the free cash flow has the positive and significant relationship on the dividend ratio.

Holder, (1998) with this assumption that the bigger firms have greater access to the capital market ,and to obtain them easily and can to increase their cash funds with minimal cost and it allows them to pay greater dividends to the shareholders, revealed that there is a positive relationship between the firm size and the payments dividend.

Vidhan et al., (2001) in a research as the subject "the investment opportunities and financial policies", concluded that the investment opportunities plays the significant roles in the financial theory and the financial policies theory of the companies and this is expected that the companies with the high opportunities, have the low debts and these companies are used more the short-term debts than the long-term debts and as well there are the reverse relationship between the investment opportunities and the dividend ratio.

Angelo et al, (2006) in a study as the title of "Dividend payments Policy and the accumulated benefit in the Capital Structure" concluded that the life cycle, profitability and investment opportunities are effective factors on the dividend.

The research's results of RezvaniRaz et al, (2009) in Tehran exchange stock revealed that the companies with low investment opportunity, there is a significant and positive relationship between the dividend changes and the free cash flow. As well as, the results showed in the large companies, there is a meaningful and positive relationship between the free cash flow and divided policy, due to having the financial supplying power and more bonds.RezvaniRaz and haghightat (2005) in a research as the title of "the investigating of the relationship between the free cash flow and the debt amount by considering of the investment opportunities and measures" and also" the investigating of the relationship between the free cash flow and the debt amount by considering of the investment opportunities and measures in the accepted companies in Tehran exchange stock have implied.

The research results showed that there are the direct relationships between the two variables of the free cash flow and the debt amount in the accepted companies in Tehran exchange stock. The results of this research indicate that in the meaningful level of 5%, there are the meaningful and positive relationship between the free cash flow and the debt amount in the companies with the low investment opportunity.

The companies with the low investment opportunities are expected to have high cash funds surplus, due to the lack of appropriate opportunities for investing. The amount of debt such companies are following of the cash funds surplus and this is showing that the investors and the domestic creditors in investment and creditability to the companies of members of exchange stock, have been attention the domestic financial supplying source and the important criterion assessment of the debt reimbursement, i.e. the free cash flow. Thus they concluded that in the meaningful level of 5% there are the meaningful and positive relationships in the big companies between the debt amount and free cash flow. Since that in the big companies, due to having of the financial supplying ways (more bond) towards to the other companies, are expected to have the high free cash flow .Sity Rahmi, (2011).

3. HYPOTHESES

- 1-Free cash flow has positive significant effect on dividend payout ratio.
- 2-Free cash flow has positive significant effect on financial leverage.
- 3-Agency cost of free cash has significant effect on dividend payout ratio.
- 3-1 Firm size has positive significant effect on dividend payout ratio
- 3-2 The dividend payout ratio is negatively influenced by risk.
- 3-3 Firm profitability has positive significant effect on dividend payout ratio
- 3-4 the dividend payout ratio is negatively influenced by growth opportunities.

4. RESEARCH METHODOLOGY

4.1 Statistical Community, Sample and Period

This study based on goal is applicable and its data has approach of after event (from the past). This research in terms of data collection is descriptive - correlation. The statistical population of this study includes companies that have had activity in the Tehran Stock Exchange during 2007 to 2012. Only firms which examined in this study have all the following characteristics:

- 1) The fiscal year end of sample firms is March 29 of each year.
- 2) Holding companies, banks, insurance, investment and financial intermediation are not samples.
- 3) Companies before 2007 has accepted in the Stock Exchange and be active during the 2007 to 2012.
- 4) Companies should during study period, has no trading interruption more than 5 months.
- 5) During the study period, external financing involve through issuing equity or borrowing from banks or issuing bonds.

4-2 Methods and data collection tools

Data collection method in relation to the theoretical foundations is library and archival. In the first section, done studies about research subject was collected from scientific and research papers, student projects, Internet website and was studied. In the second part, in order to achieve information to processing assumptions, the official website of the Stock Exchange organization, databases such as RAHAVARD NOVIN Software wisely used.

With taking into account the above limitations and on the basis of the available data, about 101 companies were considered for the study.

4-3 Method of data analysis

The final analysis is done using multivariate regression models using EVIEWS software. To examine the linear relationship between the explanatory variables, variance inflation factor (VIF) is used. Also, to analyze the data are used LEAMER and HOUSMAN tests and for overall analysis of regression model, F-statistics and for the significance of coefficients of regression model, t-statistics are used.

To test of the Hypothesis 1, based on "Free cash flow has positive significant effect on dividend payout ratio." we use the following regression model.

$$\text{Model1: } DIV_{it} = \alpha_0 + \alpha_1 FCF_{it} + \varepsilon_{it}$$

In this model, if the coefficient α_1 is positive and meaningful, it is showing that the increasing of the free cash flow lead to the increasing of the company's dividend and therefore there will not be any reason to reject of the first hypothesis. To test of the Hypothesis 2, based on "Free cash flow has positive significant effect on financial leverage"

$$\text{Model2: } Lev_{it} = \alpha_0 + \alpha_1 FCF_{it} + \varepsilon_{it}$$

In the model 2, whereas the α_1 is positive and meaningful, it is indicating that the increasing of the free cash flow lead to the increasing of the financial balance and, therefore, this hypothesis will be accepted.

To test of the Hypothesis 3, based on "Agency cost of free cash has significant effect on dividend payout ratio". We use the following regression model.

$$\text{Model3: } Div_{it} = \alpha_0 + \alpha_1 FCF_{it} + \alpha_2 Growth_{it} + \alpha_3 Prof_{it} + \alpha_4 Size_{it} + \alpha_5 Risk_{it} + \varepsilon_{it}$$

In the model (3), if the control variables coefficients profitability amount (Prof), the firm size (Size) is positive and its significant probability is less than 5%, the 3. No hypothesis based on the positive relationship between these control variables and the dividend ration, this hypothesis will be accepted. In the studying of the hypothesis (3), if the coefficient variable of commercial risk (Risk), i.e. α_5 and growth opportunities (Growth) α_2 , in the model (3), will be negative and the amount its significant probability is less than 5%, with 95% assurance, this hypothesis will be accepted

4.4 Operational Definition of Research Variables

Table 1. The method of measuring research variables

Type of variable	Variable name	Symbol	How to Measure
Independent	Free cash flow	FCF	$FCF_{it} = \frac{NI_{it} - \Delta PPE_{it} - \Delta ICap_{it}}{TA_{it}}$ <p>NI: Net profit $\Delta ICap_{it}$=changes in Working capital ΔPPE_{it} =changes in fix assets TA: Total Assets</p>
Dependent	Dividend	DIV	<p>Cash dividends per share price $Div_{it} = \frac{TDiv_{it}}{P_{it}}$</p> <p>TDiv=Total dividend The number of issued shares of company P_{it}:The last trading price</p>
Control	Size	SIZE	Natural logarithm of total assets
	Profitability	PRFT	$Prob_{it} = \frac{NI_{it}}{Equity_{it}}$ <p>NI: Net profit Equity_{it} : Book Value of Equity</p>
	Growth opportunity	GROWTH	$Growth_{it} = \frac{TD_{it} + MVE_{it}}{TA_{it}}$ <p>MVE= Market Value of Equity TL: Total liabilities TA: Total Assets MVE= Pitx Nit MVE Market Value of Equity Pit: The last trading price of company stock i in year Nit: The number of issued shares of company</p>
	Risk	RISK	$Risk_{it} = \sqrt{\frac{(ROA_{it} - \overline{ROA}_{it})^2}{3 - 1}}$ <p>Risk_{it} :triennial Standard deviation of asset returns ROA_{it}:ratio of net income to total assets of firm I in year t \overline{ROA}_{it} :Average of three years of return on assets</p>
	Financial leverage	Lev	$Lev_{it} = \frac{TD_{it}}{TA_{it}}$ <p>TD= Total liabilities TA= Total Assets</p>

5. Hypotheses Test

5.1 Descriptive Statistics

Statistics for study variables are presented in Tables 1 and 2.

Table 2. Table of descriptive statistics

Risk	Size	Growth opportunity	Profitability	Free cash flow	cash	Financial leverage	Dividend	Variables Name
Risk	Size	Grow	Pro	FCF		Lev	Div/p	Symbol
505	505	505	505	505		505	505	Number of observations
0.03	5.84	1.40	0.35	0.00		0.625	0.115	Mean
0.02	5.76	1.20	0.34	-0.02		0.640	0.081	Median
0.04	0.59	0.64	0.28	0.28		1.96	0.125	Standard Deviation
2.15	0.77	2.28	-0.24	1.62		-0.574	2.846	Skewness
4.97	0.88	7.11	9.28	30.84		0.541	11.409	Kurtosis
0.00	4.63	056.	-1.75	-2.33		0.04	0.000	Minimum
0.20	7.90	4.97	1.59	2.76		1.05	1.05	Maximum

Div : The ratio of dividends per share to price per share at the end of last year . Lev Ratio of total liabilities to total assets .
 FCF : Change minus the change in net fixed assets and working capital divided by total assets . Pro : Ratio of net income to

total equity ,*Grow* : Total market value of equity and book value of total liabilities divided by the book value of assets ,*Size* :
 Natural logarithm of total assets ,*Risk* : Tuesday-year standard deviation of return on assets

Source: Results of researcher

5.2 Hypotheses Test

First hypothesis: Free cash flow has positive significant effect on dividend payout ratio.

Table 3. Results of the first hypothesis test

Model1: $DIV_{it} = \alpha_0 + \alpha_1 FCF_{it} + \varepsilon_{it}$			
Significance level	t-statistic	coefficient	Variables
0.0000	3.56062	0.1361	DIV
0.0115	2.539052	0.0645	FCF
0.627084			coefficient of determination
0.627084			adjusted coefficient of determination
6.627351			F Fisher statistic
0.00000			Significance of F Fisher statistic
1.980056			Durbin-Watson statistic

Source: Results of researcher

According to the test results, the significance of the regression coefficients which are considered in this table; the probability of the independent variable of the free cash flow (FCF) with the value of 0.01, is below of 5%, and this suggests that the free cash flow has the significant effect on the rate of the company's dividend. However, in the other hands, because the value of this positive coefficient is with the value of 0.0645, the result is that this impact is direct; so there is no reason to reject for the first hypothesis. In other words, the increase in the amount of the free cash flow, led to the increase of the company's dividend.

Second hypothesis: Free cash flow has positive significant effect on financial leverage.

Table 4. Results of the Second hypothesis test

Model2: $Lev_{it} = \alpha_0 + \alpha_1 FCF_{it} + \varepsilon_{it}$			
Significance level	t-statistic	coefficient	Variables
0.0000	7.30538	2.208787	DIV
0.0499	2.14915	0.363863	FCF
0.628642			coefficient of determination
0.627084			adjusted coefficient of determination
6.627351			F Fisher statistic
0.0000			Significance of F Fisher statistic
1.980056			Durbin-Watson statistic

Source: Results of researcher

According to the test results, the significance of the regression coefficients which are considered in this table; the probability of the independent variable of the free cash flow (FCF) with the value of 0.04, is below of 5%, and this suggests that the free cash flow has the significant effect on the rate of the company's financial balance. However, in the other hands, because the value of this positive coefficient is (0.36), the result is that the free cash flow has direct effect on the balance, In other words, the increase in the amount of the debt levels led to the increase of the

company's free cash flow. So there is no reason to reject for the second hypothesis and this hypothesis is accepted at the 95% confidence level.

Third hypothesis: Agency cost of free cash has significant effect on dividend payout ratio.

Table 5. Results of the Second hypothesis test

Model3: $Div_{it} = \alpha_0 + \alpha_1 FCF_{it} + \alpha_2 Growth_{it} + \alpha_3 Prof_{it} + \alpha_4 Size_{it} + \alpha_5 Risk_{it} + \epsilon_{it}$			
Significance level	t-statistic	coefficient	Variables
0.7389	-0.333484	-0.2299	C
0.0076	2.682848	0.0668	FCF
0.0027	-0.022538	-0.0469	GROW
0.0000	5.485511	0.1104	Pro
0.0011	3.27873	0.0748	SIZE
0.1917	-1.307911	-0.0332	RISK
0.642764			coefficient of determination
0.547621			adjusted coefficient of determination
0.755762			F Fisher statistic
0.00000			Significance of F Fisher statistic
2.098749			Durbin-Watson statistic
4.702327			F Limer statistic
0.0000			Significance of F Limer statistic

Source: Results of researcher

According to the test results, the significance of the regression coefficients which are considered in this table; the probability of the independent variable of the free cash flow (FCF) with the value of 0.07, is below of 5%, and this suggests that the free cash flow has the significant effect on the company's dividend payment revenue. However, in the other hands, because the free cash flow has the direct effect on the dividend payment revenue, in other words, the increase in the amount of the free cash flow, lead to the increase of the company's dividend. Also the results indicate that the other variables except of the risk have the significant effect on the dividend. Because the significance level of the risk is more than 5%, it is concluded that this variable has no significant that effect on the dividend value. So, in the studying of the main hypothesis, the hypothesis 2-3 No is not acceptable, because the significant probability of this variable is greater than 5%.

The hypothesis 1-3 No, based on the positive and significant effect on the company's size to the amount of payment dividend revenue is acceptable, because the significant probability of this variable coefficient is less than 5% and in the other words, the estimate coefficient of this variable is about the positive 0.074 value. By similar reasoning, the hypothesis 3.3 is accepted, because the significant probability (PRO) is less than 5% and the estimated coefficient is positive. The hypothesis 2-3, based on the negative and significant relationship between the company's risk and the payment dividend revenue is acceptable, because the significant probability of this variable coefficient is less than 5% and in the other words, the estimate coefficient of this variable is about the negative 0.0469 value. The hypothesis 4-3, based on the negative relationship between the growth opportunity and the payment dividend revenue, regarding to the significant probability of this variable coefficient is less than 5% and regarding to the significant the estimate coefficient of this variable is about the negative 0.04value, is acceptable.

6. Summary of conclusions and recommendations

6.1 Summary of Findings

The results indicate that, by increase of the free cash flow, the payment dividends are increased to the shareholders. Also, the research results showed that by increase of the free cash flow, the financial balances are increased. According to the research, the debt is an alternative mechanism for reducing of the representative cost of the free cash flow and the managers by increase of the free cash flow of the debt are using of the mechanism for reducing of the representative cost. As well as the results of the present research indicates that size and profitability have the positive and meaningful effect on the payment dividend revenue. The trace of risk and growth opportunity is the negative for the payment dividend revenue which risk factor wasn't meaningful statistically.

According to the theory, there are always conflicts between the owners and the managers and the managers may prefer their personal interests to the interests of the shareholders. According to Jensen's theory, some of the companies with high free cash flow have high representative cost, because these funds are invested for the supplying of their short-term interests in the projects with negative value. The policy of the payments dividend and the debts are proposed Jensen mechanisms for reducing of the representative cost of the free cash flow.

The companies that have a lot of growth opportunities and investment, with the investing of the free cash flow in the projects of the free cash flow have the less available for the dividends payment. The companies tend to have higher-risk, are included the more free cash funds. Thereby for reducing of the financing cost prefer to provide these funds through the inside of the companies, so that they have paid the less benefit.

Table 6. Summary of study hypotheses results

3	2	1	Model Number
0.547621	0.628642	0.627084	Adjusted R2
Result	Hypothesis		Number
Accepted	Free cash flow has positive significant effect on dividend payout ratio.		1
Accepted	Free cash flow has positive significant effect on financial leverage		2
Agency cost of free cash has significant effect on dividend payout ratio.			3
Accepted	Firm size has positive significant effect on dividend payout ratio		3-1
Accepted	The dividend payout ratio is negatively influenced by risk.		3-2
Accepted	Firm profitability has positive significant effect on dividend payout ratio		3-3
Accepted	the dividend payout ratio is negatively influenced by growth opportunities		3-4

Source: Results of researcher

6.2 Consistency with findings of others

According to the present research results, the impact of the free cash flow is positive and meaningful on the payments dividend efficiency, this conclusion have consistency with in accordance with the research findings of GarmroodiLottfabadi, (2009), Shah Nazarian, (2006), Rezvani. Raz and et al, (2009). Janssen in his theory is introduced the dividend payments as a way to reduce of the representative costs of the free cash flow.

SityRahmi obtained to the reverse result, according to his research findings; the free cash flow has the negative effect on the payments dividend that statistically was not meaningful, which may to have the different result between the dividend policies in the various countries.

As well as according to the present research results, the impact of the free cash flow is positive and meaningful on the financial balance, and this conclusion have consistency with the research findings of RezvaniRaz and haghghat, (2005), B.K.J and Ferdinand, (1999) and SityRahmi, (2011). Whereas the debt is an alternative mechanism for the dividend payment of the companies with the high free cash flow, creates the greater debt, until decreases the representative costs of the free cash flow. According to the present research findings, the size and profitability have significant and positive effect on the payment dividends efficiency, which this finding have consistency with the findings of researchers, including Dennis and Osobo, (2008), De Angelo et al, (2006), Hollder, (1998),Jahankhani and Ghorbani(2005), Shah Nazarian, (2001), Moradi et al, (2009), RezvaniRaz et al (2009), Yahya Far and Emadi, (2011).

In this researches, as DPS / EPS as the payment dividend ratio have been used. There is this assumption that the big companies due to having of the bonds ways and greater financing methods and greater access to the capital markets have the higher free cash flow and as the result of, they have to pay more dividends. As well, the profitable companies have to pay more benefit between the shareholders, hereby under the messaging assumption give good marks to the market and increase their shares prices. The present research results, suggest that the risk association with the payment dividend efficiency is negative but not statistically significant. These results have consistency with the findings results of Rezf (1982) and Chen (1999) and in Iran with the research results of Jahankhani (2006), and Moradi et al (2009). This is argued that high-risk firms tend to have the higher free cash flow (compared with low-risk institutions.), because the need for external financing increases for these firms, and as the result of, it makes of reducing of the payment dividend for avoid of the external financing costs. As well as, whatever the risk is higher, the probability of this company to be bankrupt is higher and so the probability and the possibility of the payment of dividends by the companies would be low.

Molah, (2002) and SityRahmi, (2011) found the positive relationship between risk and the payment dividend return and stated that the companies are paying great profits, even if they have been the high risk. These differences due to differences in capital markets in the different countries and the different perspective of the managers, about the payment dividends in the risk situations are placed in the high levels.

6.3 The applied suggestions:

1-To the investors have recommended that in making decisions relating to the investment in the companies of the member of stock exchange have been focused the internal financial source, i.e. the free cash flow.

To the managers of the accepted companies in Tehran stock exchange in making decisions related to the dividend policy have suggested that in line with the realization of the goals to the maximum of the wealth shareholders, should be considered the very important factor of the investment opportunities (actual and potential).

6.4 Suggestions for future studies:

1- It is proposed that the representative cost of the free cash flow are measured by the indicators of measure ,profitability, and trade risk and growth opportunity relating to the company's debt.

2-The effect of the debt must be measured on the payments dividend policy liabilities.

3-The present study carried out in the various industries to separate of the industry and the obtained results must be compared.

6.5 Study Limitation:

1-In this research, the all of the commercial unit member of statistical sample, among of the manufacturing companies of Tehran stock exchange has been selected. Therefore it is necessary in the generalization obtained the results of the research hypothesis test to the all of the accepted companies in Tehran stock exchange must be protected with caution.

2-The extracted data from the financial statements have not been adjusted for the inflation. Regarding to adjustment of mentioned information may obtain the different results from the current (present) results.

REFERENCES

- Bradley M, Dennis RC and Paul JS. 1998. "Dividend Policy and Cash Flow Uncertainty", Journal of Real Estate Economics Vol. 26, No. 4, pp. 555-580.
- But poor and Sarah H. 2012. Dividend policy, terms of representation. "Accounting Research, Third Year, No. 12, Winter 90, pp. 161-136.
- DeAngelo H, DeAngelo L, René MS. 2004. "Dividend Policy, Agency Costs, and Earned Equity", Financial Economics Working Paper, No.10. Chan, K., Chan, L. K. C.
- Denis D and Osobov I. 2007. "Why are Dividend Different from FCFE", Mathematics and Economics, Vol. 42, Pp: 954-961.
- Holder M, Lingerer F and Hexter J. 1998. "Dividend Policy Determinants: An Investigation the Influences of Stakeholder Theory", Financial Management 27, pp.73-82.
- Jhankhany A and Ghorbani S. 2006. "Identifying and explaining the determinants of dividend policy of listed companies in Tehran Stock Exchange", Journal of Financial Research, No. 20.
- Mehran S and Bagheri B. 2010. ed., But poor, and Sarah HashemMousavi. (1390) .he effect of free cash flow and institutional shareholders on earnings management of listed companies in Tehran Stock Exchange. "Accounting Research, No. 2, Summer, 88, pp. 54-50 saw 12, Winter 90, pp. 161-136.
- Mehranikave. 2010. Framework for the analysis of dividend policy. "Journal of Administrative Sciences and Economics University, since Issue 1.
- Mollah S, Keasey K and Short H. 2002. "The Influence of Agency Costs on Dividend Policyin an Emerging Market: Evidence from the Dhaka Stock Exchange".Ratios", Journal of Financial Research Vol. 5, pp. 249-259.
- Rezvaniraz h and haghightat H. 2006. "The Relationship between free cash flow and debt investment opportunities, and taking into account the size of listed companies in Tehran Stock Exchange", Journal of Management, second year, (5) L. IV, No. 14. pp. 187-201.
- Rezvaniraz K, Ahmadi G and Ramadan M. 2010. "The relationship between free cash flow and dividend policy of listed companies in Tehran Stock Exchange." Journal of Financial Accounting, First Year, Issue 4. Pp. 92-107.
- Rozeff M. 1982. "Growth, Beta, and Agency Costs as Determinants of Dividend Payout.
- Shah Nazarian E. 2006. The relationship between dividend changes and cash Gzdsh of listed companies in Tehran Stock Exchange. "MA thesis. ShahidBeheshti University.
- Truong T and Heaney R. 2007. "Largest shareholder and dividend policy around The world", pp 667-687.
- UtamiSitiRahmi. 2011. "Agency Costs of Free Cash Flow, Dividend Policy, andLeverage of Firms in Indonesia "European Journal of Economics, Finance and Administrative Sciences. ISSN 1450-2275 Issue 33.
- VidhanK G, Kenneth L and Stankoracic. 2001. "Grow opportunity and corporate debt policy: the case of the U.S.Defense industry", Hong kong university of science and technology.
- Yahyazadefar M and emadiseyed M. 2011. The relationship between free cash flow, the dividend rate and profitability of listed companies in Tehran Stock Exchange. "Journal of Tehran Stock Exchange. Since Issue 14. Pp. 187-201.