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Ratio of Market Value to Book Value of Equity and Liquidity Ratios

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A B S T R A C T

Investors require information, which is reflected on the financial statements of companies such as income statement and balance sheet, to obtain the stocks with higher returns and less risk. Sometimes stock returns are not reliable measure for shareholders' decisions. In such cases, the value created by the shareholder can be the best criterion for stock situation measurement. The ratio of stock market value to book value in such circumstances could reflect the above value. This ratio can also be a criterion for assessing the risk and profitability. Therefore, the overall objective of this study was to investigate the relationship between the ratio of market value to book value of equity and liquidity ratios of listed companies in Tehran Stock Exchange. The present study in terms of goal is application type and in terms of data collection method is descriptive and correlational type. All companies listed in Tehran Stock Exchange are involved in the research population and the least number of samples for testing hypotheses is 111 companies between the years 2009 to 2013. Significance test of the models is done through F and T statistics. The present study results indicate a significant relationship between the ratio of market value to book value of equity and current and quick ratios, and working capital.

Keywords: Financial Ratios, Current Ratio, Accounts Receivable Turnover, Inventory Turnover, Asset Turnover, the Ratio of Market Value to Book Value of Equity.

INTRODUCTION

For the economic development of every country, people must invest their surplus income(Blaikie, 2016; Coale & Hoover, 2015). Therefore, each investor needs information about the stock in order to achieve stock with higher return and less risk(Lewis, 2013).

When companies have losses, their performance cannot be assessed according to the ratio of P/*E*. In this case, the *P/E* ratio is not considered as a useful criterion to compare companies(Boyd & Runkle, 1993; Florio & Leoni, 2017). When the *P/E* and *P/E* ratios are used simultaneously, they present additional information from the companies' status in terms of their economic growth(Fang, Noe, & Tice, 2009). This ratio is dependent on the *ROE* future returns (return on equity) and the *P/E* ratio to the corporates earnings growth and in the investigation of the company, the combination of the two can indicate market expectations of future profitability compared to its current profitability(Danielson & Dowdell, 2001; Heikal, Khaddafi, & Ummah, 2014). In other words, the *P/E* ratio can play an important role in predicting the behavior of

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unexpected earnings. Also companies with high or low *P/E* are relatively flexible to show unexpected earnings and companies with medium *P/E* can show a steadier earnings(Bernard, 1994). According to Olson investigations *P/E* ratio should also be considered as a risk factor. Therefore, *P/E* ratio is related to basic financial factors and concepts(Fairfield, 1994).

Stock Exchange acts as a resources guidance channel and is capable of directing resources towards productive activities if the conditions are ready(Odekon, 2015). Degree of development and prosperity of the capital market as well as the potential and major role of Stock Exchange in collecting small and great saving sources in the national economy and leading them toward long-term economic activities can be very important in economic development of a country(Jahan Khani & Parsayian, 1997).

Among the issues considered in listed companies on the Stock Exchange are the financial behavior and what volume of financial structure includes debt and what volume involves equity(Gitman, Juchau, & Flanagan, 2015). Eventually an optimal financial structure leads to minimize the cost of financing or cost of capital and consequently increase the companies' stock market value.

Vosoughi, Derakhshan, and Alipour (2016) on a study entitled the investigation of the relationship between the ratio of market value to book value of equity and liquidity ratios of listed companies in Tehran Stock Exchange, showed that there is no significant relationship between the ratio of market value to book value of equity and liquidity ratios (current and quick ratios).

METHODOLOGY

With regard to the purpose and nature the research is an applied one and with respect to data collection method it is descriptive, and also because we want to assess the relationship and correlation between two or more variables, the analysis is correlational one. In fact, this research is a quantitative research that is conducted by analyzing the correlation between variables. The research includes variables such as current ratio, quick ratio, accounts receivable turnover as the independent variable and the ratio of market value to book value of equity as the dependent variable.

The study population includes all companies listed in Tehran Stock Exchange for a four year period from the starting of 2009 until the end of 2013. The main reasons for selecting Tehran Stock Exchange population are:

1. Information is clear.
2. Information is available to researchers more readily than other centers.

The sample includes 111 companies selected among 23 industries for a four year period from 2009 to 2013. These companies were selected simple randomly according to the following criteria:

1. Both required financial and non-financial information be available.
2. Their fiscal year is ended in March. The company's fiscal year should not be changed during the study, so that the calculated indices for different companies at the end of the fiscal year have the necessary time adjustment.
3. During the study period the companies should not stop their activities.
4. The number of trades in the company should not be less than 100 times.
5. Due to differences in the types of investment company's activities, these types of companies are not investigated in the study.

Companies that do not have even one of these conditions were excluded from the population.

Data used in this study are divided into two categories:

The first category is the data related to the theoretical and literature foundations of the research that is provided through the study of articles and different dissertations on the Internet and various publications by virtue of library research. The second category is the financial information of listed companies in Tehran Stock Exchange. Financial reports of the companies are extracted from Tehran Stock Exchange Organization site and Rahavard Novin database software.

In this study, using descriptive statistics such as mean and standard deviation data was evaluated. SPSS Software is used to increase the accuracy of the tests.

In this study, the intensity of the relationship as well as the type of the relationship (direct or inverse) was determined by correlation coefficient. In the case of normal distribution, Pearson's correlation coefficient was used. Selective approach to hypotheses testing was cross-sectional data regression. Significance test of the models is done through *F* and *T* statistics.

RESULT

Descriptive statistics table below include the variables of the study in the first column.

Table1. Descriptive statistics for research variables

Variables	Frequency	Min	Max	Mean	Std. Deviation
CR(Current ratio)	444	0.05	6.9	2.1238	1.32414
QR*(*Quick ratio*)*	444	0.00	3.54	1.1639	0.74828
ART(accounts receivable turnover ratio)	444	0.19	9.96	4.9303	1.72059
The ratio of market value to book value of equity	444	0.00	0.31	0.1141	0.07454

Table2. Data normality using Kolmogorov Smirnov Test

			The most difference			K-S	P - value
Variables	Mean	Std. Deviation	Absolute	Positive	Negative		
CR	2.1238	1.32414	0.059	0.059	-0.059	0.999	0.271
QR	1.1639	0.74828	0.062	0.062	-0.060	1.057	0.213
ART	4.9303	1.72059	0.028	0.028	-0.021	0.469	0.981

The result is an output that provides the number of data, the parameters in the investigation of the presence of distribution, the absolute of the maximum deviation, the most positive deviation, the most negative deviation, the statistic Z value, and the value of sig. As sig is more than 5% H0 is accepted and the claim of discounts normality is approved.

Pearson coefficient of the dependent variable (the ratio of market value to book value) relative to the independent variables.

Table 3. Pearson coefficients between the variables

Variables	Number	Pearson Coefficient	Sig.
CR(Current ratio)	444	0.31	0.00
QR(Quick ratio)	444	0.02	0.22
ART(Accounts receivable turnover ratio)	444	-0.24	0.01

Table 4. Regression variance analysis of the current ratio (CR)

Model	F	R	Sig.
Regression	5.325	0.31	0.022

Table 5. Statistically significance of the coefficients related to the current ratio (CR)

Model	T	Sig.
(Constant)	30.076	0.00
CR	2.308	0.022

Based on the coefficient table it can be seen that the values of t-statistic is equal to 2.308, which means the acceptance of the relationship between current ratio and the ratio of market value to book value of equity.

Table 6. Regression variance analysis related to quick ratio (QR)

Model	F	R	Sig.
Regression	1.492	0.02	0.223

Table 7. Statistically significance related to quick ratio (QR)

Model	T	Sig.
QR	1.221	0.223

Based on the coefficient table it can be seen that the values of t-statistic is equal to 1.221, which means the rejection of the relationship between two variables.

Table 8. Statistically significance related to accounts receivable turnover ratio (ART)

Model	F	R	Sig.
Regression	6.752	-0.24	0.01

Table 9. Statistically significance related to accounts receivable turnover ratio (ART)

Model	T	Sig.
ART	-2.598	0.01

Based on the coefficient table it can be seen that the values of t-statistic is equal to -2.598, which means the acceptance of the relationship between accounts receivable turnover and the ratio of market value to book value of equity.

CONCLUSION

Among the mentioned ratios in the hypotheses, as you can see, the hypotheses that are derived from efficiency ratios have been accepted and are significantly related to the ratio of market value to book value of equity. Activity ratios measure the company's using its assets to generate sales revenue. These ratios indicate whether the company has invested appropriately in the current and long-term assets. If the investments are excessive it means that funds used to purchase a particular property can be used for more effective purposes.

The results of this ratio show the time period that is taken to sell the bought or made goods and to collect its demands in terms of the day and it is used to calculate the required working capital. Prolonged treatment period compared to prior periods is considered undesirable because it indicates that the activity in one or more parts of the companies' workflow is decelerated.

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