

## IMPACT OF CAPITAL STRUCTURE AND DIVIDEND POLICY ON FIRM'S PERFORMANCE AND STOCK RETURN

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### ABSTRACT

The paper investigated the impact of capital structure and dividend policy on firm performance and stock return. The study used the panel data of 24 companies listed in KSE 100 index of Pakistan over the period of 2007-2013. Results of Hausman, (1978) test suggest Random Effect Model. Firm Performance is the dependent variable and capital structure is the independent variable. Moreover, two control variables are also used (i.e. Growth and Size). The result shows that capital structure portion (STD and LTD) has negative impact on performance of the firm. Furthermore, dividend policy (Pay) also has negative relationship with performance of the firm.

**Keywords:** Capital structure, Dividend Policy, Firm Performance, Stock Returns, Pakistan.

**JEL Classification:** G35, G32, L25, C31

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## 1. Introduction

Theories related to the capital structure are trade off and pecking order focuses on different priorities. Dividend theories are residual theory of dividend, Modigliani-Miller theorem and models involve Gordon model and Walter model. (Allen N. Berger, Emilia Bonaccorsi Di Patti, 2006) analyzed how much the capital structure or leverage impacts the performance of the firm. Other policies revolve round the dividend policy (Ali et al., 1993). An open or transparent dividend policy attracts the more shareholders and the capital and the worth of the company ultimately increased. (Frankfurter, 2002) said that either to pay the dividend or not is a puzzle.

### 1.1 Significance of the Research

As (B. Keim, 1985) found out the relation between stock returns and dividend yield. All the researches on these four topics are available in individual forms or in the form of couple of topics. So there were very rare articles which at a time cover these four points namely capital structure, dividend policy, stock return and firm's performance.

### 1.2 Objectives of the Research

Firm value can be affected by dividend policy (Baker et al., 2001). If there happen appropriate capital structure decision and good stock return and will firm performance, the investing confidence of the investors in Pakistani companies will ultimately increase which can cause High economic growth as (P. Rao et al., 1992) examined the dividend and stock return.

### 1.3 Research Questions

- What will be the impact of capital structure on firm's performance?
- What will be the impact of dividend policy on firm's performance?
- Which portion of capital structure become major causes of fluctuation in the performance of the firm?

## 2. Literature Review

(Suwanna, 2012) elaborated the impact of dividend announcements on the stock returns, in which he focuses the signaling theory of dividend, according to which a company announces its

dividend policy to show that its stock price is going to be change in future. For this purpose he took data of 60 listed companies at Thai stock exchange (SET) from 2005-12.

(Allen N. Berger, Emilia Bonaccorsi Di Patti, 2006) analyzed that how much the capital structure or leverage impacts the performance of the firm. He used the profit efficiency to test the theory. And he employed the simultaneous equation model. For this purpose the banking industry of United States is undertaken.

(Manos et al., 2012) undertook the two types of firms, firstly is group affiliated firms and second are independent firms. Two types of theories, market failure theory and theory of dividend policy are for this purpose. The data has been taken from a large number of individual, non-financial, and group affiliated Indian firms. They concluded that all the business groups remain under the shadow of risk while taking the decision of dividend payment.

(Fischer Black and Myron Scholes, 1974) explained that no empirical study can exactly tell that which dividend policy will impact the dividend yield, and also the low or high yield security cannot suggest that either the stock return will be high or low even after tax paying. They admitted that it is unsure that what will be the impact of dividend yield on stock return.

(Dimitris Margaritis and Maria Paillaki, 2010) investigated the relationship between capital structure firm's performance and ownership structure, for this purpose they used the data of French manufacturing firms and used data development analysis method. To calculate the effect of efficiency on leverage, quintile regression is used.

(Fosu, 2013) measured the relationship between the performance of the firm and capital structure, and also focus the industry competition. For this analysis, data has been taken from the 257 firms of South Africa. Time period on which research has been conducted is from 1998 to 2009. At the end he concluded that leverage has positive impact on firm's performance.

(Rao et al., 1992) examined the dividend and stock return of the stock exchange of Tokyo (TSE), of Japan. B. Keim, (1985) find out the relation between stock returns and dividend yield. It showed that the problem occurred due to the non-linear relation between dividend and stock return, for calculation purpose regression coefficient on dividend is used.

(Chen et al., 2005) analyzed the data of 412 public limited companies of Hong Kong, for this purpose the data has been taken from 1995 to 1998. They concluded that the performance and dividend policy is affected by board of directors, particularly in small firms.

(Bohren et al., 2012) studied the firms owned by the owners, but owners are in minority and non-owner like employees, customers, citizens are more than the owners. They conclude that even in owner owned firms and non-owner owned firms, the decision of dividend payout is taken by the strong stakeholders.

(Fairchild et al., 2013) examined the effect of power of investor and effect of ownership on dividend policy. For calculations Thai companies has been taken from 1996 to 2006. They concluded that the big shareholders reduce the power of outsider investors which cause less dividend distribution trend.

(S. Hansen, Wernerfelt, 1989) used performance measures and also used some economic variables. Through this data, mean and standard deviation calculated and estimated the determinants of the organizational performance.

(Mahfuzah Salim, Raj Yadav, 2012) checked the impact of capital structure on firm's performance, and took data of 237 listed companies of Malaysia stock exchange, time period taken from 1995 to 2012. He concluded that firm's performance and capital structure has positive relationship.

(Anders Kjellman and Staffan Hansen, 1995) investigated that in the Finland, most of the companies tend to maximize the value of the firm by minimizing the cost of market imperfection. They also elaborated two theories, Pecking Order Theory and Financing Hierarchy Theory. They concluded that the managers of Finland companies maintain the strategy of target capital.

(Tongkong, 2012) analyzed that some factors influences the capital structure decision, for this analysis he used the data of 39 Thai listed companies of Thailand stock exchange. He supported the pecking order theory, and concluded those companies which take less debt has higher profitability and firms having opportunities of high growth tend to have high leverage.

(Amidu, 2007) checked the relationship between the dividend policy and growth in sale, so the results showed that it contains the positive relation. For this purpose 8 year data had been extracted from GSE.

(Ajanthan, 2013) took financial material from Colombo stock exchange and analyzed the relationship between firm performance and dividend payout.

### 3. Data and Research Methodology

#### 3.1 Data Collection and Unit of Analysis

The sample used in this paper is 24 listed companies of the Karachi Stock Exchange of Pakistan, in the KSE 100 index related to different sectors but does not include the banking sector. The selected sectors consist on manufacturing companies except one which provide the financial services. Sectors are cement sector, oil and gas sector, financial service sector, power and electricity sector, chemical sector, household products sector, and house hold product manufacturing sector. Financial data of the companies has been taken of seven years 2007-2013. Financial data extracted from financial statements of companies. In this study, five dependent variables have been taken for analysis, which are ROA, ROE, NI, EPS and TOBIN Q. The purpose of taking these variables as dependent is to check the impact of capital structure and dividend policy on firm's performance and stock return that is why for the dividend and stock return, the NI and EPS has been taken, while the other variables represents the Capital structure. The KSE companies have been taken as data to analyze that what impact is of dividend policy and capital structure upon the performance and stock return. It does not contain the time series data.

#### 3.2 Explanation of Variables

Total variables used in this study are 12 in number from which 5 are dependent and 5 are independent while 2 are control variables.

##### 3.2.1 Dependent Variables

ROE= Return on equity tells that how much the company has received the profit from the investment made by investors.

ROA= Return on asset describes the profit from assets.

EPS= Earnings per share represents the per share earnings.

NI= net income ratio extracts the portion of net income from the net sales.

Tobin Q= shows how much the market value of the company is with respect to total assets.

### 3.2.2 Independent Variables

STD= short term debt, how much the portion of STD in total assets.

LTD= long term debt, what is proportion of LTD in the T assets.

TD= total debt tells the total debt portion in total assets

PAY= pay-out ratio, how much DPS against EPS

POLICY= shows either the company has dividend policy or not.

### 3.2.3 Control Variables

GROWTH= How much growth at present compare to previous, in assets

SIZE= log of total assets

### 3.3 Regression Models

Following regression models are used

$$(ROA)_{it} = \beta_0 + \beta_1(STD)_{it} + \beta_2(LTD)_{it} + \beta_3(TD)_{it} + \beta_4(PAY)_{it} \\ + \beta_5(POLICY)_{it} + \beta_5(GROWTH)_{it} + \beta_5(SIZE)_{it} + \beta_{it}(1)$$

$$(ROE)_{it} = \beta_0 + \beta_1(STD)_{it} + \beta_2(LTD)_{it} + \beta_3(TD)_{it} + \beta_4(PAY)_{it} \\ + \beta_5(POLICY)_{it} + \beta_5(GROWTH)_{it} + \beta_5(SIZE)_{it} + \beta_{it}(2)$$

$$(NI)_{it} = \beta_0 + \beta_1(STD)_{it} + \beta_2(LTD)_{it} + \beta_3(TD)_{it} + \beta_4(PAY)_{it} \\ + \beta_5(POLICY)_{it} + \beta_5(GROWTH)_{it} + \beta_5(SIZE)_{it} + \beta_{it}(3)$$

$$(EPS)_{it} = \beta_0 + \beta_1(STD)_{it} + \beta_2(LTD)_{it} + \beta_3(TD)_{it} + \beta_4(PAY)_{it} + \beta_5(POLICY)_{it} + \beta_5(GROWTH)_{it} + \beta_5(SIZE)_{it} + \beta_{it} \quad (4)$$

$$(TOBINQ)_{it} = \beta_0 + \beta_1(STD)_{it} + \beta_2(LTD)_{it} + \beta_3(TD)_{it} + \beta_4(PAY)_{it} + \beta_5(POLICY)_{it} + \beta_5(GROWTH)_{it} + \beta_5(SIZE)_{it} + \beta_{it} \quad (5)$$

WHERE

$(STD)_{it}$  = Short term debt to total assets for firm i in year t.

$(LTD)_{it}$  = Long term debt to total assets for firm i in year t.

$(TD)_{it}$  = Total debt to total assets for firm i in year t.

$(PAY)_{it}$  = DPS to EPS for firm i in year t.

$(POLICY)_{it}$  = Either company has dividend policy or not

$(GROWTH)_{it}$  = Change in total assets

$(SIZE)_{it}$  = Log of total assets for firm i in year t.

$B_{it}$  = The error term

## 4. Results and Discussion

### 4.1 Descriptive Statistics

Descriptive statistics check out the normality of data into the statistical analysis. The average value (mean value) of return on equity is 39.22, similarly median has highest value in ROE and lowest is 0.43 in Tobin Q. The net income, Tobin q, EPS, ROA and ROE have minimum and maximum values are (-18.95, 96.3), (0.01, 17), (-22.96, 39.56), (-13.51, 33.41), (-110.33, 2128) respectively. The standard deviation for the net income, Tobin q, EPS, ROA and ROE are 15.17, 1.72, 9.76, 8.99 and 216.156 respectively. The table 1 result indicates that all the variables have positive skewness except the POLICY. The PAY, NI, LTD, TOBIN Q, STD, ROE, ROA and GROWTH are higher than 3 so they are called leptokurtic while the kurtosis value of POLICY,

TD, EPS and SIZE are lower than 3 so it calls platykurtic. The total number of observation of all variables is 107.

**Table 1 Descriptive Statistics**

	POLICY	PAY	NI	LTD	TOBINSQ	TD
Mean	0.663551	0.535732	9.538505	15.59402	0.788598	30.39682
Median	1	0.191898	6.52	11.63	0.43	27.51
Maximum	1	10.64286	96.3	64.56	17	75.72
Minimum	0	-0.18927	-18.95	0.02	0.01	0.08
Std. Dev.	0.474718	1.495875	15.17364	14.81398	1.723066	20.58986
Skewness	-0.69229	5.369702	2.078133	1.136323	8.011248	0.345983
Kurtosis	1.479264	32.8597	12.06438	3.866767	74.83163	2.135562
Jarque-Bera	18.85739	4489.258	443.3259	26.37641	24148.58	5.466237
Probability	0.00008	0	0	0.000002	0	0.065016
Sum	71	57.32329	1020.62	1668.56	84.38	3252.46
Sum Sq. Dev.	23.88785	237.1901	24405.37	23262.12	314.7093	44937.9
Observations	107	107	107	107	107	107
	STD	SIZE	ROE	ROA	GROWTH	EPS
Mean	15.02308	7.956075	39.22019	7.735234	13.84379	6.275888
Median	11.87	7.51	15.03	6.92	11.09	4.7
Maximum	63.4	10.47	2128	33.41	117.1	39.56
Minimum	0	6.07	-110.33	-13.51	-99.86	-22.96
Std. Dev.	13.06222	1.348497	216.1564	8.999653	28.49522	9.768823
Skewness	1.264351	0.523047	8.806883	0.518577	-0.76231	0.890864
Kurtosis	4.418489	1.763597	83.83437	3.552733	9.021958	5.124891
Jarque-Bera	37.47874	11.69422	30514.79	6.157853	172.0402	34.28332
Probability	0	0.002888	0	0.046009	0	0
Sum	1607.47	851.3	4196.56	827.67	1481.285	671.52
Sum Sq. Dev.	18085.89	192.755	4952699	8585.337	86069.6	10115.57
Observations	107	107	107	107	107	107

#### 4.2 Coefficient of Correlations

The table 2 shows that NI has negative relations with PAY, LTD, TD, STD and ROE and positive relations with other variables, Tobin q has negative relation with PAY, TD, SIZE, STD. ROE has positive relation with TOBIN Q, STD and TD. ROA has positive relation with



POLICY, TIBIN Q, ROE and NI. Similarly the other variables have also negative or positive relations among them, shown in the table 2.

**Table 2 Correlation Coefficients Matrix**

	Policy	PAY	NI	LTD	TobinsQ	TD	STD	SIZE	ROE	ROA	Growth	EPS
POLICY	1											
PAY	0.25	1										
NI	0.32	-0.06	1									
LTD	-0.56	0.01	-0.31	1								
TobinsQ	0.17	-0.02	0.34	-0.24	1							
TD	-0.59	0.07	-0.53	0.78	-0.32	1						
STD	-0.31	0.12	-0.47	0.10	-0.24	0.69	1					
SIZE	-0.08	0.08	0.15	0.17	-0.08	0.29	0.29	1				
ROE	-0.13	-0.04	-0.03	-0.13	0.03	0.01	0.16	-0.07	1			
ROA	0.41	-0.08	0.75	-0.39	0.40	-0.63	-0.55	-0.00	0.00	1		
Growth	-0.00	0.01	0.22	-0.10	0.10	-0.16	-0.13	0.05	-0.02	0.16	1	
EPS	0.43	-0.05	0.50	-0.35	0.36	-0.55	-0.48	-0.16	-0.04	0.80	0.10	1

#### 4.3 Hausman Test (1978)

The test of Hausman applied to check the model suitability i.e. either fixed effect model should be used or random effect model.

#### 4.4 Research Hypothesis

Hypothesis made for the selection of random effect model or fixed effect model is as under

Ho = REM (Random effect model)

H1 = FEM (Fixed effect model)

The significance level is 5% mean 0.05, if Probability is more than significance level then Ho will be followed, in case of lower probability from significance level, FEM will be prioritized. As no prob. Value is less than 0.05, so REM is best in other words Ho is favorable. And further more elaborated and detailed individual variable functionality is described in the following paragraphs. The Hausman test showed the results concerned with the EPS in which the value of  $\chi^2$  statistics related to the EPS is equal to 7.328092 insignificant at 0.3955. Analysis of fixed and random analysis data along with the significance values (probability) is done. The results of this NI net income related test shows that the random effect model has the value of  $\chi^2$  statistics

related to the NI are equal to 4.643812 insignificant at 0.7033. The data of fixed and random is analyzed along with the significance values (probability). The results of this return on asset related test shows that the Hausman test has the value of  $\chi^2$  statistics related to the ROA is equal to 5.980378 insignificant at 0.542. The values of fixed and random have been analyzed through Hausman test with respect to the ROE and in this calculated result, ch-square has value of 8.449562 and probability and insignificance is 0.2946. While applying Hausman test the results extracted out and in this calculated result, ch-square has value of 1.303526, probability and insignificance is 0.9883. All the results of the test have provided the suitable choice of hypothesis either which hypothesis has been chased. The aggregate results of all the dependent variables checked through the Hausman test are given in the table “3” below.

**Table 3 Decision about Hypothesis**

Model	Ho	H1	Prob. Value	Critical Value	Decision
EPS	REM	FEM	0.3955	0.05	REM
NI	REM	FEM	0.7033	0.05	REM
ROA	REM	FEM	0.542	0.05	REM
ROE	REM	FEM	0.2946	0.05	REM
TOBIN Q	REM	FEM	0.9883	0.05	REM

#### 4.5 Random Effect Model

The below available tables show the results of random effect model used the panel (Cross section random effects). In these models the level of significance is 5%. Table 4 defines the relationship of independent variable with EPS. STD has positive significant relationship with earning per share. LTD, PAY and SIZE are negative insignificant relation with EPS. And GROWTH, POLCY and TD have positive insignificant relation with earning per share. The value of R-square and adjusted R-square are computed as 0.4374 and 0.3976 respectively. Durbin Watson stat is 1.59888 and F statistic is 10.99.

Table 4 Performance Measurement by EPS

Variable	Coefficient	t-Statistic	Prob.
C	16.41411	1.72873	0.087
LTD	-0.73518	-1.67391	0.0973
STD	-1.15183	-2.68702	0.0085
TD	0.604172	1.401946	0.1641
PAY	-0.58819	-1.52607	0.1302
POLICY	2.333149	1.380807	0.1704
GROWTH	0.000391	0.019781	0.9843
SIZE	-0.0287	-0.0239	0.981
R-squared	0.437445	Mean dependent var.	1.947852
Adjusted R-squared	0.397668	S.D. dependent var.	6.58125
S.E. of regression	5.020939	Sum squared resid.	2495.773
F-statistic	10.99754	Durbin-Watson stat	1.598884

In the given table 5 which represents the relationships of the independent variables with respect to net income, it showed that only SIZE has positive significant relationship with NI. While LTD, STD has negative insignificant relation with NI. And TD, POLICY and GROWTH has positive insignificant relation with the NI. And the values of R-square and adjusted R-square are calculated as 0.371287 and 0.326833 respectively. Durbin Watson stat is 1.6565 and F statistic is 8.352077.

Table 5 Performance Measurement by NI

Variable	Coefficient	t-Statistic	Prob.
C	-24.7902	-1.61826	0.1088
LTD	-0.43073	-0.7999	0.4257
STD	-0.8282	-1.57516	0.1184
TD	0.140759	0.266479	0.7904
PAY	-0.4758	-1.00562	0.317
POLICY	0.655315	0.314389	0.7539
GROWTH	0.012702	0.521194	0.6034
SIZE	6.349533	3.288448	0.0014
R-squared	0.371287	Mean dependent var.	2.089271
Adjusted R-squared	0.326833	S.D. dependent var.	7.908301
S.E. of regression	6.378174	Sum squared resid.	4027.429
F-statistic	8.352077	Durbin-Watson stat	1.656511

In the given table 6 which represents the relationship of the independent variables with respect to return on asset. In this table STD has negative significant relation with return on equity, while all the other variables are insignificant. SIZE is near to significant but not because it is not less than 0.05. And further more GROWTH, PAY, LTD has negative insignificant relation with return on equity. Total debt is positive significant relationship with ROA. Here the values of R-square and adjusted R-square are calculated as 0.427355 and 0.376151 respectively. Durbin Watson stat is 1.427341 and F statistic is 10.1307.

**Table 6 Performance Measurement by ROA**

Variable	Coefficient	t-Statistic	Prob.
C	5.738216	0.808392	0.4208
LTD	-0.67188	-1.45822	0.1479
STD	-0.94395	-2.10051	0.0382
TD	0.459357	1.015533	0.3123
PAY	-0.49538	-1.22851	0.2222
POLICY	1.134792	0.64937	0.5176
GROWTH	-0.00011	-0.00553	0.9956
SIZE	1.535113	1.709318	0.0905
R-squared	0.417355	Mean dependent var.	3.348555
Adjusted R-squared	0.376158	S.D. dependent var.	6.718329
S.E. of regression	5.207102	Sum squared resid.	2684.277
F-statistic	10.1307	Durbin-Watson stat	1.427341

The data shown in the table 7 is related to the dependent variable Return on Equity and all the independent variables. Here only POLICY is significant and negatively relationship with the ROE other variables SIZE, GROWTH, STD and LTD has negative insignificant relation with the ROE, negative impact means inverse action against ROE. Here the values of R-square and adjusted R-square are calculated as 0.108367 and 0.045322 respectively. Durbin Watson stat is 2.63607 and F statistic is 1.718892. Here the SIZE is near to the negative significant relationship.

Table 7 Performance Measurement by ROE

Variable	Coefficient	t-Statistic	Prob.
C	242.598	1.780604	0.078
LTD	-22.9051	-1.28676	0.2012
STD	-16.2508	-0.93694	0.3511
TD	18.5817	1.062051	0.2908
PAY	3.840611	0.252814	0.8009
POLICY	-125.698	-2.05292	0.0427
GROWTH	-0.23557	-0.31266	0.7552
SIZE	-10.3408	-0.61782	0.5381
R-squared	0.108367	Mean dependent var	39.22019
Adjusted R-squared	0.045322	S.D. dependent var	216.1564
S.E. of regression	211.2012	Sum squared resid	4415989
F-statistic	1.718892	Durbin-Watson stat	2.63607
Prob(F-statistic)	0.113136		

In the given table 8 which represents the relationship of the independent variables with respect to Tobin Q, all the data represents the impacts of independents variable either negative or positive, with the significance and in significance variable measurements. Here in the following table 5, no independent variable is significant with the TOBIN Q, and LTD, STD, PAY and SIZE has negative insignificant relationship with TOBIN Q. Here the values of R-square and adjusted R-square are calculated as 0.046079 and -0.02137 respectively. Durbin Watson stat is 2.868007 and F statistic is 0.683167.

Table 8 Random Effect model results with TOBIN Q

Variable	Coefficient	t-Statistic	Prob.
C	1.653851	0.979025	0.33
LTD	-0.03586	-0.27275	0.7856
STD	-0.03808	-0.29709	0.767
TD	0.013697	0.106092	0.9157
PAY	-0.00064	-0.0056	0.9955
POLICY	0.0008	0.001626	0.9987
GROWTH	0.001761	0.305115	0.7609
SIZE	-0.01938	-0.0909	0.9278
R-squared	0.046079	Mean dependent var	0.423214
Adjusted R-squared	-0.02137	S.D. dependent	1.454864

		var	
S.E. of regression	1.46349	Sum squared resid	212.0384
F-statistic	0.683167	Durbin-Watson stat	2.868007

## 5. Conclusion

The conclusion in the basis of the results can be concluded, as PAY has negative weak insignificant relation with EPS while LTD has negative strong relation with EPS and STD has strong negative significant, SIZE has weak negative insignificant, PAY has weak negative insignificant relation with EPS. SIZE has strong positive significant, GROWTH has weak positive insignificant, POLICY has weak positive insignificant, PAY, LTD and STD has weak negative insignificant, TD has weak positive insignificant impact on the net income. Almost same results also shown in ROE and ROA but TOBIN Q showed more negative results. And other relevant results shows that capital structure portion (STD and LTD) has negative impact on performance (EPS, NI, ROA, ROE and TOBIN Q) of the firm, dividend policy (PAY) also has negative relationship with performance of the firm, results are relevant to the results of Saedi and Mehmodi, (2011) to some extent. At the same time a portion of capital structure (TD) has positive but insignificant relation with all the performance measures. And the dividend policy (POLICY) has also positive but insignificant relation with performance measure except return on equity which related to the PAY in an insignificant way. Long term and Short term debts impact more negatively to the firm's performance, and the results of this study shows that if the company does not focus on giving dividend then the performance of the firm also decreases in a way.

## References

- [1] A. Ajanthan, 2013, The relationship between dividend payout and firm profitability, international journal of scientific and research publications, vol. 3, ISSN 2250-3153.
- [2] Anders Kjellman, Staffan Hansen, 1995, determinants of capital structure, scand. J. Mgmt, vol. 11, PP 91-102.
- [3] Allen N. Berger, Emilia Bonaccorsi di patti, 2006, capital structure and firm's performance, journal of banking and finance, vol. 30, PP 1065-1102.
- [4] Ben Amoaka-Adu, Vishal Bulkaran, Brian F. Smith, 2014, Analysis of dividend policy dual and single class U.S corporation, Journal of Economics and Business, Vol. 72, PP 1-29.
- [5] Dimitris Margaritis, Maria Psiliaki, 2010, capital structure, equity ownership and firm performance, journal of Banking and Finance, vol. 34, PP 621-632.
- [6] Donald B. Keim, 1985, dividend yield and stock returns, journal of financial economics, vol. 14, PP 473-489.
- [7] Fisher Black, Myron Scholes, 1974, Effect of dividend yield and dividend policy on common stock prices and returns, Journal of financial economics, vol. 1, PP 1-22
- [8] Mahfuzah Salim, Raj Yadav, 2012, capital structure and firm performance, social and behavioral science, 65(12), PP 156-166
- [9] Mohammad Amidu, 2007, How does dividend policy affect performance of firm on Ghana stock exchange, investment, management and financial innovations, vol. 4, PP 103-111.
- [10] Oyvind Bohren, Morten G. Josefsen, Pal E. Steem, 2012, ownership of firms and dividend policy, Journal of Banking and finance, vol. 36, PP 2852-2864
- [11] Ramesh P. Rao, Raj Aggarwal, Takato Hiraki, 1992, Dividend yield and stock return, journal of economics and business, vol. 44, PP 187-200.
- [12] Richard Fairchild, Yilmaz Guney, Yordying Thanatawee, 2013, Corporate dividend policy in Thailand, international review of financial analysis (In press, accepted manuscript).

[13] Ronny Manos, Victor Murinde, Christophir J. Green, 2012, dividend policy and business groups, international review of economic and finance, vol. 21, PP 42-56.

[14] Samuel Fosu, 2013, capital structure, product market competition and firm performance, The quarterly view of economics and finance, vol. 53, PP 140-151.

[15] Thanwarat Suwana, 2012, impact of dividend announcements on stock return, social and behavioral sciences, vol. 40, PP 721-725.

[16] S. Hansen, 1989, Determinants of firm performance, Strategic management journal, vol. 10, PP 399-441.

[17] Supa Tongkong, 2012, key factors influencing capital structure decision and its speed of adjustment of Thai listed real estate companies. Social and behavioral sciences, vol. 40, 716-720.

