

## Performance measures and stock return; Evidence from Beverage Food and Tobacco sector of Sri Lanka

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### ABSTRACT

A performance measure is a numeric description of a firm's work and the results of its activities which have done and it is based on data. Several researchers have argued that Economic Value Added (EVA) is a superior performance measure compared to traditional accounting performance measures in deriving stock market returns while some other researchers confirming that traditional accounting performance measures provide more information on stock returns than EVA. This study explored the explanatory power of EVA compared with traditional accounting performance measures, Return on Equity (ROE), Return on Asset (ROA) and Earnings Per Share (EPS) in explaining the stock market returns of Food Beverage and Tobacco sector in the Colombo Stock Exchange (CSE). The sample period of the study spans from 2007 to 2012. Data was collected from the CSE data library and the annual reports of the sample companies. Correlation coefficient and Regression analysis were used for statistical analysis.

The study revealed that EPS and ROE have relatively high explanatory ability of stock return variations while EVA is not a significance measure to evaluate the variations of stock return and the ROA is the least performing traditional performance measure in explaining the variations of stock return. Further it revealed that ROA and ROE are highly correlated with each other. The findings of this study rejects the argument of the superiority of EVA over traditional performance measures and recommend using ROE and EPS in making investment decision in the Food Beverage and Tobacco sector companies in Sri Lanka.

**Key words:** EPS, EVA, Performance measures, ROA, ROE, Stock Return.

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### INTRODUCTION

Buying stocks is a means of investing in companies in which they want to own equity. The ownership positions are issued in instruments called as stocks. A share is a part ownership of a business and those are issued by companies to raise money. Investors study

performance measures of each company before investing in a company. Performance measures are based on data, and tell a story about whether an agency or activity is achieving its objectives and if progress is being made toward attaining policy or organizational goals. Prior researchers have identified most popular performance measures as ROE, EPS, and ROA in different scenarios (Theriou 2009; Hadded 2012). In addition to traditional accounting measures of business performance, a different model of measuring business performance has been developed, its name being - economic value added (EVA). EVA was originally defined by Stewart (1994) as the measure that properly accounts for all the complex trade-offs involved in creating value.

Stewart (1994), Lehn and Makhija (1996), Bao and Bao (1998), Athanassakos (2007) and Hadded (2012) have published studies in support of the superiority of EVA than traditional accounting measures. Chen and Dodd (1997) reported that EVA measure provides relatively more information than the traditional measures of accounting profits. They also found that EVA and RI (Residual Income) variables are highly correlated and identical in terms of association with stock returns. Hadded (2012) reported positive significant relationship between EVA and stock returns. Biddle (1998) found EVA performs relatively poorly in comparison with earnings in explaining stock returns. Ismail (2006) conducted a study on EVA and its association with stock returns and found that net operating profit after taxes and net income outperform EVA in explaining stock returns. Accordingly, this paper employs to identify the impact of above identified critical performance measures in order to explain variations in stock returns by testing if the relationship between EVA, ROA, ROE and EPS in the Sri Lankan context.

## **MATERIALS AND METHODS**

The study is consisted all listed companies under Beverage Food and Tobacco sector of Colombo Stock Exchange (CSE). Data is collected from company annual reports, CSE data library belongs to 2007-2012 years.

Average yearly return for each firm is calculated using  $R = ((P_t - P_{t-1}) + D) / P_{t-1}$  formula where; R reflects the return for firm in day t,  $P_t$  and  $P_{t-1}$ : Are the closing price in day t and t-1 respectively and D reflects dividends relevant to the period. EVA is calculated by  $EVA = PAT - (K_e * TE)$  formula where; PAT meant Profit after Tax,  $K_e$  refers to Cost of Equity and TE refers to Total Equity. The Capital Assets Pricing Model (CAPM) is implemented to calculate cost of equity ( $K_e$ ):  $K_e = K_{rf} + B(K_m - K_{rf})$  where;  $K_{rf}$  is rate of return for a risk-free security,  $K_m$  is market index rate of return and B is the estimated beta (systematic risk) for the firm. Earnings per share is calculated by; net income/shares outstanding, Return on assets is calculated by; net income / total assets and Return on equity is calculated by; net income / total equity.

Pearson correlation coefficient and regression analysis were applied to analyze data.

## **CONCLUSION**

In accordance with the analysis outputs EPS and ROE have relatively high explain-ability of reading the variations of stock return, EVA is not a significance measure to evaluate the variations of stock return, and ROA is the least performing performance measure in explaining the variations of stock return and ROE and ROA are highly correlated with each other. The findings of this study rejects the argument of the superiority of EVA over traditional performance measures and recommend using ROE and EPS in making investment decision in the Food Beverage and Tobacco sector companies in Sri Lanka.

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