Investigating the Impact of Profit Sharing Policies on Company Growth Opportunities

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ABSTRACT

The goal of this research is to investigate the impact of profit sharing policies on company growth opportunities. Therefore, a hypothesis is provided for realizing this claim. Statistical population of this research is all industrial groups in Tehran Stock Exchange which have been active in 2013 in Stock Exchange. This research is applied in terms of the end of implementation, and causal-descriptive in terms of the way of implementation which is executed based on actual information of stock market and financial statement of accepted companies in Tehran Stock Exchange. In this research, by using required information of financial statements, Rahavardinovin software and stock exchange organization web site, set of required data for testing hypothesis is collected. For testing the research hypothesis, data from 113 companies during 2008–2013 is analyzed using regression models in the form of combined models, and the results show that profit sharing policies have significant and positive impact on company growth opportunities.

KEYWORDS

Growth opportunities, Stock return, Profit sharing policy, Financial leverage

INTRODUCTION

Today, following the competitive global economy, and rise of public awareness of financial issues and investment, capital market has attracted attention to itself more than ever. On the other hand, most of companies produce some goods and services with high quality and low cost in order to attract investors. Among this, some of companies also try to show a good appearance of the company by providing wrong and misleading information to maintain themselves in the competition level in order to attract investors. Therefore, the investors invest in a company which has had higher return than other companies or other investment sources, so in the investors’ point of view, efficiency is much valuable through changes in stock price and raising this price.

Rising in stock price can attract investors’ attention towards the company positively which this positive attention will cause to fund the company through loan and debt appropriately. Making decision about choosing an appropriate manager and evaluation of his performance can cause to good news in the security market that can lead to increased stock price. Also, the efficiency of the financial sector leads to allocation of scare resources efficiently to economic activity. Optimal allocation of resources in turn follows saving and investment and thus national economy growth close to the potential of economy [6]. Economists believe that financial markets play a key role in the development and economic growth. In their opinion, the difference in quantity and quality of provided services by financial institutions can pretend an important part of this difference in growth rate between countries [3]. All of above cases are not possible without measurement and evaluation. Thus, growth opportunities and change of the risk of investment efficiency due to volatility of macroeconomic variables can influence the investment factors [9]. In an open economy, services and capital is done between countries according to the volatility of companies stock return [1]; therefore, growth opportunities can affect main variables in export, import and sector of capital entry-and-exit [2].

Volatility of companies profit is one of the main factors in attracting new investors [4]. When the stock price of companies has experienced subtle changes, managers of companies look for implementation of some solutions to put this volatility in a positive direction [5]. Financial markets are one of the main markets in each country. The condition of these markets strongly affects the real economic sectors and is influenced by other sectors [10].

In fact, we can state that stock volatility and investment create a kind of risk in foreign trading sector which can disturb export, import and capital flows [7]. Therefore, appropriate orientation of stock price changes can provide an appropriate environment for production, trading and investment [3].

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According to importance of this issue, stock market acts as one of the evaluation indexes and economic situation of country which increasing of investment in this market and attracting investments in capital market needs to increase of stock market efficiency, reducing risk and creating good conditions for investment; on the other hand, since macroeconomic variable including inflation, oil price, and exchange rate have influence on stock market efficiency, so transparency of the relationship between financial variables and stock market can be a good solution for future managers and investors in order to make decision.

**RESEARCH BACKGROUND**

Yahyazadeh et al. (2013) in a research investigated the impact of growth opportunities in valuation of free cash flow. The results show that there is a positive and significant relationship between free cash flow and stock return while there are growth opportunities[11].

Mojtalabzadeh and Emamni- (2010) compared the error rate of capital assets pricing model and adjusted model for inflation for predicting stock return. As a result, the adjusted model has a less error coefficient in the estimation of asset return[8].

Dashmakz (2013) investigated the profit sharing policies dynamic using a random model, and concluded that profits sharing has inverse relationship with inequality amount of information and investment growth opportunity and it has direct relationship with cash flows.

Campbell et al. (2009) in a research investigated the institutional investment, stock return, and profit announcement. Research findings show that changes in assets of institutional stock is correlated positively and continuously with future stock return[10].

Chen and Hinsiri (2009) in the investigation on determinants of profit sharing policy in New Zealand found that profit sharing has a positive relationship with ownership distribution and a negative relationship with domestic ownership degree. They also concluded that sale growth causes to reduce profit sharing[3].

**RESEARCH HYPOTHESIS**

This research includes one hypothesis, and it is as follows:
Profit sharing policies influence on company growth opportunities.

**RESEARCH TERRITORY**

**Research spatial Territory:**
Spatial territory of this research covers all accepted companies in Tehran Stock Exchange.

**Research temporal territory:**
In this research, data of companies during 2008 to 2013 is used.

**Research subjective territory:**
Investigation of the effect of profit sharing policies on companies growth opportunities.

**VARIABLES AND RESEARCH MODEL:**

Research model is obtained from Ang and Bekret’s research (2007), and adjusted variables of the research are taken from Goydoline et al. research (2014) and estimated as follows:

\[
\text{roG}_i,t = \alpha_0 + \beta_1 \text{XD}_i,t + \beta_2 \text{Exp}_i,t + \beta_3 \text{Size}_i,t + \beta_4 \text{ORDS} + \varepsilon_i,t
\]

- \( \text{roG}_i,t \): growth opportunity
- \( \text{XD}_i,t \): profit sharing policies
- \( \text{Exp}_i,t \): asset variances ratio
- \( \text{Size}_i,t \): firm size

**WORDS EXPLANATION AND RESEARCH TERMINOLOGY:**

Profit sharing policies:
It is the way of profit distribution among company shareholders.

Growth opportunities:
It is the fields created corresponding to new investment according to the predictable limitation and company liquidity level.

Stock return:
Stock return in investment process is a driving force which motivates the investor and it is considered as a reward for him. This reward is composed of two parts, namely, received dividends and profit and loss of capital.

**Operational definition of dependent variable:**

Growth opportunities (roG1,t):

Growth opportunity is the market value of equity ratio in addition to book value of debts to book value of stock.

\[
\text{roG}_1,t = \frac{\text{book value of debt} + \text{market value of equity}}{\text{book value of assets}}
\]

**Operational definition of independent variables:**

Profit sharing policies (XD1,t):

In this research similar to Lipson et al. research (1998), to calculate profit division, it is used from the dividing profit ratio to total assets.

**Operational definitions of control variables:**

Assets variances ratio (Exp1,t):

Assets variances ratio is the changes leading to maintenance, continuing or increase of production capacity of goods and services, and they have future profitability for companies. Asset variances ratio is used for buying, constructing, optimizing and repairing stable assets. In this research proceeds Desho et al. (2008) research to calculate the assets variances ratio and it is calculated as follows:

\[
\text{AD-EX}_i,t = \frac{\text{assets variances ratio}}{\text{book value of total assets in current year}}
\]

Asset variances ratio (Δ asset 1,t+1) = (book value of asset in year \( t \)) – (book value of assets in year \( t - 1 \))
Stock return rate.
Stock return rate is calculated for selected companies annually as follows:
in which:
\[ P_{it} - stock \ price \ at \ the \ end \ of \ year \ t \]
\[ P_{it-1} = stock \ price \ at \ the \ end \ of \ year \ t-1 \]
\[ DPS: \ cash \ profit \ per \ share \ based \ on \ the \ stock \ number \ at \ the \ first \ of \ period. \]
\[ A= the \ percentage \ of \ capital \ increase \ from \ cash \ input. \]
\[ B: \ the \ percentage \ of \ capital \ increase \ from \ accumulated \ profit. \]
Financial leverage (\( O_{it} \)):
\[
R_{it} = \frac{(P_{it} - P_{it-1}) + DPS + (P_{it} - 1000)A + P_{it}B}{P_{it-1}} \times 100
\]

High ratio of financial leverage shows the increased debt to accumulated cash funds of company, and it is probable to cause to bankruptcy. High ratio of financial leverage shows that as debt increases, cash funds will decrease. According to this, the companies with more cash assets can cover these assets with cash funds level and they can decrease debts more. Lu (2007) and Uo (2000) concluded that there is a negative relationship between financial leverage and cash assets. Ferreira and Vilela (2004) indicated that the companies with more debts cannot save more cash. In this research, Zang (2011) research is followed in order to calculate financial leverage ratio (\( O_{it} \)) as follows:

\[
O_{it} = \frac{book \ value \ of \ total \ assets}{book \ value \ of \ total \ assets} \times \frac{stock \ return \ rate}{cost} \times \frac{capital \ growth \ opportunity}{policy} \times \frac{profit \ sharing \ policy}{opportunity} \times \frac{growth \ opportunity}{variable}
\]

Firm size (\( size_{it} \)): It is the natural logarithm of book value of total company assets (Chen et al. 2005).

As observed in Table 1, statistical community of research includes 678 companies –year and average of company growth opportunity is 1.768, minimum growth opportunity is 0.234, maximum growth opportunity is 15.028, and average of profit sharing policy is 0.002. Also, min and max for profit sharing policies is 0.006 and 0.59 respectively. Also, average of control variables, asset variances ratio, stock return, financial leverage and firm size is 0.33, 0.475, 0.636, and 13.452 respectively. Maximum control variable is 0.99, 4.685, 0.997, and 19.618.

** Inferential Statistics**

**Pearson correlation coefficient:**

In this part, using correlation coefficient, the relationship of research variables and correlation between them is investigated. The matrix of correlation coefficients between research variables is presented in Table 2.

<table>
<thead>
<tr>
<th>Firm size</th>
<th>Financial leverage</th>
<th>Stock return rate</th>
<th>Capital cost</th>
<th>Profit sharing policy</th>
<th>Growth opportunity</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.452</td>
<td>0.6264</td>
<td>0.4749</td>
<td>0.3359</td>
<td>0.0020</td>
<td>1.768</td>
<td>mean</td>
</tr>
<tr>
<td>13.439</td>
<td>0.6340</td>
<td>0.2383</td>
<td>0.2356</td>
<td>0.0006</td>
<td>1.3089</td>
<td>median</td>
</tr>
<tr>
<td>19.618</td>
<td>0.9978</td>
<td>4.6859</td>
<td>0.9989</td>
<td>0.0591</td>
<td>15.028</td>
<td>Max.</td>
</tr>
<tr>
<td>8.5377</td>
<td>0.0891</td>
<td>4.1286</td>
<td>0.0005</td>
<td>0.0000</td>
<td>0.2344</td>
<td>Min.</td>
</tr>
<tr>
<td>1.5208</td>
<td>0.1903</td>
<td>0.8025</td>
<td>0.2770</td>
<td>0.0045</td>
<td>1.4749</td>
<td>Standard deviation</td>
</tr>
<tr>
<td>678</td>
<td>678</td>
<td>678</td>
<td>678</td>
<td>678</td>
<td>678</td>
<td>No. of observations</td>
</tr>
</tbody>
</table>

As seen in Table 2, coefficient obtaining from Pearson test shows that there is a weak relationship and correlation between variables.

**Normality test**

For doing this research, ordinary least squares method is used in order to estimate model parameters, and this method assumes that research dependent variables have a normal distribution, since abnormal distribution of dependent variable does not provide accurate results. Therefore, normality distribution testing is necessary for this variable. Normality of the residuals of regression model is one of the regression assumptions which reflects the validity of regression tests; thus, normality of the dependent variable
leads to normality of model residuals (difference of estimated values from the actual ones). So it is necessary to control the normality of dependent variable before estimation of the parameters, and otherwise, one should take a suitable solution (including converting them) to normalize them. In this study, this issue is investigated through Jarque-Bera (J-B) statistics. In this test, null hypothesis and alternative hypothesis are as follows: if the importance level of statistics is greater than 0.05 (prob>0.05), the hypothesis based on the normality of variable distribution is accepted. In Table 3, J-B test results are presented.

<table>
<thead>
<tr>
<th>Tab. 3. normality test of dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kurto sis</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>0.039</td>
</tr>
</tbody>
</table>

As we can see in table 3, J-B statistics value and significant level are representing the normality of the dependent variable. Therefore, null hypothesis is confirmed based on the distribution normality (the rest are normal).

**INCONSISTENCY TEST OF VARIANCES**

One of the classical regression statistical assumptions is consistency of variance of residuals. If the variances are inconsistent, the linear estimator will not be unbiased and will not have the least variance. In this study, Arch test is used in order to investigate the consistency of variances. According to the importance level of this test which is less than 0.05, null hypothesis is rejected based on consistency of variance and we can say that model has inconsistency of variances problem. In this research, generalized least squares (GLS) estimation method is used to solve this problem.

Arch test is used to investigate consistency of errors variance which its results are shown in table 4.

**GOODNESS OF FITTING TEST**

Generally, research hypothesis is in the form of an edited hypothesis that each of them are tested and analyzed in the following. In Table 6, regression results are represented which examine the research hypothesis.

<table>
<thead>
<tr>
<th>Tab. 6. Results of goodness of fitting test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant level (p-value)</td>
</tr>
<tr>
<td>0.9413</td>
</tr>
</tbody>
</table>

| 0.9412 | 1 | Lagrange coefficient test |

As we can see in Table 4, F-test value and test value of Lagrange coefficient are related to all hypotheses which are less than critical value in statistical tables. So, null hypothesis is confirmed based on the consistency of errors variances. In the other words, there is no inconsistency of variances.

**F-LIMER TEST**

F-Limer test is used to examine the use of panel data with fixed effects against consolidated data method. Test hypothesis is as follows:

$H_0$: Pooled Model

$H_1$: Fixed Effect Model

Results of F-Limer test are shown in table 5:

<table>
<thead>
<tr>
<th>Tab. 5. F-Limer test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error level</td>
</tr>
<tr>
<td>0.6511</td>
</tr>
</tbody>
</table>

As we can see in the above table, according to this case that F-statistics of all models is significant in error level of 1%, consolidated data method is preferred to panel data method. Thus, if we accept $H_0$ hypothesis, in the following we can investigate test hypothesis.
Research hypothesis: there is significant relationship between profit sharing policies and company growth opportunities.

Result of this hypothesis show that there is a positive and important coefficient in error level of 5% for profit sharing policies (70.31, t = 59.47). This finding show that profit sharing policies positively affect the company growth opportunities, in other words, by increasing profit sharing, company growth opportunities increase.

The results of control variable test show negative impacts of firm size on company growth opportunities; Moreover, the results show positive impacts of asset variances ratio, stock return rate and financial leverage on company growth opportunities.

P-value of F-statistics for regression model is equal to 0.000 that according to error level of 5%, total estimated model is confirmed. Adjusted determination coefficient shows that 145% of dependent variable changes are explicable by research variables.

Durbin-Watson statistics value is 1.962 which represents that there is no continuous auto-correlation.

CONCLUSIONS AND SUMMARY OF THE RESEARCH FINDINGS

Results of research hypothesis show a positive impact of profit sharing policies on company growth opportunity and results show that by increasing the paid profit of dividend to shareholders, opportunity of the company for growth increases. Because by increasing the profit payment, investors tend to invest on the company in order to gain appropriate return, and according to appropriate financing through stock release, the company will grow. This result is consistent with results of Sanders and Meyer’s research (2014) and Govin and Chen’s research (2012).

REFERENCES