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Research Article

THE INTERVENTION ROLE OF DIVIDENDS ON THE FINANCIAL PERFORMANCE OF COMPANIES ACCORDING TO COMPETITION AND FINANCIAL CONSTRAINTS FACTORS

***Fatemeh Sarfehjoo[1] and Mehdi Meshki[2]**
[1]Department of Accounting, Rasht Branch, Islamic Azad University, Rasht, Iran
[2]Department of Accounting, Payam-e-Nour University, Iran
**Author for Correspondence*

ABSTRACT
Based on the current literature, competition in the product market has been discussed as an external cooperative governance mechanism and a critical factor in making financial decisions of companies. Therefore, the aim of the present study is to investigate the effect of dividends on the financial performance of companies according to the financial constraints and competition factors. To achieve the goal of the study, a hypothesis has been formulated and the required data has been collected, for a period of *5* years, from *2009* to *2013*, and analyzed from among *145* companies accepted in the Stock Exchange. According to the results, the financial performance of firms, after increasing dividends in companies with financial constraints and competition capability, compared to those with less competition ability, is weaker.

Keywords: *Dividend Policy, Financing Constraints, Product Market Competition*

INTRODUCTION
Dividend is a policy that on tithe amount of the dividend, the amount of retained earnings, the remuneration of the Board, payment time, financing performance and the other related topics have been compiled and codified and offers to the general meeting of shareholders (Rahnamaye *et al.*, 2006). There are many reasons for dividend or not dividend. Accurate discovery and detecting of detection of effective factors on dividend policy is still a controversial issue in the field of corporate financial management. Before deciding about the ways of dividends' payment, director of the company should consider different variables. If the factors affecting the ratio of dividends and their impact are determined, managers are able to gain insight about their company's position in terms of dividend and consequently can make a better decision (Izadiniya *et al*., 2010).
Since dividend indicates cash withdrawal from a company, it causes reduction of company's financial resources. If the company is encountered with restrictions in resources, it loses the investment opportunities in competitive industries; however, the rivals may take advantage of the situation. Therefore, it reduces the ability to compete in product market and gradually leads to the exit from the market. When the company is facing financial constraints; the decision making for increasing dividend exacerbates the problems due to financial constraints because such decisions remove the internal resources of the company which are crucial for investment opportunities in a competitive market. In this article firstly the theoretical concepts such as dividend policy, restrictions on financing and the competition in the product market are described and then in order to answer the research questions, research hypotheses are formulated and tested. In the final section, summary of findings and suggestions are presented.
Dividend is one of the issues that has been significant for financial researchers for a long time and still remains as one of the most controversial issues in the field of financial management. Dividend of the companies is still complicated and enigmatic concept for financial researchers and it is debatable from two important aspects. On the one hand, it is an effective factor on future investments of the companies. Dividend causes both reduction of internal resources and increase the demand for foreign financial resources. On the other hand, many of the company's shareholders are asking for cash dividends. Therefore, Managers with the aim of maximizing shareholder's wealth should always balance their

various interests and profitable investment opportunities. As result, dividend related decisions which are adopted by managers are very critical and important (Hashemi and Rasayeian, 2009).

In this regard, Kim (2011) found that firms with financial constraints, in order to support new projects, are forced to use internal resources, because external financing (the debt) is too costly for them (Kim, 2010).

Companies that operate in competitive industries are more exposed to threats caused by financial constraints because lack of financial resources causes loss of investments with positive current net value. However, competitors may quickly make use of such opportunities which reduces the ability of the company to compete in product market and gradually leads to the exit from the market. When the company is facing financial constraints; the decision making about increasing dividend exacerbates the problems due to the financial constraints because these decisions cause outflow of the internal resources of the company which is crucial for investment opportunities in a competitive market. Accordingly, it seems that after dividend's enhancement, performances of companies with high competitive capability would be weaker in comparisons with the performance of companies which have low competition ability in product market.

Companies that operate in competitive industries are more exposed to threats caused by financial constraints. In this regard, in firms with financial constraints and with different competitive levels, explanation of how the company's assets return after the dividend's enhancement can guide fundamentally the investors and users of basic financial statements in decision making. The research done by Giroud and Mueller (2011) indicated that poor corporate governance in non-competitive industries lead to lower investment returns, lower productivity and lower market value. The results also suggest that poor corporate governance will potentially reduce labor productivity and increase costs of the product. However, this impact is less in competitive industries and companies which are capable to compete in the product market.

In an article entitled 'restrictions on financing and dividend policy', Masters *et al.,* (2013) concluded that companies which are faced with restrictions on financing respond to dividend's increasing negatively and having decline their efficiency and performance. Also, in companies with more competition in product market, this relationship is more intense. Fosu (2013) explored the relationship between capital structures with firm's performance according to competitive grade in commodity market. He used a new criterion to evaluate competitive potential in commodity market that was based on efficiency of each firm in related industry. Results showed that financial leverage has increased statistical sample firms' profitability, and also has improved competitive power in commodity market which is potential advantage from using financial leverage in firms.

In a study by Mahmoudi and Mohaghegh's (2011), with consideration of the payment process, market response toward changes in dividend stocks was investigated. In other words, in this study, the investors' response to three factors model of general CAPM was studied based on three forms of increasing trend, decreasing trend and unchanging trend. These categories were evaluated by using the Fama and French models. Following the results in increasing trend, the main positive deviation causes the positive market's response, deviation with constant trend causes minor negative response and deviation with substantial reduction has followed the same trend too. In constant process, substantial enhancement causes positive reaction, continues constant trend causes significant negative response and substantial reduction causes significant negative reaction of the market. In decreasing trend, substantial reductions and the fundamental enhancement have been faced with minor negative reactions of market, and continues constant process have been faced with positive reaction. Evaluation results indicate that when the market following the specific process; it shows a positive reaction to this increasing trend. While the firm does not deviate from its previous trend, the market does not show unexpected reactions. Due to the fact that market reaction to the substantial positive deviation of the negative trend, was such a negative reaction, it can be concluded that the market does not give an appropriate response to the positive news, against the negative trend and market follow trending these deviations.

Namazi and Ebrahimi (2011) examined the relationship between product market competition and efficiency of shares in listed companies in Tehran Stock Exchange. The results show that there is an

inverse and insignificant relationship between the Herfindahl index and stock returns of sample companies. Besides, there is a significant inverse relationship between the Herfindahl, Lerner, adjusted Lerner indexes and stock returns index. This finding means that if competition increases in industries, stock returns will be more.

Another study is conducted by Khajavi *et al.*, (2014). The aim of the article was to study the relationship between competition in the product market and earnings management of listed companies in Tehran Stock Exchange. The results indicate that there is generally a significant inverse relationship between the Herfindahl- Hirschman, Lerner, and adjusted Lerner indexes and companies profit management.

Ghorbani *et al.*, (2013) examined the relationship between product market competition, board independence and quality of information disclosure of listed companies in Tehran Stock Exchange. The results show that there is insignificant relationship between percentage of outside board members and disclosure quality. Furthermore, competition in the product market does not improve the relationship between these two variables.

MATERIALS AND METHODS

Research Hypotheses

Based on the analysis of the theoretical foundations and research carried out in this study, main hypotheses considered are as follows: Financial performance of the company, after dividend increases in firms with financial constraints and more competitive ability is weaker than firms with less competitive ability.

Table 1: Sample selection process

The total number of companies listed at the end of the year 2012	**471**
The number of companies that have been inactive in the period of 2007-2012 in Stock Exchange	(146)
The number of companies that are accepted after 2007 in Stock Exchange.	(36)
The número of companies that have been part of the holding, investment, financial intermediation, banks or leasing.	(40)
The number of firms that change their fiscal year in the period of 2007-2012 or their fiscal year is not ending in March.	(56)
The number of companies whose shares trade over six months have been interrupted in the period of 2007-2012	(48)
The number of companies whose information are not available in the time domain of 2007-2012.	
The number of sample firms	145

The present research is applied regarding goal. It is descriptive and correlation type regarding administration. Specifically the present research is going to determine the relationship between economic value added and the return earned by the shareholders regarding corporate governance approaches. This research has studied the relationships between the variables mentioned and wants to approve this relationship in the present situation based on historical data. Therefore, we can categorize it as one of post incidental researches. The research statistical population includes all companies listed on the Tehran Stock Exchange. In order to increase the strength of the sample, they were selected by a screening method according to the following criteria. The sample selection process is presented in Table 1.

Based on conditions above 145 active companies in Tehran Stock Exchange were selected for the time period between 2008 and 2012. The data needed was collected through statistical databases such as Rahavard-e-Novin and Tadbirpardaz and valid internet websites such as Caudal and DVDs published by Stock Exchange Organization.

Variables and their Operational Definitions

Dependent Variables

Return on assets: return of assets reflects the efficiency of the firms in the use of resources and is obtained from the ratio of net income to total assets (Tehrani, 2005)

ROA= $\frac{Net\ profit\ \ after\ \ tax\ \ deduction}{total\ \ assets\ \ value}$

Independent Variables

Independent variables are financial constraints, product market competition and the increased dividend.

1- Financial constraints: In 1997, Kaplan and Zingales divided companies from financial constraints view into 5 groups. Their criteria for classification were the gap between the internal and external cost of the companies. In 2001, Lamont, Polk and Requejo named the index as the KZ index. KZ index is a regression model where financial constraints as a function of cash flows, cash dividend interest, cash remained, leverage ratios and Tobins Q indicator. Companies that have a higher KZ, their dependence on shareholders' equity is higher. In other words, the higher index shows that the company in financial constraints does not have the credit for using foreign funds (capacity is filled with debt). Therefore, company starts publishing the stock. The researchers used a combination of regression in order to obtained coefficients as follows:

Model (1)

KZ_{index}=-1.002$\frac{CF_{it}}{A_{t-1}} - 39.368\frac{Div_{it}}{A_{t-1}} - 1.315\frac{C_{it}}{A_{t-1}} + 1.139Lev_{it} + 0.283Q$

CF: Net cash flow, Div: Total dividends, C: Cash (Cash remained in banks)

A_{t-1}: book value of total assets in year t-1, Lev: leverage ratio (the ratio of total debt to total assets)

Q: according to Park and Jang (2013) Tobins Q ratio is calculated by the following equation:

Tobins Q = $\frac{\text{book value of debt + market value}}{\text{total assets}}$

KZ index by Tehrani and Hesarzadeh (2009) is localized in Iran based on the coefficients estimation of the companies listed in Tehran Stock Exchange. An index that these researchers have provided for measuring the financial constraints on Iran is as follows:

Model (2)

KZ_{index}=17.33-37.486$\frac{C_{it}}{A_{t-1}} - 15.216\frac{Div_{it}}{A_{t-1}} + 3.394Lev_{it} - 1.402MTB$

MTB: To calculate this variable, the ratio of market value to book value of the company's equity is used.

The higher KZ amount calculated for the companies, indicating greater financial constraints. In this study, by using the above model, KZ index will be calculated for all companies in the sample studied and then, according to the results companies are classified into five groups. The first and second groups, which the highest index value belongs to them, are classified as companies that have financial constraints (Tehrani and Hesar, 2009).

FC: it is a dummy variable that if the company in accordance with the KZ index is classified among the firms with financial constraints, the value is 1, otherwise it is zero.

The dividend increase: it is a positive change in the cash dividends paid to shareholders. In the present study, if a dividend is increased in proportion to the period preceding, it deemed to be as the firms' plans to increase dividends (Masters *et al.*, 2013).

Div: it is a dummy variable that if the company increases the dividend in a specific year compared to the previous ones; its value is 1, otherwise it is 0.

Competition in the product market: this variable is calculated through Herfindahl index.

Stock companies work in various industries. Therefore, the sale ratio of any company in the industry divided by the total sales of that industry show the company's position in the industry. The higher index represents a more concentration and less competition in the industry and vice versa.

HHI=$\sum_{i=1}^{X} S_i^2$

S_i^2 = Square of firm i's market share achieved by sale of any company in the certain industry divided by the total sales of that industry.

i: number of firms in the market

There are a large number of firms with equal share in the market which close the index to zero, and the number 1 indicates the existence of a state monopoly.

DHHI: it is a dummy variable that if the company's HHI index is lower than the median HHI index of all companies in the sample, its value is 1, otherwise it is zero.

Control Variables

1) The ratio of book value to equity market value (BM): To calculate this variable the ratio of book value to market value of equity is used.

Firm size (Size): To calculate this variable, the natural logarithm of the market value of the company's stock is used.

1) Discretionary accruals (DA): it is estimated by the modified Jones model (1991).

In this study, the modified discretionary accruals are calculated through Jones model.

Model (3)

$$TAC_{it} / TA_{it-1} = \alpha_1 (1/TA_{it-1}) + \alpha_2 (\Delta REV_{it} / TA_{it-1}) + \alpha_3 (PPE_{it} / TA_{it-1}) + \varepsilon_{it}$$

In this model:

TAC_{it} = Total accruals of *i* company in the year *t* that can be calculated from the difference between operating profit and operating cash flow.

TA_{it-1} = Total assets of *i* company in year $t-1$

ΔREV_{it} = Difference between the net sales of *i* company in year *t* and net sales of *i* company in year $t-1$

PPE_{it} = Net property and equipment of *i* company in year *t*.

In this relationship, firstly; the modified Jones model is estimated and then its residues are considered as discretionary accruals.

RESULTS AND DISCUSSION

Results

Research Hypotheses Testing

In order to test the hypotheses, a multivariate linear regression model was used. Statistical method used in this research is panel data methods. For data analysis Excel and Eviews6 software have been used.

In order to test the hypotheses, by using the F test bound, data integration has been tested properly. Based on the Hausman test, type of test (fixed effects or random effects) is determined and the type of procedure was used to estimate the model.

To assess the significance of the model, F statistic is used. The significance of the coefficience of the independent variables of the t-statistic is calculated at 95%. Testing of the linear regression model assumptions are discussed as follows:

Assumption of normality of the residuals: One of the most important assumptions about the error is abnormal distribution of ε . In this study, to evaluate the normal distribution of errors, Jarque - Beratest is used.

Assuming the absence of co linearity between independent variables: co linearity refers to the relationship between the independent variables in the model. In this study, to investigate the absence of co linearity (there is no significant relationship between the independent variable) the Pearson correlation coefficient is used. If a correlation between the strong independent variables would not be greater than 0.7, it is concluded that there is no problem of co linearity between the explanatory variables and the model can simultaneously be investigated.

Correlation analysis: the correlation will be discussed for two criteria of the coefficient determination (R2) and correlation coefficient (R).

Assuming independence of the residuals: for investigation of the independence of residuals, the Durbin-Watson statistic will be used.

Assumption of Heteroscedasticity of the residuals: The residual variance homogeneity assumption will be studied by Breusch- Pagan.

Testing model of research hypothesis was adapted from Masters *et al.*, (2013) research which is as follows:

Model(4)

$$ROA_{i,t} = \beta_0 + \beta_1 Div_{i,t-1} + \beta_2 FC_{i,t-1} + \beta_3 HHI_{i,t-1} + \beta_4 Div*FC* DHHI_{i,t-1} + \beta_5 Size_{i,t-1} + \beta_6 BM_{i,t-1} + \beta_7 DA_{i,t-1} + \beta_8 ROA_{i,t-1} + \varepsilon_{i,t}$$

In model (6), the coefficient β1 reflects the company's financial performance after increased dividend in all sample firms and the coefficient β4 shows the performance in firms with financial constraints and more competitiveness. Accordingly, the assumptions of the statistical hypothesis are as follows:

H_0: $\beta_1 \leq \beta_4$

H1: β1> β4

Data Analysis and Testing Hypotheses

Descriptive Statistics for Research Variables

The summary of descriptive statistics of the variables after removing outliers is presented in the table below:

Table 2: Descriptive statistics of research variables

ROA	DIV	FC	SIZE	BM	DA	HHI	DHHI	Statistics
Return on Assets	The increase in Dividend	Financial Restraints	Firm Size	Book value to market value	Discretionary accruals	product market Competition	Virtual variable of competition in product market	
0/135	0/446	0/403	12/93	0/729	0/033	0/307	0/442	Mean
0/110	0/000	0/000	12/81	0/604	0/043	0/262	0/000	Medium
1/724	1/000	1/000	18/52	3/321	2/532	1/000	1/000	Max
0/382	0/000	0/000	9/443	-0/928	0/866	0/062	0/000	Min
0/163	0/479	0/490	1/551	0/509	0/242	0/232	0/496	Standard Deviation
3/507	0/216	0/395	0/734	1/108	3/037	1/349	0/232	Skewness
29/184	1/046	1/156	4/031	5/633	29/820	4/569	1/054	Expansion
995	995	995	995	995	995	995	995	Observations

Descriptive statistics analysis provides useful information on the distribution of the collected data and calculated variables to researchers. For example, the results presented in Table 1 indicate that, on average, the companies in the sample were profitable during the investigation. Because the average obtained for the variable ROA is positive. Investigating the variable (DIV) suggests that 44.6 of the sample companies have increasing dividends. Standard deviation of return on assets variable and return on equity are more than their average which indicates that the data is not normally distributed variables and have severe fluctuations. Also scenes and kurtosis of these variables suggests that these variables are not normally distributed. Checking a dummy variable of financial constraints (FC) suggests that about 40.3% of the sample companies have financial constraints. Related to the competitive ability of the product, the results suggest that the value of this variable is zero, indicating that at least in some companies in the sample, the conditions of competition in the industry has been neglected.

The Normal Distribution Test of the Dependent Variable

Jarque - Bera test is used to examine the normality of the dependent variable.

Table 3: Test results of the normally distributed dependent variable

Significance level	Jarque–Berastatistics	Variable
0.000	29783.36	ROA

Due to the level of statistical significance of Jarque - Bera - for this variable which is less than 0.05 (0.000), it is indicating that the variables are not normally distributed. Therefore, it is necessary to

normalize this variable before testing the hypothesis. In this study, for normalizing data, Johnson transformation function is used.

Table 4: Results of the normal distribution of the dependent variable in the study after normalization process

Significance level	Jarque–Berastatistics	Variable
0.099	4.612	ROA

According to Table (4), since the statistical significance of the Jarque - Bera, after data normalization has risen to more than 0.05 (0.099), thus the hypothesis H_0 is confirmed at 95% that indicating the dependent variable of the study after the normalization process, is normally distributed.

The Results of the Hypothesis Test

The purpose of this study was to test the hypothesis that: whether the financial performance of the company, after increasing dividend in firms with financial constraints and less competition ability compare with more competitive firms is weaker or not?

Model (4)

$$ROA_{i,t}= \beta_0+\beta_1 Div_{i,t-1} +\beta_2 FC_{i,t-1} +\beta_3 HHI_{i,t-1} +\beta_4 Div*FC* DHHI_{i,t-1} +\beta_5 Size_{i,t\ t-1} +\beta_6 BM_{i,t-1}+\beta_7 DA_{i,t-1}+\beta_8 ROA_{i,t-1}+\varepsilon_{i,t}$$

In this model, in order to determine whether the use of panel data estimation methods would be effective or not the Lymer F test was used. To determine which method (fixed effects or random effects) is better for estimation the Hausman test is used. The results of these tests are presented in Table (5) states.

Table 5: Results of the selection model to estimate model (1)

Test Type	Test Statistics	Test Statistics Value	Freedom Degree	*P-Value*
F Limer Test	F	1.693	(701.144)	0.000
Housman Test	χ^2	139.341	8	0.000

According to the results of the Limer F test, since the P-Value of the test is less than 0.05 (0.000), differentially intercept is verified. To estimate the model, data panels was used. Also according to the results of the Hausman test, since the P-Value test is less than 0.05 (0.000), the model must be estimated using fixed effects methods. Table 6 shows the results of the models as well as the classical regression and statistics outcomes. Furthermore, according to Chart 1, the distribution of the residuals is close to a normal distribution

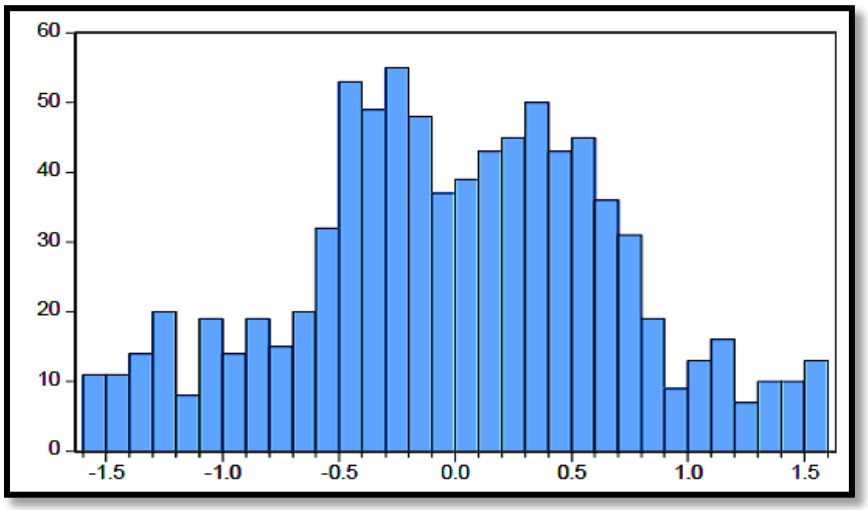

Figure 1: Distribution of residuals of model

Table 6: Shows the results of estimating model (4)

Dependent variable: Return on assets, Observations: 995 year - company			
Variable	Coefficient	t statistics	*P-Value*
C	2/11	3/826	0/0001
DIV(-1)	0/063	2/219	0/0268
FC(-1)	-0/041	-0/942	0/346
DHHI(-1)	-0/203	-2/334	0/0199
DIV*FC*DHHI(-1)	0/126	2/094	0/0365
SIZE(-1)	-0/173	-4/194	0/000
BM(-1)	-0/191	-3/669	0/0003
DA(-1)	-0/315	-2/861	0/0043
ROA(-1)	2/084	7/633	0/000
The adjusted coefficient of determination model: 0.8475			
F model Statistics (*P-Value*)	25/630 (0/0000)	Jarque-Bera Statistics (*P-Value*)	5/096 (0/0782)
Breusch-Pagan Statistics (*P-Value*)	2/863 (0/0038)	Durbin-Watson Statistics	1/870

According to the results presented in the table model, since the probability of t-statistic for variable coefficient DIV (-1) and DIV * FC * DHHI (-1) was smaller than 0.05 (0.026 and 0.036respectively) and the coefficient of each variable is positive (respectively 0.063 and 0.126), it is concluded that the financial performance of companies among all companies and also firms with financial constraints and high competitiveness react positively to an increase in dividend. To compare this reaction of firms with financial constraints and high competitiveness with other firms, Wald test was used. The results are shown in table (6).

Wald test statistical hypothesis for this model is as follows:

H_0 .C(2)≥C(4) H_1 .C(2)<C(4)

Table 9: Wald test results of the first hypothesis

t statistics	**Coefficient**	**Degree of freedom**	***P-Value***
t	-2.052	701	0.0405

According to the Wald test results, the estimated coefficient of the variable DIV (-1) is larger than the estimated coefficient of the variable DIV * FC (-1).C (2)> C (5) and t-statistics are significant at the 95 % of reliability. Therefore, it is concluded that the financial performance of the company, after increasing dividend in firms with financial constraints and more competition ability compare with less competitive firms is weaker and the third hypothesis of the research will be accepted.

Discussion

The results show that the financial performance of the company, after increasing dividend in firms with financial constraints and more competition ability compare with less competitive firms is weaker.

This finding is consistent with results of the research by Masters *et al.*, (2013) and theoretical basis of this study. Companies that operate in competitive industries are more exposed to threats caused by financial constraints because lack of financial resources causes loss of investments with positive current net value. However, competitors may quickly use of such opportunities which reduces the ability of the company to compete in product market and gradually leads to the exit from the market. When the company is facing financial constraints; the decision making about increasing dividend exacerbates the problems due to the financial constraints because these decisions causes outflow of the internal resources of the company

which is crucial for investment opportunities in a competitive market. Accordingly, it seems that after dividend's enhancement, performances of comparison with high competitive capability would be weaker in comparison with the performance of companies which have low competition ability in product market.
Based on the research findings, it is recommended to the investors and capital market participants that in their evaluation of corporate financial performance after increasing dividends paying attention to the financial constraints as well as the competitive ability of that company. To do any research, the researcher is faced with restrictions. In this study, due to the poor performance of capital markets in Iran (Allah, 2008), the results can be affected by a confounding factor and the researcher cannot control it. This is one of the barriers in the implementation of the present study is based on market capitalization.

Practical Suggestions

1. Based on the research findings, it is recommended to the investors and capital market participants that in their evaluation of corporate financial performance pay attention to the financial situation (having constraints or not) of that company.
2. it is also recommended to the investors and capital market participants that in their evaluation of corporate financial performance after increasing dividends pay attention to the financial constraints as well as the competitive ability of that company.

REFERENCES

Allahyari A (2008). Study of weak-form efficiency of the capital market in Tehran Stock Exchange. *Quarterly Stock Exchange* **1**(4) 75-108.
Azar A and Momeni M (2008). *Statistics and Its Application in Management* (SAMT Publication) Tehran **2**.
Bao D, Chan KC and Zhang W (2012). Asymmetric cash flow sensitivity of cash holdings. *Journal of corporate Finance* **18**(4) 690-700.
Blau B and Fuller K (2008). Flexibility and dividends. *Journal of Corporate Finance* **14**(2) 133-152.
Campello M (2003). Capital structure and product markets interactions: evidence from business cycles. *Journal of Financial Economics* **68** 353–378.
Fama EF and Jensen MC (1983). Separation of ownership and control. *Journal of Law and Economics* **26** 301–325.
Fosu S (2013). Capital structure, product market competition and firm performance: Evidence from South Africa. *The Quarterly Review of Economics and Finance* **13**(2) 15-25.
Gopalan R, Nanda V and Seru A (2007). Affiliated firms and financial support: Evidence frumindian business groups. *Journal of Financial Economics* **86** 759-795.
Hashemi SA and Rasaeiyan A (2009). Study of factors affecting on dividend policy of listed companies in Tehran Stock Exchange. *Faculty of Economic and Administrative Sciences* **51** 187-213.
Izadiniya N, Soltani A and Alinaghiyan N (2010). Evaluation of factors affecting the dividend policy of listed companies in Tehran Stock Exchange. *Journal of Accounting Studies* **26** 139-155.
Jakhotiya G (2003). *Strategic Financial Management* (Vikas Publishing House Pvt Ltd.).
Jensen MC (1986). Agency Costs of Free Cash Flow, Corporate Financial and Takeovers. *AEA Papers and Proceedings* **76** (2) 323-329.
Kahyarara G (2012). *Market Competition and Performance of Tanzanian Manufacturing*. Senior Lecturer, Economics Department University of Dar-es-Salaam.
Kashanipour M and Naghinejhad B (2009). Effect of financial constraints on the cash flow sensitivity of cash. *Accounting Research* **2** 25-45.
Kim TN (2011). *The Impact of Corporate Cash Holdings and Dynamic Financial Constraints on Investment-Cash Flow Sensitivity*. Available: http://ssrn.com/abstract=1743142.
Mahmoudi V and Mohaghegh M (2011). A study of Tehran Stock Exchange's response toward major deviations from stocks's dividend process. *Study of Accounting and Auditing* **66** 29-46.
Meshki M and AssiRabbani M (2011). Study of the relationship between management profit forecast errors with abnormal return of stocks and systemic risk in Tehran Stock Exchange. *Reviews of Accounting and Auditing* **66** 53-68.

Myers SC and Majluf NS (1984). Corporate financing and investment decisions when firms have information those investors do not have. *Journal of Financial Economics* **12** 187-221.
Namazi M and Ebrahimi S (2012). Examining the relationship between product market competition structure and stock returns. *Financial Accounting Research* **2**(3) 9-27.
Pathan S, Faff R, Méndez CF and Masters N (2015). Financial constraints and dividend policy. *Australian Journal of Management* 0312896214557835.
Pawlina G and Renneboog L (2005). *Is investment-cash flow sensitivity caused by the agency costs or asymmetric information*? Evidence the UK, Tilburg University. Discussion paper.
Pratop S (2003). Do adjustment costs explain investment-cash flow invesitivity*? Journal of Economic Dynamics & Control* **27** 1993-2006
Sarmad Z, Bazargan A and Hejazi E (2011). *Research Methods in the Behavioral Sciences*, the twenty-first edition (Agah Publication) Tehran.
Souri A (2010). *Econometrics, 1st Printing* (Farhang Shenasi Publication) Tehran.
Tehran R and Nourbakhsh A (2005). *Investment Management* (NegaheDanesh Publication).
Tehrani R and Hesarzadeh R (2009). The effect of free cash flows and financing constraints on over investment and under investment. *Accounting Research* **3** 50-67.
Whited T and Wu G (2006). Financial constraints risk. *Review of Financial Studies* **19** 531-559.
Yaffee R (2003). *A Primer for Panel Data Analysis*. New York University, Information Technology Service.