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The Effect of Stock Valuation on the Company's Management

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Abstract

One of the most significant issues in investment management is stock valuation. Investors and shareholders can value their own shares based on stock valuation models and make decisions on stock trading accordingly. This study attempts to examine the relationship between stock valuation and a company's management. In this regard, the present study uses field and library research methods, and examines 25 companies listed in Tehran Stock Exchange from the years 2009 to 2013 along with 125 observations. The results of this study suggest that managers' success in stock valuation primarily depends on the correct understanding of influential resources and it is recommended that managers increase the value of their company's stock by the proper use and combination of factors effective in stock valuation according to the information of the company.

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1. Introduction

Today, one of the most controversial issues in economic communities is the issue of stock valuation. Since it is carried out by major managers and shareholders of companies, it motivates them to conduct stock valuation with different types of models.

In order to develop an economic model for stock valuation, managers should have a correct understanding of the influential resources which itself is a key factor in a company's success in stock valuation. Therefore, these questions arise first: "what kind of relationship is there between stock valuation and corporate management?" "Is this relationship influenced by the resources?" In this study, only the models and viewpoints raised at the level of theory are discussed using financial statements.

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The methods and techniques which have been introduced for stock valuation in financial statements are only used as a theoretical framework and cannot help the managers determine the actual value of companies. Thus, using practical and scientific methods of valuation according to the local conditions and the set of factors that influence stock valuation of a company makes a significant contribution.

Along with the scientific and practical methods, some factors could be taken into consideration in stock valuation. These factors include: the conditions of industry, supply and demand for the company's products, domestic and global market, technology, company's life, product pricing and competitive status. Although these factors are qualitative, they can be explained as quantitative by using economic models. Since the stock valuation has become one of the important issues for the majority of investors and shareholders, this study aims to describe the proposed models in stock valuation and its relationship with management.

2. Review of Literature

In a study, Bani Mahd, Moradzadeh Fard and Naseh (2014) examined the institutional investors from a theoretical perspective and divided them into two groups: the first group involves the investors who have a commercial relationship with the company and the second one are the investors who have no commercial relationship with the company. The results indicated that the ownership of investment companies as major shareholders of the investee companies has a negative effect on the price per share, and reduces the value of the investee company's shares.

Nabavi Chashmi, Metan and Nasrollahi (2012) in a study investigated the role of institutional investors as a controlling force. This study shows that institutional investors monitor a company's earnings by controlling the managers and concludes that the arrangement of shareholders should be considered while using the financial statements. It is also recommend that minor investors reflect upon their decisions about buying these companies' shares and take into account the size and leverage of the company.

Hosseini, Karami and Abdzadeh Kanafi (2011) investigated the non-operating components of accounting earnings and analyzed its relationship with stock value. It has been concluded that operating and non-operating profits, forecast and stock valuation do not have similar functions and that non-operating profits that are used to forecast future earnings are more appropriate in valuation.

Heibati and Moradi (2011) examined the methods of stock valuation in the initial offering in Tehran Stock Exchange. Their purpose was to enhance the qualitative and quantitative development of these methods in companies listed in Tehran Stock Exchange

In an article, Pouria Nasab and Talaneh (1994) investigated the relationship between policy dividend and stock valuation. They found out that, based on the existing approaches (traditional theory, Walter, Gordon, and Radical models), each of which follows its own specific logic, policy and dividend have an impact on stock valuation.

Arslan and Zaman (2014) in a study examined the impact of dividend yield and price earnings ratio on stock returns (the companies listed in non-financial study of Pakistan). They examined 111 non-financial Karachi Stock Exchange in the period of 1998-2008. . They figured out that the size and the ratio of corporate earnings have a positive impact on stock value and that there is a significant relationship between dividend yield and stock value.

Gherghina, Vintila and Tibulca (2014) in a study investigated the relationship between corporate governance ratings and company values and examined the practical and empirical evidences of 100 top companies in NYSE and Nazdeek Stock Exchanges. Their purpose was to test the relationship between corporate governance ratings and value of all S&P 100 companies except for the companies in financial sector that use the data for the year 2013. By estimating the equations of cross-sectional regression, it has been concluded that there is not a relationship between corporate governance rating and firm value. Therefore, when making investment decisions, these rates should be considered with a certain confidence.

Wang and Zhan (2014) examined individual investor trading and stock liquidity. They came to this conclusion that the shares that are traded more intensely by individual investors have higher liquidity after being controlled in terms of other determinants of liquidity. Moreover, the positive impact of individual investor trading on stock liquidity is greater in the companies with more information asymmetry. As a result, individual investor trading reduces the information asymmetry and accordingly, enhances stock liquidity by reducing the information asymmetry.

Bissoondoyal Bheenick, Brooks and Treepongkaruna (2014) in a study investigated the impact of spillover effects on the stock markets. It can be said that this article studies the impact of changing independent rating in particular

country on the stock market of some countries that are closely related to individual pairs. The results of this study indicated that in general some countries may potentially have spillover effects whereas they may not have this potentiality individually.

3. Research Methodology

The methodology in this study is the descriptive method obtained through library studies. The study population in this study consists of 25 companies listed in the Tehran Stock Exchange from the years 2009 to 2013 along with 125 observations. These companies have the following characteristics:

- Companies whose period expires at the end of March.
- Their financial information is available in all the years of the study period.
- The investee companies examined in the study are not a part of investment group or banking industry.

3.1. Data Collection Tools

The following information sources and data are used for data collection.

- The library information, including examination of internal and external books and journals and searching the database and using the experiences of other researchers (studying articles and theses) to achieve theoretical foundation and review of literature.
- Using data from Tehran Stock Exchange in order to achieve the benefit, loss and balance sheet information.
- Software “Excel” has been used for data analysis.

4. Theoretical Foundations

Valuation is one of the concepts that has long attracted the attention of different schools of economics, investors and managers. In the new financial model, the purpose of management which is the representative of shareholders is creating value and wealth for shareholders. The knowledge of financial management is the knowledge which clarifies for us how to invest and increase the efficiency of financial resources. The allocation of financial resources in an enterprise requires familiarity with the quality of creating value and cash flows in future. Therefore, it could be said that the concept of value and act of valuation are one of the concepts that is interrelated with all financial activities including financing, investment and portfolio management, financial affairs of firms and their financial reconstruction and each of these activities somehow requires valuation in a part of its operating activities.

4.1. The Goals of Valuation Process

- The choice of stock
- Wholesale or retail initial public offering in the Stock Exchanges and OTC markets
- Wholesale or retail of stock in non-listed companies
- Assessment of events
- Evaluation of the company's strategy
- Active portfolio management of shares and assets.
- Collateral loans.
- The minimum price in the tender or participation in the auction
- Providing performance measurement indicators.
- Value creation.

4.2. Factors Influencing Stock Valuation

- **Government Spending:** some believe state ownership imposes expenses on companies which reduces the profitability and stock value. Of course, this type of ownership is seeking the financial resources that increase profitability and stock value.
- **The Political System:** each country influences the finance and corporate governance of companies and consequently their market value. There will be a negative relationship between management and its stock value if banks become the major shareholders of companies. However, if the shareholders are from investment companies, there will be a positive relationship between management and stock value. The difference lies in the fact that banks are involved in political issues and under the pressure of political parties but investment is an exception since it aims to increase the efficiency of the investee company. Therefore, the political system and the company's shareholders have a significant impact on the company's management.
- **Institutional Investors:** the concentration of ownership of a group of shareholders as institutional shareholders increases this kind of shareholders' control over the performance of investee companies' executives which itself enhances the stock value of a company as a regulatory and corporate governance mechanism. (Mani Mahd , Moradzadeh Fard, Naseh, 2014).The contrary is also possible since major shareholders may collude with the company's management and reduce the value of minority stock which in the long run reduces the value of company's stock. Institutional investors include insurance institutions such as Social Security Organizations, pension funds, commercial insurance companies as well as investment firms and the public sector and semi-public institutions.
- **The Financial Health of Managers:** companies' financial health is directly related to the level of institutional investors which means that the higher the level of institutional investors the higher financial health will be and the lower the level of institutional investors, the lower the financial health (Hosseini, Karami, Kanafi, 2011). Institutional investors can monitor the financial health of the company's management.
- **The Impact of Bonus Shares on Stock Valuation:** the evidences indicate that Iranian investors are interested in investing in companies that aim to issue bonus shares. A review of the financial books and articles shows that the rate of stock returns of companies that have distributed bonus shares is higher than that of other companies. Similarly, the wealth of the investors who used bonus shares is higher than that of those investors who used cash dividend. Financial experts have different opinions in this regard. Some believe that if the percentage of bonus shares is too low, the issue of bonus share increases the stock value of company. On the other hand, some believe that bonus share is worthwhile since it expands ownership, maintains liquidity in the company and increases the wealth of investors. Others believe that since the bonus issue will not affect the level of company's profitability and company's risk-taking, it does not have an impact on value of company and wealth of shareholders.

4.3. Types of Stock Valuation Models

- Intrinsic Value of Common Stock
- MVA Valuation Model
- Gordon Model
- Miller and Modigliani models
- Campbell- Shiller Model
- Kernel Model
- Glassman and Hassett Model
- Walter Model

We start to explain Gordon and Walter models

5. Gordon Model

Using the investment method of accumulated earnings, Gordon has proposed a model for stock valuation. He also follows the school of imperfect market and his model is based on the following hypotheses

- Accumulated earnings are the sole source of companies’ financing
- The company’s rate of return remains constant
- The growth rate of company depends on retained earnings and its rate of return. This hypotheses depends on the first two hypotheses
- Cost of capital is constant for companies but it is greater than the growth rate
- The company has an unlimited life
- There is no income tax. Gordon proposed it first for stock valuation but later he revised it for risk-taking. (Equation 1)

$$P_0 = \frac{E_0(1-b)}{k-br} \tag{1}$$

In which:

P_0 = Price per share at the beginning of Year Zero
 E_0 = Earnings per share at the end of Year Zero
 b = the percentage of retained earnings
 k = Rate of return expected by shareholders
 r = Return on investment
 br = The growth rate of earnings per share and per dividend
 As regards Gordon Model, it should be noted that:

- When the rate of return is lower than the discount rate ($r < k$), the price per share is reduced as soon as the debt/equity ratio (D / E) decreases.
- When the rate of return is equal to the discount rate ($r = k$), the price of each share of variations in debt/equity ratio is not affected.
- When the rate of return is higher than the discount rate ($r > k$), the price per share increases as soon as the debt/equity ratio reduces.

Gordon model is better understood and analyzed with an illustrative example. (Table 1).

Table 1: An Example of Gordon Model

Insolvent Company $r < k$	Ordinary Company $r = k$	Developing Company $r > k$
$r = 10\%$	$r = 15\%$	$r = 20\%$
$k = 15\%$	$k = 15\%$	$k = 15\%$
$RIs = 600 E$	$RIs = 600 E$	$RIs = 600 E$
0.25, then = b if	, then 0.25 = b if	0.25, then = b if
$P = (600 \times 0.75) / (15\% - (0.25 * 0.10)) = 3600 RIs$	$P = (600 \times 0.75) / (15\% - (0.25 * 0.15)) = 4000 RIs$	$P = (600 \times 0.75) / (15\% - (0.25 * 0.20)) = 4500 RIs$
0.50, then = b if	0.50, then = b if,	0.50, then = b if
$p = (600 \times 0.50) / (15\% - (0.50 * 0.10)) = 3000 RIs$	$p = (600 \times 0.50) / (15\% - (0.50 * 0.15)) = 4000 RIs$	$p = (600 \times 0.50) / (15\% - (0.50 * 0.20)) = 6000 RIs$

According to this example (Table 2), the variables of Gordon model have been extracted from the financial statements of 30 companies from the site “Caudal”.

Table 2. Variables Extracted from “Caudal” Site

r =20%	r =15%	r =10%	Company Name	Row
42188	37500	33750	Absal	1
55853	49647	44682	Hafari Shomal	2
55853	49684	44682	Azmayesh	3
141398	125687	113118	Dorood Siman	4
97245	86440	77796	Amin	5
42188	37500	33750	Iran Transfo	6
59025	52467	47220	Iran Darou	7
91028	80913	72822	hamadanglass	8
58875	52333	47100	Gorji Biscuit	9
31313	27833	25050	Pars Electric	10
45750	40667	36600	Paksan	11
277500	246667	222000	Kharg Petrochemical	12
60668	53927	48534	Kalbar	13
48113	42767	38490	Pegah Isfahan	14
10905	9693	8724	Polyacryl Iran	15
7185	6387	5748	Tehran Darou	16
77768	69127	62214	Jabir ibn Hayyan Pharmaceutical	17
52200	46400	41760	Chini Iran	18
22320	19840	17856	Razi Pharmaceutical	19
55500	49333	44400	Faravardehaye Tazrighi Iran	20
31463	27967	25170	Sanati Pars	21
71363	63433	57090	Loabiran Co.	22
28440	25280	22752	Iran Tire	23
149820	133173	119856	Faravardehaye Nafti Iran	24
48360	42987	38688	Loghman Pharmaceutical and Hygienic	25

According to the table above, it can be concluded that if the investor invests with a higher rate, the value of the company’s stock increases. Therefore, this variable is considered as an important factor in determining the stock value. Of course, the above model does not realize all the management’s desired results since a comprehensive investigation requires more research. However, one criticism that can be levelled at this model is that: it has not taken into consideration an important factor such as inflation rate which itself is a factor influential in the rate of investment.

6. Walter Model

James Walter follows the school of imperfect market and has proposed a model for stock valuation which based on that dividend policy affects stock value. His model is based on the following key hypotheses:

- Accumulated earnings are the sole source of companies’ financing
- The company’s rate of return remains constant
- The company’s cost of capital always remains constant
- The company has an unlimited life.

Based on the above four hypotheses, Walter has proposed the following formula of valuation. (Equation 2).

$$P = \frac{D + (E - D)r / k}{K} \quad (2)$$

In which

P = Market price per share

D = Dividend per share

E = Earnings per share

r = Internal rate of return

(E-D) = Accumulated earning per share

K = Capital cost rate

By simplifying the above model, it would be clear that the price of each share is obtained from the sum of two components as follows (Equation 3)

$$P = \frac{D}{k} + \frac{(E - D)r / k}{k} \quad (3)$$

The first component of the above equation represents the current value of unlimited flows of dividend and the second component represents the current value of unlimited flows of return on investment of accumulated earnings. The following points should be noted regarding the model of Walter:

- When the internal rate of return is greater than the cost of capital ($r > K$), the price per share increases as soon as debt/equity ratio (D / E) reduces.
- When the internal rate of return is equal to the cost of capital ($r = K$), the price per share will not be affected by the variations in debt/equity ratio.
- When the internal rate of return is less than the cost of capital ($r < K$), the price per share reduced as soon as debt/equity ratio increases.

Accordingly, Walther model presupposes that:

- the optimum ratio of payment of dividends for a developing company is zero ($r > K$).

$$\left(\frac{D}{E} = 0\right)$$

- debt/equity ratio is not important for an ordinary company ($r = k$).

$$\left(0 \leq \frac{D}{E} \leq 1\right)$$

- The optimum debt/equity ratio for an insolvent company ($r < k$) is equal to one.

$$\left(\frac{D}{E} = 1\right).$$

Through a numerical example, Walter Model will be better understood and analyzed. For example, in the following table, three strong, normal and poor companies are displayed (Table 3).

Table 3: An Example of Walter Model

Developing Company $r > k$	Ordinary Company $r = k$	Insolvent Company $r < k$
$r = 20\%$	$r = 15\%$	$r = 10\%$
$k = 15\%$	$k = 15\%$	$k = 15\%$
$RLS = 600E$	$RLS = 600E$	$RLS = 600E$
if RLS , then $= 600D$	if RLS , then $= 600D$	if RLS , then $= 600D$
$P = (600 + (0) \times 20\%/15\%)/(15\%)$ $= 4000 RLS$	$P = (600 + (0) \times 15\%/15\%)/(15\%)$ $= 4000 RLS$	$P = (600 + (0) \times 10\%/15\%)/(15\%)$ $= 4000 RLS$
if $D = 200 RLS$, then	if $D = 200 RLS$, then	if $D = 200 RLS$, then
$P =$ $(200 + (400) \times 20\%/15\%)/(15\%)$ $= 4889 RLS$	$P =$ $(200 + (400) \times 15\%/15\%)/(15\%)$ $= 4000 RLS$	$P =$ $(200 + (400) \times 10\%/15\%)/(15\%)$ $= 3111 RLS$

It can be concluded that despite being simple, Walter model is a useful tool to show the effects of dividend policy under different conditions.

7. Conclusion

The issue of stock valuation for attracting investors and achieving management success is of great importance since they can value their stock based on the proposed models in stock valuation and make decisions on its trading. In this article, the valuation models of Gordon and Walter have been examined. The investigation of these models indicate that the conditions of industry, company, supply and demand for the company's products, domestic and global market, the productivity achieved by the current financial activities of company, technology, and company's life, new product pricing, competitive status and company's risk-taking in valuation should be taken into account. However, each of these current model has some shortcomings and drawbacks, therefore, they cannot be used with 100% confidence level because there are some varying hidden factors such as economic factors (inflation) which have not been investigated in these models. According to the theoretical issues in the factors affecting stock valuation,

- the value of a company's stock increases if the above factors (government spending, political system, institutional investors, financial health of managers, bonus share) are used alongside in a proper manner according to the information available in the company.
- Managers' success in stock valuation primarily depends on the correct understanding of influential resources
- It is, therefore, recommended that managers increase the value of their company's stock using investment companies, institutional investors such as insurance firms, the bonus share issue as well as the models of Gordon and Walter with higher yields and more risk-takable qualities.

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