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MARKET EFFICIENCY AND ITS IMPACT ON SHARE PRICE: A STUDY OF LISTED MANUFACTURING COMPANIES IN SRI LANKA.

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Abstract

This research on "Market Efficiency and Its Impact on Share price: A Study of Listed Manufacturing Companies in Sri Lanka." it is designed to give some idea of the relationship between share prices and related variables such as dividend announcement and earning etc. Qualitative approach was utilized in this study, which is conducted by considering the Manufacturing companies. An association in the present study EPS, Share price and dividend announcement could be observed. In this research, AAR and CAR are analyzed based on dividend announcement and correlation and regression are used to identify the relationship between EPS and share price. Based on the quantitative study, EPS has greater impact on Share price. There is positive relationship between EPS and Share price. Dividend announcements aren't significant in pre period of announcement day. Dividend announcements are significant in post period of announcement day. There is no signaling effect in manufacturing sector companies. The announcement of dividend normally carries no surprise to the market. Evidence tends to conform that market reacts after the dividend announcement. There is positive relationship between dividend announcement and share price. This positive relationship can occur near to the dividend announcement. Informationare conveyed near to the dividend announcement. Sample selection had to be limited because of time & data availability is limited. If information flow is being delayed by CSE, can't take recent year information to research purpose. Decision of investors in selecting shares may be influenced by accounting information. But this study considers signaling effect of EPS and dividend announcement.

Keywords: Share price, Earnings per share, Dividend announcement.

Preamble

Now many investors invest their money in the shares. But in earlier days they didn't put theirs' money in shares because of fear and they can't know the procedures of the share trading. Many companies are issuing shares to public and they give dividend as a gain to those shareholders. Dividend announcement may or may not affect the share value or share price of the company. Many investors think that investing in shares is highly profitable investment than other investment.

In any country, capital market is an important body in contributing economic development. It has traditionally been viewed as an indicator or predictor of the economy. Investors care about market efficiency because stock price movement affects their wealth. More generally, stock market inefficiency may affect consumption and investment spending, and therefore influence the overall performance of the economy. In Sri Lankan CSE plays a major role in contributing much towards economic development. CSE is emerging trend in Sri Lanka.

Market efficiency can impact on the share prices & share volume. This research tries to explain the impact of market efficiency through dividend announcement and Earning per share of manufacturing companies on share price. Every sector contains many companies. Announcement of EPS & dividend may affect the share prices of the companies. Share prices may be increase or decrease. This research reviews how dividend announcement & EPS affect the market price per share. These studies are known as 'event studies'. Initially event studies will be undertaken to examine whether markets is efficient or not, in particular, how fast the information will incorporate in share price.

Statement of the Problem

One can argue that Sri Lanka have limited study on this issue, in light of the limited role of the stock market in the economy, but in this respect Sri Lanka is not too different from many other countries. Most of the works on the impact on earnings per shares and dividend announcement on stock prices pertains to the US market. Relatively little is known about other parts of the world, especially on the developing capital markets.

Earnings per share and dividend announcements influence the value of the firm had been well researched in the developed countries. This research is low in the developing countries. Earnings per share and dividend announcements are seen as signals from the company to financial market and shareholders. This study will attempt to examine how earning per share and dividend announcements affect the shareholders' value in Sri Lanka.

Objectives of the Study

The main objective of the study is to find out the impact of the market efficiency on share price inemerging market.To achieve the above main objective the following sub objectives are considered

- To identify the impact of dividend announcements in price adjustments,
- To identify the impact of Earning per share announcements in price adjustments
- To find out the efficiency of the Sri Lankan stock market.

Review of literature

Foster and Vickery, (1978) concluded that Stock dividends enable firms to capitalize their retained earnings into their stock accounts, but do not provide a distribution of accumulated firm wealth to shareholders. Stock dividends have no direct impact on cash flow; thus, in the absence of an indirect influence on cash flow, there should be no impact on stock prices when there is a stock dividend announcement. However, researchers have reported positive abnormal returns around announcements of stock dividends

If stock dividends have no impact on cash flows, there should be no impact on stock prices. While stock splits and stock dividends could be seen as purely cosmetic, research has instead shown that the market reacts positively to the announcement of stock dividends (Koski, 1998; Crawford and Franz, 2001; Firth, 1977). Similar reactions have been found by Bechmann and Raaballe (2007) **in Norway**. (Xi Wang et al., 2010).

In New York perspective, Scott and Keith ,(1996) . Note that for both the pre-event and post-event estimation samples, the reaction to dividend increase announcements in bear markets is larger than that fordividend increase announcements in bull markets. It is reasonable to suspect that this result may be driven in part by a difference in the size of the dividend increases between the bull and bear market phases. However, they also found that the average increase in dividend yield is actually larger in bull market phases than in bear market phases. This paper has found that the differential share price reaction to dividend increase and decrease announcements with respect to market phase. We find that market phase has a significant impact on abnormal returns around the announcement, and it appears that more information is conveyed by dividend change announcements.

In the respect of Atikaand Sugeng ,(2009) **in Indonesia,**EPS represents the capability of a company in making profit for each stock owned bystakeholder. He choose the variables like total stock and total earnings to calculate EPS.The reason why this variable is chosen as an independent variable is because thebigger the value of EPS, the more attractive the stock to be bought, and so increasing itsprice. On the other hand EPS has a very strong relationship and dominant effects to stock price.

Al-Dini, Dehavi, Zarezadeh, Armesh, Manafi and Zraezadehand. (2011) was studied the relationshipbetween financial variables (EPS,DPS, E/P) and the stock prices using fuzzylinear regression method. The empirical resultsof this research indicate that there is apositive and significant relationship betweenEarning per Share (EPS) and stock price ofthe company, **According to the Iran perspective.**

In the Nigerian perspective, Azeez and Oke, (2012) have conducted the study to test whether the Nigerian capital market is strong-form efficient. The main finding emerging from this study indicates that the Nigerian capital market is weak-form efficient, which led to the acceptance of the null hypothesis. This signifies that the capital market follows the random-walk hypothesis, implying that current stock prices fully reflect historical information. The policy implications of this analysis are that the NSE, as an emerging market, must be closely monitored to achieve an optimal maturity level. Investors must be aware that, in inefficient stock markets, heavy gains are just as likely as heavy losses. Furthermore, the Securities and Exchange Commission should take a leading role in regulating abnormal financial activities.

Bandara&Lalitha, (2002) investigates **inSri Lanka** that informational content of dividend announcements and analyzes the impact of dividend announcements by firm size and dividend growth using a sample from the emerging market of Sri Lanka. Consistent with prior evidence from developed stock markets. They find that dividends have significant information content in Sri Lankan stock market. Average market reacts positively to dividend announcements. The information content is stronger for the smaller firms and for firms announcing high dividend growth. They also find a considerable anticipatory effect for smaller firms, the largest firms and for firms announcing lowest dividend growth. The market takes considerable time to fully incorporate information contained in dividend announcements by the smallest firms, the largest firms and by firms announcing the highest dividend growth. Overall, the results are inconsistent with an informational efficient stock market.
Arulvel et al., (2011) According to the result of the study show that dividend content is not incorporated into the security prices. As dividend announcement is one of the most important and recurring publicly available

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information, the analysis in this study has shown that the Colombo Stock Exchange is slow in reflecting this in the share prices. The price adjustments continue even follow after the event day and the excess abnormal return illustrates before the announcements and event day. Therefore market is not quickly response to price adjustments with publicly available information and market exhibits learning lags in incorporating value-changing information contained in dividend announcement.

Ramesh, and Nimalathasan, (2011) investigated using the standard event study methodology. According their empirical results provided strong evidence of analysis of the market response by overall sample and firm sector (financial and non-financial) indicates that the most of the bonus issues impact on the stock market negatively. The findings of the market reaction bonus issue significantly impact on the share price of the CSE on the pre-announcement period rather than on the event day or post-announcement days. Bonus issues have no significant different impact on the financial sector Vs. non-financial sector. By conducting research, they indicate that the bonus issues negatively responses in the share price. The **Sri Lankan** stock market is negatively responses to the bonus issue announcement, because the Sri Lankan stock market is an inefficient market and the bonus issues are not made commonly.

In the Indian context,Rakesh, and Parikshit, (2007) defined that hypothesis of Market Efficiency is an important concept for the investors who wish to hold internationally diversified portfolios. With increased movement of investments across international boundaries owing to the integration of world economies, the understanding of efficiency of the emerging markets is also gaining greater importance. They test the weak form efficiency in the framework of random walk hypothesis for the two major equity markets in India for the period 1991 to 2006. The evidence suggests that the series do not follow random walk model and there is an evidence of autocorrelation in both markets rejecting the weak form efficiency hypothesis. According to this suggest that emerging market is not weak from efficient.

In the Pakistan context, Khan (2010) define that theEarnings per Share is calculated by subtracting preferred stock from net income and by dividing the resulting amount with the number of outstanding shares. It is considered as an indicator for measuring the profitability of the companies. His Results indicate that Cash Dividend, Retention Ratio and Return on Equity has significant positive relation with stock market prices and significantly explains the variations in the stock prices of chemical and pharmaceutical sector of Pakistan while Earnings per Share and Stock Dividends have negative insignificant relation with stock prices.

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Conceptualization

From the literature, the conceptual model has been developed by the researcher to carry out the research.

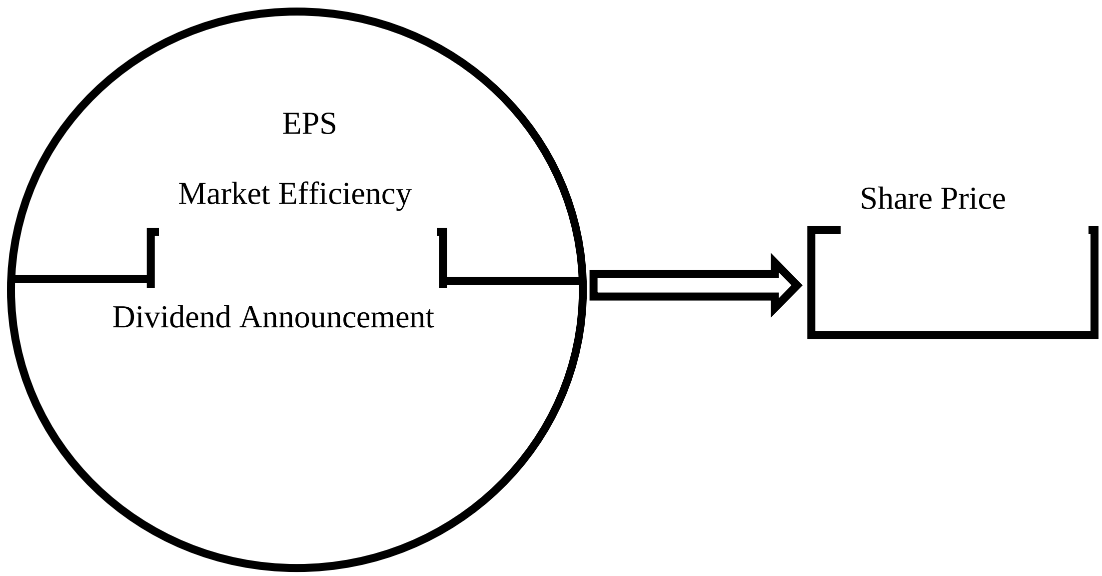

Figure: 1. Conceptual model

Hypotheses

Possible hypothesis are formulated based on conceptualization of research problem in order to achieve the research objective.

Hypothesis 1: There is a significant impact of earning per share on share price.

Hypothesis 2: There is Positive relationship between earning per share and share price.

Hypothesis 3: There is Positive relationship between dividend announcement and share price.
Hypothesis 4: The Sri Lankan Stock Market efficiently reacts to dividend announcement in the price adjustment.
Hypothesis 5: There is a significant impact of Market efficiency on share price.

Research Methodology

Data Sources

Secondary data only were used for this study. Secondary data were collected from, texts, journals and magazines. Researcher considers accounting (Quantitative information) and not considered about non accounting (Qualitative information). To perform this study, researcher select Manufacturing sector from 20 business sectors and 36 companies are available in this sector. So researcher selects those 10 companies for the study purpose. Researcher select data of the EPS on the years hand book. Dividend details collected from the web sites of the CSE. Researcher select last 5 year period for research purpose.

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Reliability & Validity of the Data

Primary information and data will be collected from CSE which is found that all information is accurate and realistic. Validation procedures involved initial consultation with expert researchers. The experts also judged the face and content validity of the data which were collected from CSE.

Research Model

This study uses the 'Standard Event Study Method' (Brown & Warner 1980, 1985) to estimate the abnormal returns (AR), average abnormal returns (AAR) around the dividend announcement (the event-day), as cited in Liu & Ramesh (2013). In the study, researchers have taken 21 days around the event (dividend announcement date), and study has designated -10,-9,-8 ……………,-1 as the 10 days prior to the event, 0 as the event day, and +1, +2, +3…………..,+10 days after the event and AAR and CAAR were computed for 21 days surrounding (lead and lag 10 days) the event-day.

Data presentation and analysis

Average Abnormal Return Analysis (AAR)

Table -1: Average Abnormal Return and T statistics

Day relative to dividend announcement	Standard deviation 0.07239	
	AAR	T(ARR)
-10	-0.0057	-0.07846
-9	-0.0114	-0.15720
-8	-0.0077	-0.10664
-7	-0.0052	-0.07128
-6	-0.0073	-0.10112
-5	-0.0178	-0.24617
-4	-0.0219	-0.30308
-3	-0.0407	-0.56168
-2	0.0261	0.36110
-1	-0.0246	-0.34038
0	-0.0290	-0.40088
1	0.1020	1.40903
2	-0.0272	-0.37574
3	0.1652	2.28153
4	0.0021	0.02846
5	0.2137	2.95207
6	-0.0153	-0.21080
7	-0.1771	-2.44619
8	0.0051	0.07073
9	-0.2883	-3.98287
10	-0.0122	-0.16826

Source – Survey data

Findings reported in table: 1 show that average abnormal return (AAR) on the day of dividend announcement was only 2.9 percent. Which was not statistically be significant, because t value is less than 1.96. This could be due to the fact that the information of dividend payment often leak out to the market a few days before the announcement made by the company. Prior to dividend announcement AAR also not significant, because of all t value are less than + / - 1.96. But, the post to dividend announcement AAR is also mostly insignificant, and some days AAR is also significant. Evidence shows, that t value of day 3 is 2.2815, day 5 is 2.9520, day 7 is -2.4461, day 9 is -3.9828. The above evidence t value is higher than +/ - 1.96, which are significant at 5% level. This suggests that market reacts later than the actual announcement of dividends. Prior to dividend announcement AAR is also insignificant. So, dividend announcement don't surprise the investors. But post of dividend announcement AAR is significant. Four days are significant in out of post selected 10 days. But in day +1 is also insignificant but near the significant AAR. So the investors react to dividend announcement immediately but less percentage. Few investors give most importance to the dividend announcement.

Compare the pre and post announcement day of dividend announcement, post +10 days AAR is mostly significant. Compare the -1 day AAR and +1 day AAR, +1 day AAR is higher value than -1 day AAR. Day +1 AAR is higher value than AAR of announcement day AAR. Investors give significant to day +3, +5, +7, +9 at 5 %. +1, day AAR is near to the significance level 5% (1.96).

Abnormal positive returns around the announcement of "Specially" designated dividend are consistent with the hypothesis that these dividends convey positive information to the market. Most AAR has negative value. But +1,+3,+4,+5,+8 have positive value. So investors react to dividend announcement before the 02nd day from announcement date and after the announcement day. So there is positive relationship between share price and dividend announcement is accepted because of investors react to dividend announcement before and after the announcement.

Correlation analysis

Correlation analysis is used to identify the strength of relationship between two variables EPS and MV. The following result is obtained from the SPSS and Excel packages.

Table5: Earning per Share and MV Correlation value

Correlations

		EPS	MV
EPS	**Pearson Correlation**	**1**	**.768****
	Sig. (2-tailed)		**.009**
	N	**10**	**10**
MV	**Pearson Correlation**	**.768****	**1**
	Sig. (2-tailed)	**.009**	
	N	**10**	**10**

****. Correlation is significant at the 0.01 level (2-tailed).**
Source: Survey data

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According to the above Table 5: correlationcoefficient value is 0.768, it indicates that there is strong positive relationship between EPS and MV, which is significant at 1%. MV is dependent variable and EPS is independent variable.

Regression analysis

Table 6: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.768[a]	.590	.539	22.15714

a. Predictors: (Constant), EPS

Source: Surveys data

Co-efficient of determination is a measure of a portion of total variance in the Y variable. That is explained or accounted for by the introduction of the X variable.

Here r =0.768

$R^{2} =$ 0.590

In this model R^2indicates that 59% of the MV is determined by the EPS. The remainder 41% of the MV is related to other factors. Here the value of an adjusted $R^2$is 0.539, Slightly less than the value of 0.590. It describes that MV is mostly determined by EPS.

Table 7: Coefficients of Earning per share and Market value

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	45.165	13.811		3.270	.011
	EPS	5.619	1.656	.768	3.394	.009

a. Dependent Variable: MV

Source: Surveys data

The following equation is created based on the dependent variable, from the Table: 4.5.2

Y = 45.165 + 5.619 X

MV = 45.165 + 5.619 EPS

Here if EPS (X) is increased by one unit, the MV (Y) increased by 5.619.

Based on that the Researcher can conclude that there is an impact EPS on MV, because P value is 0.009 < 0.01 (at 1% significant level).

Conclusion

The empirical work investigates the informational content of EPS and dividend announcements impact on the share price of the Manufacturing companies. EPS and dividend announcement are impact on Share price positively.

Finally, the conclusion can be made that market efficiency has the significant impact on share price

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