Impact of Firm Specific Factors on the Stock Prices: A Case Study on Listed Manufacturing Companies in Colombo Stock Exchange.

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Abstract:

In Sri Lankan context, manufacturing sector has been recognized as an important strategic domain for socio-economic development and provides a significant contribution to the growth of the economy (Press Note Annual Estimates of GDP, 2012, p.5). Hence, it plays a vital role, which determines the driving force of the economy (Press Note Annual Estimates of GDP, 2012, p.5). Therefore, investors prefer to buy shares from listed manufacturing companies in Colombo Stock Exchange (CSE) to maximize their returns. Investment is a time-honored practice for increasing investor's wealth. Therefore, their main objective of investing funds in stocks is to maximize their returns. Returns consist of annual dividend and capital gains received as a result of raising the price of the stocks. Investors generally consider lot of micro and macro factors which affect the stock price before they make their investment. So, micro factors or firm specific factors are very important because these factors affect their investment decisions. In this study an attempt has been made to identify the impact of firm specific factors on share prices of listed manufacturing companies. This study is primarily based on secondary data that were extracted from the annual reports of the 20 manufacturing companies listed in Colombo Stock Exchange (CSE) from 2010 to 2014. Balanced Panel Data (BPD) of these 20 manufacturing companies were analyzed by using the Pearson's Correlation and Multiple Regression Model to identify the relationship between the selected firm specific factors and the stock prices. Further, primary data were collected from the Management of the selected companies through an open ended questionnaire and the data were analyzed by using the descriptive method. The study found a positive relationship between the selected firm specific factors of Dividend per Share (DPS), Earning per Share (EPS) and Net Assets Value per Share (NAVS) and stock price.

Key Words: Stock Price, Manufacturing Sector, Firm Specific Factors, Colombo Stock Exchange.

Introduction

Stock market boom is the reflection of a progressing economy: as the economy improves, companies make more money, and their stock value rises in accordance with the increase in their intrinsic value. A major assumption underlying this belief is that consumer confidence and consequent consumer spending are drivers of economic growth. Investors normally buy shares from listed companies that are expected to record strong growth rates in their earnings and pay good dividends. Therefore, most of the investors are looking for profitable companies to invest and get more returns. This makes expectations about earnings growth and dividend payments as key drivers of a company's stock price. It means expectations of the market have an impact on prices of the shares of the listed companies. Falling share prices can hamper firm's ability to raise finance on the stock market. Firms who are expanding and wish to borrow often do so by issuing shares. It provides a low cost way of borrowing more money. However, with falling share prices, it becomes much more difficult. Therefore, listed companies pay high attention on price changes in shares.

Stock exchange of a country is very important in the country's economic growth. In stock exchange, one of the fundamental research issues is stock price efficiency. So this study is very important for a considerable number of parties such as domestic and foreign investors, fund managers, mutual funds, Central Bank of the country etc. Further, investment is a time-honored practice for increasing inventor's wealth. Normally there are two types of investors in the market as risk averse and risk taker investors. Risk taker investors always prefer to take the risk through investing in the risky investment. But in case of risk averse investors, they always prefer to invest their fund in riskless of low risk investments. Somehow, their main objective of investing money in shares is to have more returns. Returns consists of two sections namely dividend earned annually and the capital gain received as a result of rising stock prices. So investors highly consider any change in stock price which may significantly affect the returns of the inventors.

Colombo Stock Exchange Guarantee Ltd (CSE) is responsible for the operations of the stock market within Sri Lanka. Sri Lankan stock market dates back to 1896 but it did not attract worldwide attention until mid 1980's. The CSE is still s small and

growing market when compared to the US, UK, Japan and other developed markets in the world. The CSE was reported as the best performing market in 1990 and 2009. There are two types of markets available in CSE namely primary market and secondary market. The primary market is where companies create securities and floats them to the public for the first time. This is called Initial Public Offering (IPO). The secondary market is the place where majority of the true stock trading occurs. In secondary market, investors' trade previously owned securities. Somehow, inventors invest their funds in financial securities in CSE to get competitive and satisfactory returns. As at 24th January, 2015 the CSE had 295 listed companies representing 20 sectors with the combined market capitalization of Rs. 3200.54 billion and it also has branches across the country in Kandy, Matara, Kurunegala, Negombo, Jaffna, Ratnapura, Hmbantota and Anuradhapura. So stock market in Sri Lanka operates more efficiently. In recent years, many people are playing the stock market", buying and selling stocks in hopes of making quick profits. Further, new technology such as internet, e-communication has played a big role in several ways. Specially, it has made e-trading accessible, easy and inexpensive for anyone with a computer and modem. In addition it provides us very rapid and free access to huge amount of financial information.

Somehow, every investor must consider two type of information when they make investment decisions. They are macro factors (External factors to the firm) and micro factors or firm specific factors. These factors can be a signal to stock market participants to analyze the future expected returns from investing in stocks. Out of this main information micro factors or firm specific factors or variables can significantly affect both returns as well as stock prices. Many individuals as well as institutional investors in Sri Lanka like to deal with stock exchange by investing their funds in stocks. But many of them do not have much knowledge about its operations and share price fluctuations and factors affecting to those changes and fluctuations. Because of this reason most of them loss their earnings' ability in many situations. Therefore, measuring impact of firm specific variables on stock prices or predictability behavior of stock returns at CSE has long been an interesting query for all.

Taimur Sharif, Harsh Purohit & Rekha Pillai, (2015) conducted a research on analysis of factors affecting share prices: a case of Bahrain Stock Exchange. This study is

instrumental in identifying the main determinants affecting share prices in the Bahrain financial market. The study analyzed a panel data set of 41 companies listed in the Bahrain stock exchange for the period 2006-2010. The year 2006 was used as the first year of data collection as most of the companies were incorporated in 2005. Since the Bahrain bourse witnessed a turbulent period during the first half of 2010 due to political unrests causing 25.5% slump in the aggregate value of traded shares in the first half of 2010 and 7.59% drop in the Global Bahraini Index in the following year, the post-2010 period was deliberately ignored in this study. The estimation method was based on pooled OLS regression with robust standard errors, fixed effects and random effects models. Eight firm specific variables namely return on equity, book value per share, earnings per share, dividend per share, dividend yield, price earnings, and debt to assets and controlled by firm size, have been studied to infer their impact on market price of shares in the respective market. The results indicated that the variables return on equity, book value per share, dividend per share, dividend yield, price earnings, and firm size are significant determinants of share prices in the Bahrain market. A high R^2 (0.80) revealed under both the applied models further documents the significant impact of these variables on the market price of shares. This suggests that investors can make optimum investment decisions and be assured fair returns if they consider these determinants which have evolved to be the significant contributors to the market price of shares in Bahrain.

Khan (2011) conducted a research on the effect of dividend on stock price for chemical and pharmaceutical industry in Pakisthan. This study attempted to explicate the affect of dividend announcements on stock prices of chemical and pharmaceutical industry of Pakistan. A sample of twenty nine companies listed at KSE-100 Index was taken from the period of 2001 to 2010. Results of this study predicated on Fixed and Random Effect Model which was applied on Panel data to explicate the relationship between dividends and stock prices after controlling the variables like Earnings per Share, Profit after Tax and Return on Equity. The Results showed that Stock Dividend, Earnings per Share and Profit after Tax have a significant positive relation to stock market prices and significantly explicates the variations in the stock prices of chemical and pharmaceutical sector of Pakistan while Retention Ratio and Return on Equity have the negative insignificant relation with stock prices. This study further

showed that Dividend Irrelevance Theory is not applicable in case of chemical and pharmaceutical industry of Pakistan.

Cristiana Tudor, (2008) conducted a research on Firm-Specific Factors as Predictors of Future Returns for Romanian Common Stocks. This paper examined the relationship between stock returns and firm-specific ratios on the Romanian stock market for the period 2002 to 2008. Further, he investigated the explanatory power on future stock returns of market beta, financial leverage, book-to-market equity, size, the earnings-to-price ratio, ROA and ROE. He found that size has the most significant effect in capturing variations in stock returns over the whole period. The negative relationship between size and returns is persistent and the size effect is present on Bucharest Stock Exchange. E/P ratio has a strong positive impact on stock returns and it remains statistically significant through different regression models. Most of the variation in stock returns is captured by size and E/P ratio together. B/M ratio has a significant positive relationship with returns in the univariate regression, but loses its significance in the multivariate setting. Results indicate that beta lacks explanatory power even when its impact is examined alone in the regression analysis and therefore the use of beta as a measure of systematic risk on the Romanian market is unsupported. Also, the year effect is significant on the Romanian market, and the two-way fixed effects model that allows for the intercept to vary both across companies and in time provides a better explanation of the future stock returns on the Bucharest Stock Exchange.

The manufacturing sector provides a significant contribution to the growth of the economy and it is the largest subsector in the industry sector within the economy of Sri Lanka (Press Note Annual Estimates of GDP, 2012, p.5). Hence, this study is significant for the domestic and foreign investors who prefer to invest their surplus funds in manufacturing companies listed in CSE to analyze the relationship between firm specific factors and the stock price. Therefore, in this study an attempt has been made to identify the relationship between firm specific factors and the stock price of listed manufacturing companies. For this purpose, three main firm specific variables i.e. Dividend per Share (DPS), Earning per Share (EPS) and Net Assets Value per Share (NAVPS) were selected. In addition to this main objective, this study attempted to provide empirical evidence on the impact of firm specific factors on the stock price.

Therefore, an attempt is made to study the relationship between firm specific factors and stock prices.

Research Methodology

For this study both primary and secondary data were used to investigate the impact of firm specific factors and the stock price. The study is limited to the manufacturing sector of the CSE, which represents one of the leading sectors out of 20 sectors of the CSE. Therefore, secondary data was gathered from twenty (20) manufacturing companies, which were listed in the Colombo Stock Exchange (Guarantee) Ltd (CSE) in 2013. Further, the secondary data were mainly obtained from the Annual reports of the selected companies during the period of 2010 to 2014. In addition to that various sources such as CSE fact books, relevant articles, books and magazines etc were used to collect secondary data. An open ended questionnaire was developed and distributed among the top management within the selected sample to collect primary data. The collected data were analyzed in two stages. Firstly, descriptive way is used to describe the sample to make the study more informative, analytical and useful to readers. Secondly, Pearson Correlation Analysis is used to define whether firm specific factors are affected to the stock price. Next, the study analyzed the impact of firm specific factors on the stock price by using Pooled Ordinary Least Square (OLS) for panel data of 20 companies across five years to relax the restrictions of an amplylarge data set. The following multiple regression model is used in this study to examine the relationship between independent variables and dependent variable.

$$P_\alpha = \alpha + \beta_1 EPS_\alpha + \beta_2 DPS_\alpha + \beta_3 NAVPS_\alpha + \mu_\alpha$$

Where:

P	= Stock Price
EPS	= Earnings per Share
DPS	= Dividend per Share
NAVPS	= Net Asset Value per Share
β	= Regression Coefficients
α	= Intercept
€	= Error Term

This study is concerned with the impact of firm specific factors on the stock price. It aimed at identifying the impact of three main firm specific factors such as Earnings per Share (EPS), Dividend per Share (DPS) and Net Asset Value per Share (NAVPS) on stock prices. These three variables have selected as independent variables to analyze the impact of firm specific factors on stock price. The stock price is chosen as the dependent variable.

Results and Discussion

Descriptive analysis shows the mean and standard deviation of the different variables of interest in this study. It also presents the minimum and maximum values of the variables which help in getting a clear picture about the variables used in this study. Table 01 presents the empirical results obtained from the model using SPSS.

Table 01: Descriptive Statistics of Variables for Manufacturing Firms

Variables	Mean	SD	Minimum	Maximum
Market price per share	75.6256	63.19349	1.79	258.10
Earnings per share	4.8718	9.92694	-14.61	32.92
Dividend per share	1.7920	2.27033	0.00	10.00
Net assets value per share	60.9196	59.14894	-10.49	234.18
Valid N (list wise)	100	100	100	100

Source: 2010-2014 Annual Report Data, SPSS output

Table 01 summarized variables used in the present study for 100 observations. First, we analyze the MPPS. Maximum value of the market value per share is Rs. 258.10 with the mean value of market price per share of Rs. 75.6256. The majority of the listed manufacturing companies in CSE has stock price greater than their stated value. In addition standard deviation (SD) of Rs. 63.19349 indicates that higher variations among the market price per share. Average earning per share of the selected companies is Rs. 4.8718 with SD of Rs. 9.92694. This reveals that EPS deviated from mean to both sides by 9.92694. The minimum EPS is Rs. -14.61 and the maximum recorded as Rs.32.92. EPS is based on companies' earnings and therefore can have positive as well as negative earnings. The results show high dispersion of EPS among the companies. Somehow almost all of the investors highly use EPS as primary indicator to select an appropriate company for their investments. On average

companies pay a DPS per share of Rs. 1.7920 with a SD of 2.27033, implying that high variations in terms of DPS in the manufacturing companies in CSE. The DPS lies between a ranges from a minimum of Rs.0.00 to a maximum of Rs. 10.00. Some companies did not pay dividends in some years such as Richard Peris Exports PLC and Samson International PLC. Some paid a huge amount of dividends. The value ranges of NAVPS consist of minimum of Rs.-10.49 and maximum of Rs. 234.18. Some firms suffer from negative net assets. The reason for this situation is that some companies carry out their business mainly on debt capital. The average NAVPS is Rs. 60.9196, indicates that each share has a high amount of net assets with a SD of 59.14894, implying that a higher variation among NAVPS in selected companies.

Table 02: Pearson Bi-variate Correlation Coefficient

Variables	MPPS	EPS	DPS	NAVPS
MPPS	1			
EPS	.609**	1		
DPS	.421**	.565**	1	
NAVPS	.545**	.412**	.300**	1

Source: 2010-2014 Annual Report Data, SPSS output

** Correlation is significant at the 0.05 level (two tailed)

According to table 02, EPS, DPS, and NAVPS are positively related to Market Price per Share. Correlation coefficient between the MPPS of the firm's stock and EPS is 0.609, which is positive and it is highly significant. It means when EPS high the market price per stock also high. Correlation coefficient between the MPPS of the firm's stock and DPS is 0.421, which is moderately positive and it is significant. Correlation coefficient between the MPPS of the firm's stock and NAVPS is 0.545, which is moderately positive and significant. It means when the NAVPS high the market price per stock of the firm also high.

ANOVA Analysis

The significance value associated with the F test can be used to check the overall significance. Generally, the F test is used to determine whether a significant relationship exists between dependent and independent variables.

Table 03: ANOVA Analysis

Model	Sum of squares	Degree of Freedom	Mean square	F	P
Regression	93723.310	3	31241.103	14.095	.000(A)
Residual	101954.151	46	2216.395		
Total	195677.460	49			

Source: 2010-2014 Annual Report Data, SPSS output

Table 03 depicts that the regression model is significant (P-value < 0.01) and about 69.2% of the variation of price per share can be explained using independent variables (R squired is 0.692 in table 04).

Table 04: Model Summary

Model	R	R Square	Adjusted R square	Std Error of the estimate
Regression	.692(A)	.479	.445	47.07860

Source: 2010-2014 Annual Report Data, SPSS output

The regression results shows in table 05 could be applied to multiple regression equation to quantify the effect of independent variable and dependent variables.

Table 05: Regression Results

Dependent variable: Market Price per Share (MPPS)					
Parameter	**Un-standardized coefficient**		**Standardized coefficient**	**t**	**Significance (p)**
	Beta	**Std Error**	**Beta**	**Beta**	**Std. Error**
Constant	36.017	10.286		3.501	.001
EPS	2.682	0.863	0.421	3.107	.003
DPS	1.069	0.216	0.372	2.992	.004
NAVPS	0.372	0.125	0.348	2.968	.005

Source: 2010-2014 Annual Report Data, SPSS output

$$P = 36.017 + 2.682 \text{ EPS} + 2.171 \text{ DPS} + 0.372 \text{ NAVPS}$$

The model explains that the coefficient of EPS is positive ($\beta = 2.682$, P-value < 0.01). This implies that when the EPS increased by one rupee, price per share of the firm tends to increase by Rs. 2.682. Further, there is a significant positive relationship between DPS and price per share ($\beta = 2.171$ and P-value < 0.01). This implies that when DPS increased by one rupee, price per share of the firm tends to increase by Rs. 2.171. Moreover, the coefficient of NAVPS shows a significant positive relationship on price per share ($\beta = 0.372$ and P-value < 0.01). This says that when NAVPS increased by one rupee price per share of the firm tends to increase by 0.372 cents.

Second part of this study has been analyzed the data collected using a structured questionnaire. 70% of the managers in the sample have a well-defined or clear and documented methodology for identifying and assessing the firm specific factors which affect to stock price. They confirmed that firm specific variables are highly affected to their stock prices and therefore, they are in a position that the firm's specific variables are relevant for the determination of stock prices.

Conclusion and Recommendations

This study attempted to assess the impact of firm specific variables on stock prices using a five year (2010-2014) data set on 20 manufacturing companies listed in CSE. Considering the statistical results, it can be concluded that the manufacturing sector EPS, DPS and NAVPS highly influence the stock prices.

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