

AN EMPIRICAL STUDY OF THE RELEVANCE OF ACCOUNTING INFORMATION ON INVESTOR'S DECISIONS

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ABSTRACT

Recent empirical work has suggested that Accounting Information (AI) have lost their relevance to investors significantly over the past few decades. AI contained in financial statements to be accurate and transparent enough to provide an indication of a business performance and financial condition to decision makers including investors. According to the present empirical evidence, investors tend to focus on information other than the published accounting information such as non financial information, short term capital gains and tend to be speculative or irrational for unusual events.

Therefore, this study attempts to addresses the relevance of AI on investor's stock market decisions in Commercial Banks registered under Colombo Stock Exchange (CSE) in Sri Lanka. The relevance of accounting data was measured by correlation coefficient between Market Price per Share (MPS) and selected accounting information such as Earning per Share (EPS), Return on Equity (ROE) and Earning Yield (EY). The data analysis was based on the AI in the published financial statements of Commercial banks registered under CSE. It covers a period of 5 years from 2006 to 2009.

According to the findings there is a relationship between Accounting Information and Market Price per Share. Further it revealed that investors still consider Accounting Information which contain in the published financial statements of Commercial Banks registered under CSE for the stock market decisions in Sri Lanka.

Key words: Relevance, Accounting Information, Investor, Colombo Stock Exchange, Market Price per Share, Earning per Share, Return on Equity, Earning Yield.

INTRODUCTION

Listed companies use financial statements as one of the major medium of communication with their stakeholders. Therefore, stock market regulators and accounting standards setters trying to improve the quality of financial statements in order to increase the transparency level in financial reporting. (Vishnani S., Shah B.K., 2008). Financial Statements may consist different type of information which can be named as Financial Information/Accounting Information and Non Financial Information/Non Accounting Information. Accounting Information are information which describes an account for a utility. It processes financial transactions to provide external reporting to outside parties such as to stockholders, investors, creditors, and government agencies ect. (http://www.nettedautomation.com/glossary_menue/glossary_tase2.html) and non accounting information are information which cannot be measured in monetary terms to make investment decisions by the investors. (<http://www.thefreedictionary.com/nonfinancial>) This type of investment is called as ethical investment. Financial information is essential in making sound investment decisions and it will reduce the informational asymmetry problem between the firm's managers and the investors (Hossain, D. M., Khan, A., Yasmin, I. 2004.) Though the investors use non financial information in order to make investment decisions, still conventional investors give more weight to financial information. According to the survey done by the Bosten College (2007), 62% of respondents favored financial information and only 38% favor to the non financial information for use in investment decisions.

Until approximately 42 years ago no arguments were encounter on relevance of Accounting Information. (Dung N.V., 2010). But, recent empirical studies explored that Accounting Information in published financial statements lost their relevance over the period of time. (Ball and Brown 1968, Oyerinde D.T., 2009). In United Kingdom, it has found that the financial statement was considered as the least effective means of communicating information. (Guthrie J., 2007). Further the researchers expressed that this findings backed by the theory of life cycle stage, high technology, rapidly changing business environment ect. (Dontoh et al 2000, Brown et al 1999: cited by Oyerinde D.T., 2009).

While there has been a number of studies on this topic in internationally (Ball and Brown 1968, Francis & Schipper, 1999, Vishnani S., Shah B.K., 2008, Dontoh A., Radhakrishnan S., Ronen J., 2000, Dung N.V., 2010, Hadi M.M., 2004, Oyerinde D.T., 2009) it is rare to find prior research in Sri Lanka specially in the banking sector. Therefore, this study fills the gap in literature by investigating whether there is relationship between accounting numbers and share prices in Sri Lankan banking sector.

LITERATURE REVIEW

Accounting plays a significant role within the concept of generating and communicating wealth of the companies. Financial statements still remain the most important source of externally feasible information on companies. Regardless of their extensive use and enduring advance, there is some concern that accounting theory and practice have not kept pace with rapid economic changes and high technology changes. (Meyer C., 2007) This situation affects the relevance of accounting information.

Number of previous studies explored that accounting information decreased their relevance over the period of time. (Francis J., and Schipper K., 1999) In the same time a number of researchers claim that accounting information has not lost its relevance. (Oyerinde D.T.,2009, Vieru, Perttunen and Schadewitz, 2005, Collins, Maydew and Weiss, 1997: cited by Oyerinde D.T.,2009)

For financial reporting to be effective, accounting information to be relevant, complete and reliable. (Hendricks, 1976) 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.(Germon and Meek 2001). 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 D.T., 2009)

According to the previous studies many researchers used relationship between Market price per share as the dependent variable and a set of independent variables. Ball and Brown in 1968, highlighted the relationship between stock prices and the accounting information disclosed in the financial statements.(Ball and Brown 1968). Ohlson in 1995

explained that the value of a firm can be expressed as a linear function of book value, earnings and other relevant information. The Ohlson model stands among the most important developments in capital market research. (Dung N.V., 2010) Francis and Schipper in 1999 had different approaches in this regard. That are The predictive view of value relevance (the accounting numbers are relevant if it can be used to predict future earnings, dividends or future cash flows),the information view of value relevance(the value relevance is measured in terms of market reactions to new information), fundamental analysis view of value relevance(the accounting information is relevance in valuation if portfolios formed on the basis of accounting information are associated with abnormal returns) and the measurement view of value relevance(the financial statement is measured by its ability to capture or summaries information that affects equity value. (Francis J., and Schipper K., 1999). Oyerinde D.T in 2009 explained the correlation between accounting information such as Earning Per Share (EPS), Return On Equity (ROE) , Earning Yield (EY)and Market Price per Share.(MPS)

RESEARCH PROBLEM

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) Presently, 235 companies representing 20 sectors listed at the Colombo Stock exchange in Sri Lanka. Out of this 235 companies, Commercial Bank of Ceylon Ltd, Hatton National Bank Ltd, Nations Trust Bank Ltd, Pan Asia Banking Corporation Ltd, Sampath Bank Ltd, Seylan Bank Ltd have registered and active in Sri Lanka as registered commercial banks in CSE. Commercial banks are largest owner of the total assets and deposit liabilities in the financial system (Dept. of Census and statistics ,Statistical Abstract, 2008) further the increase in total revenue is mainly attributed to manufacturing sector and secondly the banking sector.

There are number of studies which focused on investors of banking sector of countries specially in internationally. According to the Vishnani S.,Shah B.K., in 2008, Indian investors generally focused on short term capital gains and tend to be illogical for extraordinary events instead of using financial information in the financial statements in

stock valuation. (Vishnani S.,Shah B.K., 2008). Based on the Ohlson's model Dung N.V., in 2010 carried out his study on value relevance of financial statement information in Vietnamese stock market. The findings were contrary to the previous study and he concluded that financial statement information was not related to stock prices. (Dung N.V., 2010) Oyerinde D.T in 2009 carried out the investigation to find out the value relevance of accounting information in emerging stock market in Nigeria and he concluded that there is a relationship between market price and the accounting information. Further he concluded that without confidence in accounting information investors in the Nigerian stock market will not invest in stocks.

In this setting the research problem is as follows.

“Does Accounting Information have lost their relevance on investor's decisions in the banking sector in Sri Lanka?”

RESEARCH OBJECTIVE

Major objective of the study is to examine the relevance of accounting Information on Investors decisions.

METHODOLOGY

A sample for the study is a commercial banks registered under Colombo Stock Exchange such as Commercial Bank of Ceylon Ltd, Hatton National Bank Ltd, Nations Trust Bank Ltd, Pan Asia Banking Corporation Ltd, Sampath Bank Ltd, Seylan Bank Ltd.

Model specification

$$P = a + b_1E + b_2Y + b_3R$$

P = Average price per share

E = Earnings per Share

Y = Earning Yield

R = Return on Equity

Three single linear regression models and one multiple regression model has been developed.

The relationship between Share price and Earnings per Share

$$P = a + b_1E \longrightarrow 1$$

The relationship between Share price and Earning Yield

$$P = a + b_2Y \longrightarrow 2$$

The relationship between Share price and Return on Equity

$$P = a + b_3R \longrightarrow 3$$

The relationship between Share price and Earnings per Share, Earning Yield, Return on equity

$$P = a + b_1E + b_2Y + b_3R \longrightarrow 4$$

DATA ANALYSIS AND PRESENTATION

1. Descriptive statistics

Descriptive analysis for the sample is performed on the dependent variable (Market Price per Share) and the independent variables (Earning per Share, Return on Equity, Earning Yield). The analysis examines the mean, standard deviation and ranges of the data.

Table 1: Descriptive statistics for the period of 2005-2009

	N	Minimum	Maximum	Mean	Std. Deviation
Price of Share	30	7.50	204.25	77.32	62.81
Earnings Per Share	30	.90	30.80	10.0670	7.57977
Return on Equity	30	.13	20.63	12.6167	6.85869
Earning Yield	30	.07	31.67	7.3108	6.04702

During the period of 2005-2009, descriptive statistics for all variables shown in the table 1. The Average share price of the commercial banks which registered in Colombo Stock Exchange is Rs. 77.32. The minimum share price is Rs. 7.50 and the maximum recorded as Rs. 201.25. Standard deviation of share price is Rs. 62.81.

Average Earning per Share of the commercial banks is Rs. 10.07. The minimum Earning per Share is Rs.0.90 and the maximum recorded as Rs. 30.80. Standard deviation of share price is Rs. 7.57

Average Return on Equity and Earning Yield of the commercial banks which registered in Colombo Stock Exchange is Rs. 12.62 and Rs. 7.31 respectively.. The minimum Return on Equity is Rs. 0.13 and 20.63 recorded as the maximum .Further, Rs. 0.17 recorded as the minimum Earning Yield and the maximum is Rs. 31.67. Standard deviation of Return on Equity and Earning Yield is Rs. 6.86 and Rs. 6.05 respectively.

2. Inferential statistics

2.1 Correlation of data

Co variation or associations between each variable are as follows.

Table 2.1: Correlations between variables- Earnings per Share, Earning Yield, Return on Equity

	EPS	EY	ROE
EPS	1		
EY	-.339**	1	
ROE	.683**	-.213**	1

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

(Source: Survey findings)

As shown in the table 1, the correlation between two variables, EPS and EY is - 0.354, which indicates a negative relationship at 0.01 level of significance. At the same time, correlation between two variables EPS and ROE, is + 0.656, which point out a positive relationship. Negative correlation between ROE and EY is -.126 at a significant level of 0.01.

2.2 Regression analysis

Table 2.2, 2.3, 2.4 and 2.5 presents findings of regression analysis.

Table 2.2 : The relationship between Share price and Earnings per Share (1)

	R	R ²	Ad R ²
2005	.947	.896	.871
2006	.893	.798	.747
2007	.980	.961	.952
2008	.984	.968	.960
2009	.905	.819	.759

(Source: Survey findings)

According to the table 2.2, the R² is 89.6%, 79.8%, 96.1%, 96.8%, and 81.9% for 2005,2006,2007,2008 and 2009 respectively. This implies that Earning per share is able to explain 89.6%, 79.8%, 96.1%, 96.8%, and 81.9% variation in market price per share reported in 2005,2006,2007,2008 and 2009 respectively. In the year of 2006 R² is declined to .798 and increased it again in the subsequent two years. It has decreased by 0.149 in 2009 when comparing to the 2008.

Table 2.3 : The relationship between Share price and Earning Yield (2)

	R	R ²	Ad R ²
2005	.917	.842	.789
2006	.882	.777	.703
2007	.677	.459	.279
2008	.618	.383	.177
2009	.680	.462	.283

(Source: Survey findings)

The R² is 84.2%, 77.7%, 45.9%, 38.3%, and 46.2% for 2005,2006,2007,2008 and 2009 respectively. This implies that Earning Yield has an ability to explain 84.2%, 77.7%, 45.9%, 38.3% and 46.2% variation in Market Price per Share. According to the findings prior expectations confirmed in the years of 2005 and 2006. In the years of 2007, 2008

and 2009 , R^2 is declined significantly. This suggest that Earning Yield has declined their explain ability about Market Price per Share in later period.

Table 2.4 : The relationship between Share price and Return on Equity (3)

	R	R^2	Ad R^2
2005	.536	.287	.109
2006	.444	.197	-.004
2007	.435	.190	.013
2008	.742	.551	.439
2009	.471	.221	-.038

(Source: Survey findings)

According to the table 2.4, R^2 for the sample period 2005-2009 are considerably low. The R^2 is 28.7%, 19.7%, 19%, 55.1%, and 22.1% for 2005,2006,2007,2008 and 2009 respectively. This implies that 28.7%, 19.7%, 19%, 55.1%, and 22.1% variation in market price per share is explained by return on equity reported in 2005,2006,2007,2008 and 2009 respectively. Findings show that R^2 has decreased in the begging of the period and increased slightly in following periods. This suggests that Return on Equity has increased their relevance over the period.

Joint explanatory power of Earnings per Share, Earning Yield and Return on equity were analyzed in the table 2.5 follows

Table 2.5 : The relationship between Share price and Earnings per Share, Earning Yield, Return on equity (4)

	R	R^2	Ad R^2
2005	.914	.836	.590
2006	.828	.685	.214
2007	.996	.991	.978
2008	.999	.998	.996
2009	.913	.833	.583

(Source: Survey findings)

The results of the table 205 indicate that 83.6%, 68.5%, 99.1%, 99.8%, and 83.3% variation in market price per share is explained by financial information such as earning per share, earning yield and return on equity in 2005,2006,2007,2008 and 2009 respectively. This suggests that accounting information has ability to explain dependent variable. (Market Price per Share) In the year of 2006 R^2 is declined to .685 and increased it again in the subsequent two years. It has decreased by 0.165 in 2009 when comparing to the 2008. These findings were agreed with the previous studies as discussed in the literature. (Dontoh et al 2000, Hadi, M.M. 2004,Oyerinde 2009). But the overall findings in this study suggest that joint explanatory power of Earnings per Share, Earning Yield Return on equity in the model 4 above (Model specification) show the highest R^2 when compared to the other 3 models.

CONCLUSION AND RECOMMENDATION

This study has endeavored to establish the value relevance of financial information of listed banks in Sri Lanka. The overall results on accounting numbers presented in this study indicate that the Earning per Share, Earning Yield and Return on Equity has not declined its value relevance. Further it explained that investors react according to the aggregate of accounting information which published in financial statements. Accounting information has the ability to explain the share prices of the banking sector which registered in the Colombo Sock Exchange in Sri Lanka. Further, without confidence in accounting numbers as a whole, investors will not take their investment decisions. This depict that investors generally not focus on short term capital gain or irrational for unusual events. Therefore, accounting standards setters should enhance the quality of the financial reporting in order to increase the value relevance of financial statements.

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