



The Effects of Financial Index on Equity Returns in the Automotive Industry

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Abstract: The main purpose of for-profit companies is to maximize the shareholder wealth, or to profitable the companies. So, the company's profit has a great importance for executives and investors. In addition to the importance of the profitable run in privatization of state enterprises in the past few years, the public property companies and activation of Tehran Stock Exchange, it also provides the necessary of this study which it can be provides information to make decisions, directors, shareholders, investors, creditors, etc. In this paper, in addition to the aforementioned presentation, financial indicators correlated with equity returns will investigate. Anne ratio, inventory turnover ratio, accounts receivable turnover ratio is considered as an indicator of financial. The purpose of this paper is to examine the impact on the return on equity ratios in the automotive industry. For this purpose, all of the Stock Exchange which operating in automotive industry has been chose and the ratios calculated for a period of six years, 2006-2011 and correlations were calculated using SPSS software terms . The results show that there is a correlation between the mentioned parameters and return on equity, this it can be used as guidance for users of financial statements for the optimal decisions.

Keywords: Ratio, Anne Ratio, Inventory Turnover Periodic Ratio, Accounts Receivable Turnover

INTRODUCTION

Consumers and investors need information to make decisions and this kind of information can be done through the financial statements which is one of the sources of the needs of investors and consumers. Analysis of Financial Statements will be raising the decision-making power by using the recent information contained in companies financial statements .One of the tools of financial statement analysis is derived from the financial statements.

Financial ratio are important for first, these ratio are used by much of the interest groups. Secondly, it can be a make relation between the various aspects of an entity's financial position and better information on these aspects when

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compared are reported separately and provide a more attractive. Thirdly, to compare financial statements of different business units will increase. Fourthly, these are a useful tool for detecting problems and shortcomings rather than highlighting the cause of the problems¹.

Literature of Review

The use of financial ratios was formed in the nineteenth century in making decisions, However, the previous ((doctrine of proportionality)) was prepared in the human sciences but this time, the financial ratios used in the field of applied research and the degree of progress achieved in the course of the twentieth century during the 1920 decade, numerous articles published in the interest of financial gain. Most of the course is directly associated with the acceptance or rejection of the approach. Businesses, universities, institutions, analysts have to collect data to determine the proportion of each industry. One of the recent researches conducted in this area of research as ((review key indicators of economic and financial profitability of companies in the cement Pakistan)) which is done by Zubairi Jamal in 2010². The purpose of this study was conjunction with the indicators selected to assess profitability consistent with the theory of supply dictates, for each variable. He introduced return on equity and return on assets as the main indicators of profitability (the dependent variable). While the average of stock price, current ratio, long term debt valued in particular, GDP growth and equity are chosen as independent variables. Figures 12 to 20 Cement Co. Karachi Stock Exchange, in the framework of statistical methods to a 4-year period has been analyzed. The results confirm the conventional theory shows that only GDP growth (an external factor), have a significant effect on the profit while none of the variables have no a statistically significant association in 2005 and 2008³.

Statement of the problem

Financial statement analysis makes corporate executives, owners, investors, creditors and investors aware of the current and future financial situation of the companies and makes judgments about it. In the light of the analysis of financial statements that some people seal heart of the future performance of corporate⁴.

Financial statement analysis a year, it gives little information that it may not be enough to break a year to comment. To this end, it seems necessary that financial condition of the institution for many years useful. Therefore, in this study, we have a 6-year period between in recent years, because of the possibility of a better comparison have chosen to provide to users⁵.

All of interest groups and users of the forms of financial statements are interest to the analysis of financial statements.

The ownership of cooperative companies is in the hand of large group of shareholders who are interest to the profit and profit run in different year's interests and have attention to real equity and obviously focused on their ultimate benefit and its value is updated⁶.

Potential investors interested in real and nominal value of shares the profit research and trends, and stock returns.

Analysis of financial statements from the standpoint of creditors are different in short-term and long-term creditors .the short-term creditors have attention to cash. Thus, the current assets and capital circulation and the process are important for them. Whereas Long-term creditors have attention to fixed assets, the value of specific policy and institutional capacity to engage in deposit liabilities⁷.

The granting of credit and loans, more attention paid to banks to review the financial strength, profitability and total savings business unit also occurs power and ability to pay are considered commercial units.

This study focus to the effect of selected variables return on equity firms. The aim of this study is to investigate the association ROE indicators selected Stock and thus help to interest group and users of financial statements to determine the return on equity is the use of indicators^{8,9}.

Shareholders and stakeholders interested in identifying factors return on equity requirements. Some of these authorities, or other internal factors and external factors, some of are investigating the effects of financial index on equity returns is checked¹⁰.

The Importance of Research

The final results of the financial and operational activities of the company for a certain period are deducted net income or earnings after tax. These activities can management decisions or a result of internal factors and there are external environment.

The main purpose of the for-profit companies is to maximize shareholder wealth and or in other words the company is profitable, so, for managers and investors, corporate profitability is high importance.

In addition to the importance of the profitable run in privatization of state enterprises in the past few years, the public property companies and activation of Tehran Stock Exchange, it also provides the necessary of this study which it can be provides information to make decisions, directors, shareholders, investors, creditors, creditors, etc.

In this study, the return on equity firm affected by or related to the financial and economic indicators checks can be selected and thus interest groups will guide the decisions taken.

The external analysis, by people outside the company, such as creditors, shareholders or analysts, investment banks and credit institutions, given the limitations of information financial terms, but can be trusted to provide interested persons and institutions.

Ratios will be determine the factors which cause to the success or fail of the company .Also, the company can be attributed to strong and poor, valid or invalid identified. After a period of several years can be attributed to changes and the reasons for success or failure of their future achieved and the relationship between

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information different periods in a company's financial method for the preparation of the next year the company chose.

The financial analysis assumed that underlying future is in the past, and thus, if past efforts and experiences have been reflected in the financial basis of and the results obtained are guide decisions about the future.

Research Objectives

In this study, we intend to effect some return on equity of financial indicators to check stock, s elected indicators, Anne ratio, and inventory turnover ratio and proportion an accounts receivable turnover requirements. As a result, according to research, the goals are defined as follows:

1. Determine the relationship between Annie and ROE.
2. Determine the relationship between inventory turnover ratio and return on equity.
3. Determine the relationship between the accounts receivable turnover ratio and return on equity.

The research hypotheses

According to the statement, and according to achieve the objectives, assumptions underlying this study is designed as follows:

First hypothesis: there is a significant correlation between equity returns and the ratio of instantaneous.

Second hypothesis: there is a significant relationship between the inventory turnover ratio and return on equity.

Third hypothesis: there is a significant relationship between the accounts receivable turnover ratio and return on equity,

Introducing the Variables of Research

According to the research hypotheses, variables are such as the instantaneous rate of inventory turnover, accounts receivable turnover ratio and return on equity .In this section, we summarize recent of these variables.

This ratio has obtained of adjusted current ratio and it removes the problem of it. In this calculation, the ratio is a part of current assets to conversion feature which is different alongside to another in terms of time. The items included in the inventory of any kind are paid. In this case, the quick ratio is calculated as follows:

Order X: Current Liabilities / receivable accounts Net + trade investments + cash = quick ratio.

Accounts Receivable Turnover Ratio

Through this comparison we can state the situation of accounts receivable assess and it shows that the liquidity of accounts receivable and represents have received an average over several times. This ratio is obtained from the following formula:

Order X = the average of receivable accounts / credit sales = accounts receivable turnover ratio

2 / h. D.Expiry of period+ H.D. First period = receivable accounts average

Inventory Turnover Periodic Ratio

The purpose of this ratio is: the assessment of the liquidity situation based on the expression of the inventory and it states that goods inventory has been sold several times during the year.

Calculating method of this ratio is as follows:

Order X = average of inventory / finished cost of sold goods = inventories turn over cycle

Rate of return on equity rate of return on equity is called ROE or rate of return, special value. With using of this ratio, company's profit for per Equity IRR is calculated for equity shareholders, So that "profit after tax" on "Equity" are divided. The value of this ratio is:

Equity / profit after tax = rate of return on equity

MATERIALS AND METHODS

Since the purpose of this paper is to discovery the correlation between financial indicators with return on equity which are calculated through accompanying financial notes and other documents released of exchange of research variables.

In order to eliminate the effects of different companies which are activated in industry in a variety of activities, all of activate firms in the automotive industry 2006-2011 years (27 companies) selected as the statistical population so, sampled has not been considered in this study.

In order the obtained results, the bias eliminated which has been created from unusual fluctuation or incorrect information, so, the variables selected for a six-year period from 2006 till 2011 and have been considered (time domain).

The next step is to calculate these ratio, required information extract from the financial statements and with entrance of data to software EXCEL, with using of the software functions, mentioned ratio have been calculated each year which became the basis for the statistical calculations.

Then, with using the software SPSS, independent variables associated with dependent variable is calculated. The next step, the correlation coefficient was used for the analysis of statistical and correlation due to this factor is calculated. Given that the ratio of circulating accounts receivable are considered as credit sales and companies will not be published their sales to cash or credit. In this case, the analyst will be assume total sales like as credit and this factor is one of the limitations of this paper.

Hypothesis Analysis

First hypothesis: there is a significant correlation between equity returns and the rate of return on equity.

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Table 1. Correlation between the instantaneous rate of return on equity and Anne Ratio

| | Current Ratio | |
|--------------------------|--------------------------|------|
| rate of return on equity | Pearson correlation | %543 |
| | Significance level (Sig) | %000 |
| | Sample size | 162 |

As can be seen in the above table the correlation coefficient between instantaneous rate of return on equity and Anne Ratio is 543% and we can conclude that the two variables have correlated positively. Also, so, there is a significant correlation between $5 \leq 000$ Sig the instantaneous rate of return on equity and Anne Ratio. Therefore, the Hypothesis is accepted with 95% confidence. In this case by increasing one variable, the other variable will also be increase.

Second hypothesis: there is a significant correlation between instantaneous rate of return on equity and Anne Ratio.

Table 2. Correlation of inventory turnover ratio and rate of return on equity

| | inventory turnover ratio | |
|--------------------------|--------------------------|------|
| rate of return on equity | Pearson correlation | %385 |
| | Significance level (Sig) | %000 |
| | Sample size | 162 |

As can be seen in the above table the correlation coefficient between instantaneous rate of return on equity and Inventory turnover ratio is 385% and we can conclude that the two variables have correlated positively. Also, so, there is a significant correlation between $5 \leq 000$ Sig the instantaneous rate of return on equity and Inventory turnover ratio Therefore, the hypothesis is accepted with 95% confidence. In this case by increasing one variable, the other variable will also be increase.

Third hypothesis: there is a significant correlation between circulating Account Receivable and rate of return on equity.

Table 3. Correlation of circulating Account Receivable and rate of return on equity

| | receivable Accounts circulating ratio | |
|--------------------------|---------------------------------------|------|
| rate of return on equity | Pearson correlation | %660 |
| | Significance level (Sig) | %000 |
| | Sample size | 162 |

As can be seen in the above table the correlation coefficient between rate of return on equity and receivable accounts circulating ratio is 660% and we can conclude that the two variables have correlated positively. Also, so, there is a significant correlation between % 5 < = %000 Sig the rate of return on equity and receivable accounts circulating ratio. Therefore, the hypothesis is accepted with 95% confidence.

As can be seen in the above table the P-Value for each of the hypotheses is less than 5% . Therefore linear regression is significant.

Table 4. Analysis and variance

| Hypothesis | | | Sum of squares | Degrees of freedom | Mean squares | F measure | significant degree |
|------------|---|------------|----------------|--------------------|--------------|-----------|--------------------|
| | 1 | Regression | 13.843 | 1 | 13.843 | 66.891 | %000 |
| | | Remaining | 33.112 | 160 | 0.207 | | |
| | | Total | 46.956 | 161 | | | |
| | 2 | Regression | 6.958 | 1 | 1.958 | 27.835 | %000 |
| | | Remaining | 39.997 | 160 | 0.250 | | |
| | | Total | 46.956 | 161 | | | |
| | 3 | Regression | 20.451 | 1 | 20.451 | 123.456 | %000 |
| | | Remaining | 26.505 | 160 | 0.166 | | |
| | | Total | 46.956 | 161 | | | |

To optimize the model R-Square (coefficient of determination in Table 5) should be noted.

Table 5. The result of Watson camera test on the independence of residuals

| Model | | Coefficient of correlation | Coefficient of determination | adjusted coefficient of determination | errors | Watson camera |
|------------|---|----------------------------|------------------------------|---------------------------------------|--------|---------------|
| hypothesis | 1 | 563% a | 295% | 290% | 45492% | 2/206 |
| | 2 | 385 % a | 148% | 143% | 49998% | 2/047 |
| | 3 | 660% a | 436% | 432% | 40701% | 2/076 |

Given the assumption R-Square is the third highest it can be used to predict the dependent variable (The automotive industry) optimization model is presented as follows:

$$CCC = + AR$$

$$ROE=32\%RTR + 297\%$$

Suggestions

The material can be suggested to other researchers as following:

Research-based Suggestions

1 - With regard to the specific indicators selected in this study (the instantaneous rate of inventory turnover, accounts receivable turnover ratio)the time for the

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return on equity can be recommended to users of the financial statements of the proportion calculate and process it in due to its conclusions.

2 - Given the strong correlation between the accounts receivable turnover ratio with return on equity, it is better the calculation and analysis should be considered.

B. Proposal for an Immediate Investigation

1 - It is suggested the effect of finance indicators (which has not been investigated in this study) on the return on equity will be reviewed.

2- According to the research results can be vary from one industry to another (Due to circumstances cane industry) so it is recommended evaluation and results in various industries have been done and obtained results be companioned.

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