An Empirical study of the value relevance of accounting information on market price in sub financial sectors in Sri Lanka

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Abstract:

The study focuses to analyze the value relevance of accounting information on investor's decisions. The research objectives are to identify the relationship between value relevance of accounting information and market price and to find out the impact of value relevance of accounting information on investor's decisions. For this study a sample of 21 banking, finance and insurance companies were used in Colombo Stock Exchange in Sri Lanka over period of 05 years from 2009 to 2013.Market price were used as dependent variable and return on equity , earning yield, net assets value per share, earning per share were used as independent variable. Correlation analysis were used to find out the relationship and impact of independent and dependent variables.

The result revealed that return on equity, earning per share and net assets value per share has a positive significant relationship on market price. Further and earning yield has no significant relationship with market price. Moreover finding revealed that the return on equity, earning per share and net assets value per share has significant impact on market price.

Keywords: Market price, Earning per share, Earning yield

1. Introduction

In recent times, the value relevance of financial information has been increasingly concerned by the researchers (Hellstron, 2005). It is one of the basic attribute of quality of the financial statements. The concept of the value relevance of accounting information is defined as the ability of accounting numbers to summarize the information underlying the stock prices, thus the value relevance is indicated that there is a relationship between financial information and market prices (Jianwei & Chunjiao, 2007).

Hendrick (1976) indicated that for financial reporting to be effective, accounting information should be completed as relevant and reliable. Further Germon &Meek (2001) explained that the primary purpose of the financial statements is to provide information about a company in order to make better decisions for users particularly the investors. It should also increase the knowledge of the users and give a decision maker the capacity to predict future actions. Therefore, relevance accounting information can be described as an essential pre requisite for stock market growth (Oyerinde, 2009). According to the previous studies, many researchers have conducted to identify relationship between market price per share as the dependent variable and a set of independent variables such as ROE, EY, NAVPS and EPS.

2 Statement of Research Problem

Value relevance on accounting information is a major issue especially in financial sectors and in order to explain the impact of value relevance on accounting information on market price. Different researchers had been carried out in different parts of the world especially in developing countries. Therefore, this study tries to find out the impact of value relevance of accounting information on market price of the Sri Lankan banking financial and insurance companies.

The financial sector in Sri Lanka is very important due to their critical role in the economy. The performance of the banking sector, which holds the dominant position in the financial sector in Sri Lanka (Financial System Stability Review, 2008). There are number of studies, which focused on other sectors in other countries but very few research have been conducted in Sri Lanka (Vijitha &Nimalathasan, 2014;Tharmila &Nimalathasam, 2013; Sulaima &Jahfer 2013;Perera &Thikawala, 2010). But financial sector has not been investigated in Sri Lanka. Therefore, the research problem is “Does Accounting Information has lost their relevance on market price in the banking, financial and insurance companies in Sri Lanka?

3 Research Questions

RQ1: What relationship exists between value relevance of accounting information and market price?

4 Research Objectives

The main objective of the study is to examine the relationship of value relevance of accounting information on market price in banking, financial and insurance companies in Sri Lanka.

5. Literature review:

The factors affecting on investor's decisions can be described as return, safety, liquidity and risk (Pandy, 2010). Risk can be divided in to two that is systematic risk and unsystematic risk. As the society is dynamic, changes occur in the economic, political and social systems constantly. These changes have an influence on the performance of companies and thereby on their stock prices. But these changes affect all companies and all securities in varying degrees. Economic and political instability adversely affects all industries and companies. When an economy moves into recession, corporate profits will shift downwards and stock prices of most companies may decline. Thus, the impact of economic, political and social changes is system-wide and that portion of total variability in security returns caused by such system-wide factors is referred to as systematic risk. Systematic risk is further subdivided into interest rate risk, market risk, and purchasing power risk (Kevin, 2008).

Jianwei & Chunjiao (2007) explained that the concept of the value relevance of accounting information is the ability of accounting numbers to summarize the information underlying the stock prices. The nature of accounting information can be point out as; it is designed to be used in making financial decisions

There are few studies related with accounting information and investor's decisions in Sri Lanka. Perera & Thikawala, 2010 conducted a study to examine the relevance of accounting Information on investors' decisions by using 6 commercial banks in Sri Lanka over the period from 2005-2009.They found thatreturn on equity (ROE) is significantly related with the share price. Further found that EPS, Earning Yield and ROE has not declined its value relevance and they explained that investors react according to the aggregate of accounting information, which published in financial statements. Finally they found accounting information has the ability to explain the share prices of the banking sector, in the CSE in Sri Lanka.

Sulaima &Jahfer (2013) investigated the value relevance of accounting information in Sri Lanka. It was proved that the accounting information is value relevant in Sri Lanka with sample of 100 companies listed in the CSE representing all the industry sectors except banking finance and insurance sector. Further they compare the Ohlson model with the alternative model developed in there study revealed that both models are value relevant to Sri Lankan data. They found that alternative model with operating cash flow per share is more informative than the original Ohlson's (1995) price model in Sri Lanka.

Tharmila &Nimalathasam (2013) examined the impact of value relevance of accounting information on market vulnerability of the listed manufacturing companies in Colombo stock exchange (CSE). The results revealed that earning per share (EPS) and net assets value per share (NAVPS) significantly impact on market vulnerability. Further EPS and NAVPS are significantly correlated with market vulnerability. Vijitha. &Nimalathasan (2014) conducted a research to provide empirical evidence concerning value relevance of accounting information such as earning per share (EPS), net assets value per share (NAVPS), return on equity (ROE) and price earnings ratio (P/R) to share prices (SP) of manufacturing companies in Colombo Stock Exchange (CSE). Findings of that research revealed that the value relevance of

accounting information has the significant impact on share price and value relevance of accounting information is significantly correlated with share price.

6 Methodology

The secondary data were used in this analysis. The main source of data was gathered from annual report of selected companies over period from 2009 to 2013. The researchers used convenient sampling technique. There are 48 companies listed under banking, financial and insurance sector, even though for this study 21 companies were selected.

For the sample selection the researchers used the following criteria,

- The company had been listed on the Colombo Stock Exchange during the period year from 2009 to 2013. Some companies were missing over the period of study.
- The firms have the necessary financial statement data.

6.1 Conceptual Framework

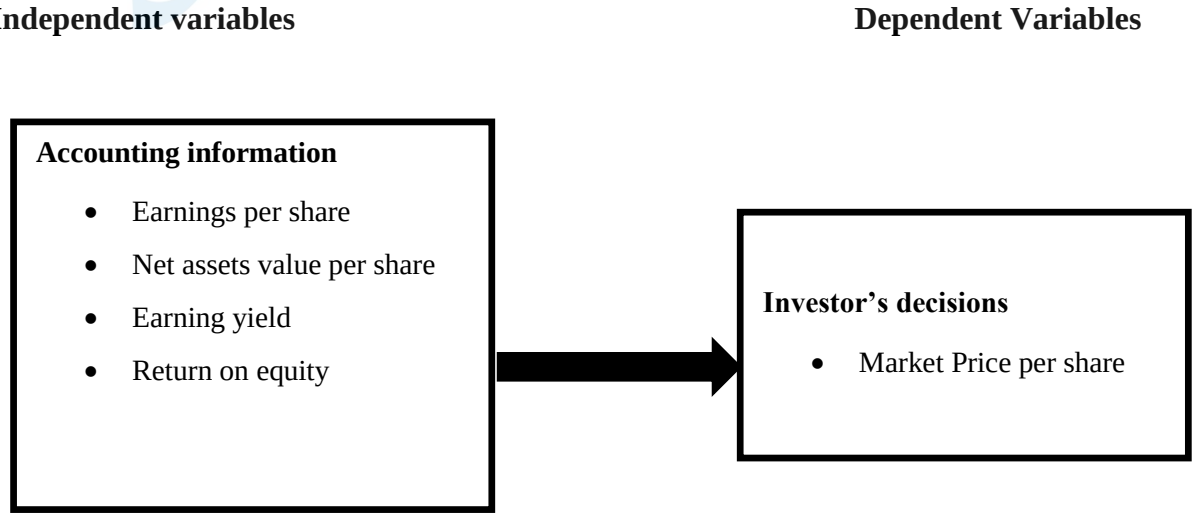

Figure 1: Conceptual Framework

6.2 Hypotheses;

The researchers developed four alternative hypotheses and four null hypotheses.

H_{a1}: There is a significant relationship of accounting information on MP

$H_{01:}$ There is no significant relationship of ac

7. Analysis

7.1 Descriptive Statistics

Table 1 provides the Summary of descriptive statistics information for the variables of banking and financial sectors. It presents the sample size minimum, maximum, mean, standard deviation, skewness and kurtosis for the variables.

Table 1: Results of the Descriptive Analysis of the Data for the Overall Sample

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statist	Statist	Statistic	Statistic	Statistic	Statist	Std. Error	Statist	Std. Error
EPS	105	-5.42	210.33	18.0611	31.39302	4.229	.236	21.207	.467
NAVPS	105	2.29	1364.89	122.5860	196.07740	3.656	.236	17.022	.467
ROE	105	-43.16	111.24	15.8207	17.18127	2.283	.236	14.516	.467
EY	105	-35.34	59.85	10.4528	11.43672	.686	.236	7.622	.467
MP	105	5.75	856.00	154.4067	182.13637	2.486	.236	6.411	.467
Valid N (list wise)	105								

Table-1 shows the Descriptive statistics for all variables. The average market price of the banking and financial institutions, which registered in Colombo Stock Exchange, is Rs. 154.40. The minimum market price is Rs. 5.75 and the maximum recorded as Rs. 856.00. Standard deviation of share price is Rs. 182.14. The distribution of market price positively skewed and it is 2.486 and the kurtosis is 6.411.Average earning per share of the banking financial and

insurance companies is Rs. 18.04. The minimum earning per share is Rs -5.42 and the maximum recorded as Rs. 210.33. Standard deviation of share price is Rs. 31.39. NAVPS's minimum and maximum values are Rs. 2.29 and Rs.1364.89 respectively. Its mean value is 122.57. The standard deviation is Rs.196.08. The distribution of earning per share and net assets value per share positively skewed and it is 4.229, 3.656 respectively and the kurtosis is 21.207, 17.022 respectively. Average return on equity and earning yield of the banking, financial and insurance institutions, which registered in Colombo Stock Exchange, is Rs. 15.82 and Rs. 10.45 respectively. The minimum return on equity is Rs. -43.16 and Rs. 111.24 recorded as the maximum. Further, Rs. -35.34 recorded as the minimum earning yield and the maximum is Rs. 59.85. Standard deviation of return on equity and earning yield is Rs. 17.18 and Rs. 11.44 respectively. The distribution of return on equity and earning yield positively skewed and it is 2.283, 0.686 respectively and the kurtosis is 14.516, 7.622 respectively.

7.2 Correlation Analysis

Table 2: Result of Correlation analysis of independent variables and dependent Variables for the Overall Sample

Coefficient of correlation

		MP	EPS	NAVPS	ROE	EY
EPS	Pearson Correlation	.768**	1			
	Sig. (2-tailed)	.000				
NAVPS	Pearson Correlation	.686**	.722**	1		
	Sig. (2-tailed)	.000	.000			
ROE	Pearson Correlation	.038	.147	-.047	1	
	Sig. (2-tailed)	.699	.134	.631		
EY	Pearson Correlation	.093	.404**	.283**	.500**	1
	Sig. (2-tailed)	.344	.000	.003	.000	

**. Correlation is significant at the 0.01 level (2-tailed)

Table-02 indicated the overall result of correlation coefficient of independent and dependent variables. Correlation coefficient between MP and EPS is 0.768, p value is 0.000 which is

less than < 0.05 which describes the significant positive relationship between market price and earnings per share. It explained that if EPS increased by 1 percent, MP increased by 0.768 percent, other hand, if EPS reduced by 1 percent, MP also reduced by 0.768 percent. Correlation coefficient of MP and NAVPS is 0.686, p value is 0.000 which is< 0.05 which describes the positive significant relationship between market price and net asset value per share. Correlation coefficient of MP and ROE is 0.038 p value more than 0.05 (p =0.699) which describes there is no significant relationship between MP and return on equity. The correlation coefficient between MP and EY is 0.344 which is higher than the 0.05.When consider about correlation coefficient of MP and EY is 0.093 which describes there is no significant the relationship between market price and earning yield.

7.2 Correlation Analysis of Sub Sample

7.2.1 Analysis of Commercial Banks

In here researcher analyses the eight commercial banks, listed in the Colombo stock exchange, over the period of 2009 to2013.

Table 3: Results of Correlation of Commercial Banks

		MP	EPS	NAVPS	ROE	EY
MP	Pearson Correlation	1				
	Sig. (2-tailed)					
EPS	Pearson Correlation	.477**	1			
	Sig. (2-tailed)	.002				
NAVPS	Pearson Correlation	.493**	.737**	1		
	Sig. (2-tailed)	.001	.000			
ROE	Pearson Correlation	.207	.669**	.081	1	
	Sig. (2-tailed)	.199	.000	.619		
EY	Pearson Correlation	-.220	.640**	.315*	.676**	1
	Sig. (2-tailed)	.173	.000	.047	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

It shows the relationship between market price to EPS, NAVPS, ROE, EY and MP variables of the Commercial Bank sector[1]. The result of correlation analysis of EPS and MP shows the significant positive coefficient of correlation 0.477, with p value of 0.002.The result of correlation analysis of MP and NAVPS shows the significant positive coefficient of correlation 0.493, with p value 0.001. The result of correlation analysis, which is point out that ROE exhibit weak positive relationship with MP. The coefficient of correlation of 0.207 indicates positive relationship between ROE and MP. The result of coefficient of correlation analysis, which is point out that EY exhibit weak negative relationship between EY and MP. The coefficient of correlation of -0.220 indicates negative relationship with MP. The co-efficient of determination is 0.771, that is 77.1 percent of the observed variability in MP is explained by the variability in the independent variables of EPS, NAVPS, ROE, EY respectively. The finding reveals that, other factors have only 22.9 percent impact on MP in commercial banks in Sri Lanka. This reveals that independent variables are the determining factors of MP in Commercial Bank in Sri Lanka.

7.2.2 Analysis of Financial Companies

In here researcher analyses the four financial companies, listed in the Colombo stock exchange, over the period of 2009 to 2013.

[1] In monetary sector all commercial banks which are listed in Colombo Stock Exchange

Table 4 Results of Correlation of Financial Companies

		MP	EPS	NAVPS	ROE	EY
MP	Pearson Correlation	1				
	Sig. (2-tailed)					
EPS	Pearson Correlation	.847**	1			
	Sig. (2-tailed)	.000				
NAVPS	Pearson Correlation	.873**	.895**	1		
	Sig. (2-tailed)	.000	.000			
ROE	Pearson Correlation	.188	.356	.090	1	
	Sig. (2-tailed)	.428	.124	.706		
EY	Pearson Correlation	-.052	.239	.120	.507*	1
	Sig. (2-tailed)	.826	.309	.616	.023	

**. Correlation is significant at the 0.01 level (2-tailed).

It shows the relationship between market price to EPS, NAVPS, ROE, EY and MP variables of the financial companies[2]. The result of correlation analysis of EPS and MP shows the significant high positive coefficient of correlation 0.847, with p value of 0.000. The result of correlation analysis of MP and NAVPS shows the significant high positive coefficient of correlation 0.873, with p value 0.000. The result of correlation analysis, which is point out that ROE exhibit weak positive relationship with MP. The coefficient of correlation of 0.188 indicates week positive relationship between ROE and MP. The result of coefficient of correlation analysis, which is point out that EY exhibit weak negative relationship with MP. The coefficient of correlation of -0.052 indicates negative relationship between EY and MP. The co-efficient of determination is 0.844 that is 88.4 percentage of the observed variability in MP is explained by the variability in the independent variables of EPS, NAVPS, ROE, and EY respectively. The finding reveals that, other factors have only 11.6 percent impact on MP in finance companies in Sri Lanka. This reveals that independent variables are the determining factors of MP in financial companies in Sri Lanka.

[2] All deposit taking institutions which are listed in Colombo Stock Exchange

7.2.3 Analysis of Insurance Companies

In here researcher analyses the five insurance companies, listed in the Colombo stock exchange, over the period of 2009-2013.

Table 5: Results of Correlation of Insurance Companies

		MP	EPS	NAVPS	ROE	EY
MP	Pearson Correlation	1				
	Sig. (2-tailed)					
EPS	Pearson Correlation	.662**	1			
	Sig. (2-tailed)	.000				
NAVPS	Pearson Correlation	.484*	.601**	1		
	Sig. (2-tailed)	.014	.001			
ROE	Pearson Correlation	-.374	-.184	-.462*	1	
	Sig. (2-tailed)	.065	.379	.020		
EY	Pearson Correlation	-.260	.497*	.167	.272	1
	Sig. (2-tailed)	.210	.012	.425	.188	

**. Correlation is significant at the 0.01 level (2-tailed).

It shows the relationship between market price to EPS, NAVPS, ROE, EY and MP variables of the insurance companies[3]. The result of correlation analysis of EPS and MP shows the significant high positive coefficient of correlation 0.662, with p value of 0.000. The result of correlation analysis of MP and NAVPS shows the significant high positive coefficient of correlation 0.484. The result of correlation analysis, which is point out that ROE exhibit negative relationship with MP. The coefficient of correlation of -0.374 indicate negative relationship between ROE and MP. The result of coefficient of correlation analysis, which is point out that EY exhibit negative relation with MP. The coefficient of correlation -0.260 indicate negative relationship between EY and MP. The co-efficient of determination is 0.899 that is 88.9 percent of the observed variability in MP is explained by the variability in the independent variables of EPS, NAVPS, ROE, and EY respectively. The finding reveals that, other factors have only 11.1 percent impact on MP in insurance companies in Sri Lanka. This reveals that independent variables are the determining factors of MP in insurance companies in Sri Lanka.

[3] All contractual Saving Institutions, which are listed in Colombo Stock Exchange.

7.2.4 Analysis of Other Specialized Finance Services

In here researcher analyses the four other specialized finance services companies, listed in the Colombo stock exchange, over the period of 2009 to 2013.

Table 6: Results of Correlation of Other Specialized Finance Services

		MP	EPS	NAVPS	ROE	EY
MP	Pearson Correlation	1				
	Sig. (2-tailed)					
EPS	Pearson Correlation	.599**	1			
	Sig. (2-tailed)	.005				
NAVPS	Pearson Correlation	.226	.520*	1		
	Sig. (2-tailed)	.338	.019			
ROE	Pearson Correlation	.100	.490*	-.170	1	
	Sig. (2-tailed)	.673	.028	.473		
EY	Pearson Correlation	.206	.693**	.209	.675**	1
	Sig. (2-tailed)	.382	.001	.377	.001	

**. Correlation is significant at the 0.01 level (2-tailed).

It shows the relationship between market price to EPS, NAVPS, ROE, EY and MP variables of the Other Specialized Financial Services[4]. The result of correlation analysis of EPS and MP shows the significant high positive coefficient of correlation 0.599, with p value of 0.005. The result of correlation analysis of MP and NAVPS shows the positive coefficient of correlation 0.226. The result of correlation analysis, which is point out that ROE exhibit weak positive relationship with MP. The coefficient of correlation of 0.100 indicates positive association with MP. The result of coefficient of correlation analysis, which is point out that EY exhibit weak positive relationship with MP. The coefficient of correlation 0.206 indicates positive association with MP. The co-efficient of determination is 0.517, which is 51.7 percent of the observed variability in MP is explained by the variability in the independent variables of EPS, NAVPS, ROE, and EY respectively. The finding reveals that, other factors have only 48.3 percent impact on MP of other specialized financial services in Sri Lanka. This reveals that

[4] All merchant bank, Leasing companies, Money Brokers and Venture capital companies which are registered under Colombo stock exchange

independent variables are the determining factors of investment decisions in Other Specialized Financial Services in Sri Lanka.

It can be observed that there is positive relationship between the EPS, NAVPS and the MP among the all sub samples.

Table 7: Summary of Correlation Coefficient (r) and Coefficient of Determination (r2)

Sector	Correlation Coefficient(r)	Correlation of Determination (r2)
Commercial Banks	0.878	0.771
Insurance companies	0.919	0.844
Financial Companies	0.948	0.889
Other Specialized Financial companies	0.719	0.517

(Source: Survey findings)

8. Conclusion

The result revealed that the accounting information such as EPS, NAVPS, ROE were significantly positively correlated with market price at 1% significance level and has strong significant positive correlation. The EY has no significant correlation with market price in the sub financial sectors. These findings were agreed with the previous studies as discussed in the literature Dontoh et al (2000), Hadi, (2004), Oyerinde, (2009), Perera &Thikawala, (2010),Sulaima &Jahfer, (2013), Abadi et al (2013), Tharmila &Nimalathasam, (2013), Vijitha &Nimalathasan, (2014).

9 Directions for Future Research

The results of the current study related to the finance sector. As such, future research may consider other sectors of CSE and extend the study and develop significantly results to the CSE. Further, this value relevant test does not distinguish between the accounting regulation and its actual implementation. This issue should be address in the future. Further investigation

of the influence of business culture for the value relevance of accounting information of market price is another area of research interest as global business cultures vary significantly.

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