

# **THE VALUE RELEVANCE OF FINANCIAL STATEMENTS' INFORMATION: WITH SPECIAL REFERENCE TO THE LISTED COMPANIES IN COLOMBO STOCK EXCHANGE.**

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## **ABSTRACT**

Investors and other interest parties of accounting make use of financial statements and disclosures, among other publically available information, to assess the risk and value of firm when taking the investment decisions. According to Sushma Vishnani, Bhupesh Kr. Shah (2008) "Value relevance" implies ability of the financial information contained in the financial statements to explain the stock market measures.

The purpose of this paper is to investigate the value relevance of financial information that extracted from financial statement directly or indirectly. Especially the study considered the value relevance of earnings and cash flows in stock prices. In addition, the study pays attention on the firm size effect on value relevance. A hundred (100) companies have been selected to the sample representing the all the business sectors except banking, finance and insurance over a period of 5 years from 2004 to 2008 listed in the Colombo Stock Exchange (CSE) and the pooled time regression method is used to analyze the data.

Return model as well as Price model was used to determine the value relevance of financial statements' information. It revealed that the value relevance of accounting information under the Price model has more explanatory power than Return Model.

The empirical results of the study indicate that Earning Per Share (EPS) is the most value relevant variable in this study and it is significant at 0.01 level. Regression of earnings, book value and cash flows on stock price results indicate that the cash flows from investment is another value relevance variables at 0.01 significant level. When running stepwise regression to determine the best model of value relevance, EPS is the only value relevant variable for determining stock prices.

**Key Words:** Earnings, Cash Flows, Value Relevance, Stock Return, Colombo Stock Exchange.

## INTRODUCTION

In recent times, the value relevance of financial information has been increasingly concerned by the researchers. Value relevance is one of the basic attribute of quality of the financial statements (Francis et al. 2004). High quality accounting information is a pre-requisite for well functioning capital markets and economy as a whole and as such should be of importance to investors, companies and accounting standard setters (Hellstron 2005). Particularly in order to be relevant accounting information must among others for quick response to user's needs.

Investors are not in a position to directly access the performance of the company in which they are intended to invest. They usually depend on the financial statements prepared by the management of the company. Rational investors use those financial reports and disclosures, among other publically available information to assess the risk and the value of the firm.

Value relevance is defined in the exact as association between accounting amount and security market values. Researches on value relevance of accounting information, its historical development and its comparison among different countries have been increased since the 1990s. More recently studies addressed on the contribution of cash flows, earnings and book value when assessing the value relevance of the firm. This paper studies about the association between stock returns and accounting related information such as Earnings, Cash flows, book value of equity, Firm size etc.

### **The Research problem**

This study investigates the relative value relevance of the financial information of the companies listed in Colombo Stock Exchange. In any country, increase of investment in capital market leads to improve strength of the capital market and development of economy. Investors rely on accounting information in their pricing of shares and companies which provide good quality information have thus an advantage in a lower cost of capital. Investors in developed countries are keen on the financial information of the intended investing companies. So that the investigation of the value relevance on financial information with relevant to the stock prices is important matter for the developing countries like Sri Lanka. On the other hand, the study investigates what are the value relevance accounting information which related to the investment and financial decision and how far they are explaining stock returns and prices.

### **Objectives of the study**

The study is based on the following three main objectives,

- To find out the value relevant variables among the financial related variables such as book value, earnings, cash flows and firm size in a company
- To identify the most significant value relevant variables among the financial related variables
- To determine the best model for explaining the value of the firm.

- To provide required suggestions to the Accounting Standard Setting bodies and Investment Consultants to improve the value relevance of accounting information.

### **Significance of the study**

As mentioned in the literature review, there are a number of international studies on value relevance of financial statements' information have been conducted and the most of them are based on developed and efficient capital markets in the world, i.e. New York, Washington, London, Tokyo, Hong Kong, and Singapore. However, the findings of those researchers are different from each other as well as inconclusive. Among the available published research, only one can be seen in Sri Lankan context on earnings and cash flows in explaining stock returns (Ranjani RPC and Karunarathne WVAD-2006).

Sri Lanka is a developing country in the South Asian region. However, the Colombo Stock Exchange has a leading place among the South Asian capital markets, which is an emerging stock market. Investments in stock market are essence to develop economy of any country and they should have enough and sufficient information which are related to investors' decisions. On the other hand, the value relevance information is essential through the published financial statements. Ultimately, it is the duty of Accounting Standard Setting bodies to maintaining accounting concepts and Standards to provide value relevance information by the financial statements like, Income statement, Balance sheets, Cash Flows Statements and Notes to the Final Accounts. Further, the financial consultants also think which variables are value relevance in the financial statements and in the supportive financial analysis like ratio analysis. Therefore, the current study will be supported to fulfill the above research gap.

While there have been a number of studies on this topic in the developed countries. At the time of this work we are not aware of any study that has explored directly in this title in Sri Lankan context. Therefore, this study fills the gap in literature by investigating the financial information reflects the stock returns of the companies in Sri Lankan stock market. Thus in turn should accelerate development of the Sri Lankan Stock Market.

### **LITERATURE REVIEW**

By reviewing the previous researches, there are number of international evidence on the importance of financial statements' information and their value relevance are publicly available. Among them, different studies have paid attention on different ways like value relevance of Earnings, Value relevance of Cash flows, value relevance of Book value and the overall value relevance of accounting and Non-accounting variables. The summary of value relevant literature review can be presented as follows.

## **Usefulness of accounting information:**

Accounting plays a significant role within the concept of generating and communicating wealth of companies (Meyer 2007). The relevance and reliability are the key characteristics of financial information used in making valuation decisions. Relevant information is such that "... *influences the economic decisions of users by helping them evaluate past, present and future events*" (Hellstron 2005). From the investors' perspective, relevant information is information which contributes to their equity investment decisions. It must be noted that market value relevance as defined above is only one of the possible interpretations of value relevant (Francis et al 2002). Accounting value relevance is a concept that has admitted a number of definitions and measures. Lev (1989) asserted that relevance of accounting was characterized by the quality of the accounting information. According to Gee-Jung (2009) the accounting information has an ability to capture or summarize information that affects equity value.

Catherine Whelan (2004) states that there are three summary measures presented in a firm's financial statements that may have questionable value relevance; (1) earnings, as reported in the income statement, (2) book value, as reported in the balance sheet and (3) cash flows, as reported in the statement of cash flows. Many literatures have examined the value relevance of book value, earnings and cash flows (Ball and Brown 1968; Beaver 1986; Gee-Jung 2009). Most of the studies reported that book value and earnings have significant information content equity valuation (Lev. 1989, Dechow 1994).

Book value of the equity represents past performance and current earnings are indicative of future performance. Thus these measures are commonly used as the basis for firm valuation.

Some studies indicate that earnings management to avoid losses and earnings decrease causes the deterioration of the value relevance of earning (Marguardt and Wiedman 2004)

## **Value Relevance of Earnings**

The value relevance is one of dominated factor in the past studies. Previous studies that reviled earning and cash flows in terms of their information content found that each measure provided incremental information when used in the conjunction with other.

According to the Dechow (1994) earnings displayed a stronger association with returns than the cash flows. Further Dechow proposed that when a firm is experiencing changes in working capital requirement and investing and financing activities, cash flows may have severe matching and timing problems and as such would be less able to reflect performance.

Cheng et al. (1996) found that both earnings and earning changes are value relevant. They use both levels and changes to investigate the effect of earnings performance on the information content of cash flows. They suggest that market looks to cash flows as an alternative source of information if inadequacies are provided in the earnings number.

### **Value Relevance of Book Value**

Gee-Jung and Kwon (2009) conduct an empirical research to investigate the relative and incremental value relevance of book value, earnings and cash flows in security prices in Korean stock market using the period of 1994 to 2005. They states that book value is the most value relevant variable and cash flows have more value relevance than earnings. Further it states that combine value relevance of book value and cash flows is more value relevant than that of book value and earnings.

Collins et al. (1997) suggest that using book value of equity to evaluate firm with small size, intangible intensities and reporting negative earnings is more appropriate than using earnings in the light of investors' point of view. Further they document the relative value tradeoff between earnings and book value coefficients when earnings are negative. This relationship is found to persist even after size, risk and earnings persistent are taken in to account. Chen et al. (2001) suggest that earnings and that value relevance shifts to book value for firms with negative earnings.

### **Value Relevance of Cash Flows**

Cash flows measures are expected to provide value relevant information about the firm's growth opportunities, or lack thereof. Operating cash flows provide information about the firm's ability to continue to cover cash needs internally. Investing cash flows provide information about the liquidation value of a firm's existing assets and about its capital expenditure. Financial cash flows provide value relevant information about the firm's financing activities. Ervin L. Black (1998) studies the relative value relevance of earnings and cash flow measure in different life cycle stages. They find that cash flows are expected to be more value relevant in the stages characterized by growth and/ or uncertainty. Earnings are predicted to be more value relevance in maturity stage.

Cheang, Liu and Schaefer (1996) find that the value relevance of earnings decreases and value relevance of operating cash flows increases, with a decrease in the performance of earnings.

### **Value Relevance of Earnings and Cash Flows**

Charitou (1997) stated that operating cash flow data has information content for stock returns and provide evidence regarding the information content of cash flows beyond earnings

Ali and pope, 1995, Clubb, 1995 say that the cash flow data has information content for stock returns, which provide evidence regarding the information content of earnings beyond cash flows.

Ranjani RPC and Karunarathne WVAD (2006) investigated the impact of earnings and cash flows on the determination of stock returns by selecting 55 listed companies in Colombo Stock Exchange (CSE). The results of the study provide support for the positive relation among operating earnings and operating cash flows with stock returns. On the other hand firm size, and book to market value have

negative relationship with stock returns. The explanatory power of operating earnings is greater than the operating cash flows in explaining stock returns.

## METHODOLOGY

Sample selection procedure, Conceptual framework, Statistical data analysis methods and models of the study and variable identifications are discussed under this section.

### Sample and Data Collection

The paper obtains all necessary data from the Colombo Stock exchange. These data sets span the 5 year period from 2004 to 2008. The sample is consisting of 100 companies listed in Colombo Stock exchange representing all the industry sectors except Banking Finance and Insurance sector because the structure and the accounting practices for these companies differ substantially from the companies in the other sectors. The sample was selected based on the following criteria.

- Highest Market Capitalization recorded companies in each industry sector in the Colombo Stock exchange in 2008.
- Companies where the financial statements are preparing at end of 31<sup>st</sup> March each year.
- Companies that have necessary financial statement data.

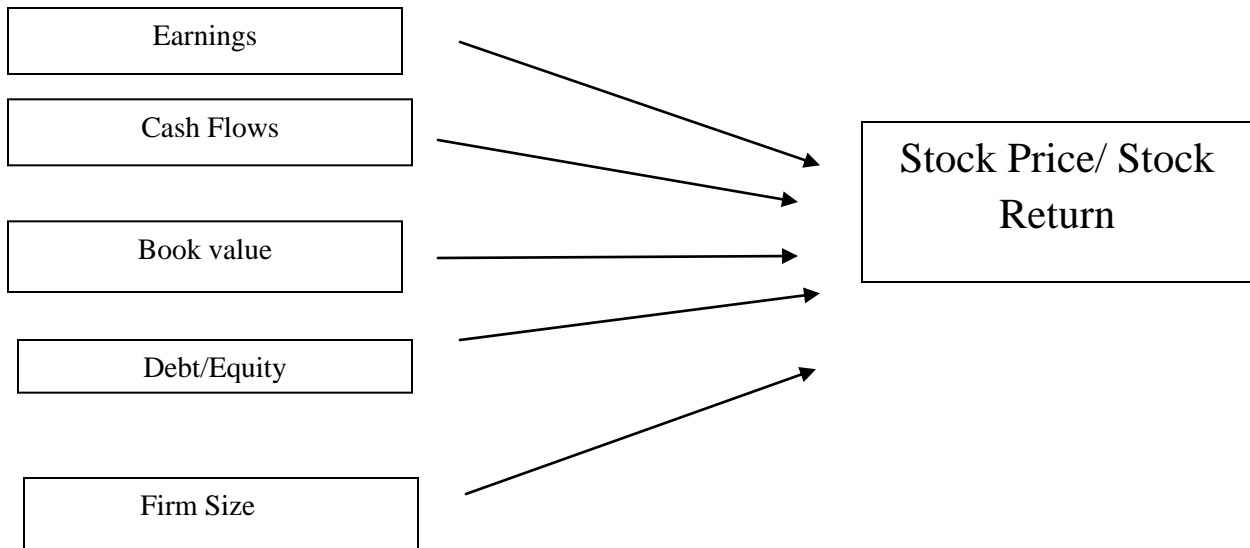
**Table 1: Sample for the value relevant model**

Industry Sector	Proxies
Beverage Food and Tobacco	9
Manufacturing	16
Services	4
Stores and Supplies	3
Motors	4
Trading	4
Plantations	9
Heath Care	4
Power and Energy	2
Diversified Holdings	5
Information Technology	1
Oil Palms	4
Chemicals and Pharmaceutical	5
Land and Property	9
Investment Trusts	4
Footwear and Textile	2
Construction and Engineering	2
Hotels and Travels	13
	100

To examine the value relevance of cash flows, earnings and the book value on equity value of the firm market price is regressed on the cash flows, earnings and the book value by using the SPSS package. The value of correlation ( $r$ ) and coefficient of determination ( $r^2$ ), significance levels and other information which are drawn from SPSS output help to verify this empirical relationship.

### Conceptual Framework

Based on the Literature it is evident that the financial information has an impact on the value of the firm. Previous researchers have studied some important value relevant financial information in their studies. Most of the Literature, they have selected the cash flows, earnings related measures and the book value as the financial information.



### Statements of Hypothesis

Based on the discussion in the literature we hypothesize following relationships between share price and cash flows, earnings and the book value.

**H1:** Earnings are sensitive to the security market values.

**H2:** Book Value is sensitive to the security market values.

**H3-A:** Operating cash flows are sensitive to the security market values.

**H3-B:** Investing cash flows are sensitive to the security market values.

**H3-A:** Financing cash flows are sensitive to the security market values.

**H4:** Firm size is sensitive to the security market values.

**H5:** Earnings are more price sensitive than the cash flows.

## Operationalization of Variables

Assessing the value-relevance of the financial information provided by the Financial statements requires an examination of the extent to which use this information in valuing the company. Market price of the share is the core dependent variable in this study. Share return is used as another dependent variable in the model. Share return is derived by using the market value of the shares. Price is appropriate when aim is to determine the value relevance of accounting measures, whereas returns are more appropriate when the objective is to explain changes in value over a specified time.

Cash flows, Earnings and the Book value of equity are the three major accounting measures used as independent variable in this study. In the value relevance literature earnings are defined as earnings before extra ordinary items (Dechow 1994; Cheng et al 1996). For this study the researchers have used four types of earning measures Consistent with the past research. Book value is defined as book value of equity per share (Barth et al 1998). The number of shares outstanding as at 31<sup>st</sup> March is used as the deflator. There types of cash flows used to analyse the value relevance consist with Operating Cash flows, Financing Cash Flows and Investing Cash Flows of the companies as at 31<sup>st</sup> March.

## Model Specification and the Methodology

In order to examine research questions of how book value, earnings and cash flows relate to equity value, this paper basically use a generalized version of the Ohlson (1995). This paper adds cash flows, earnings yield, operating earnings, earnings after tax to the Ohlson (1995) model because the paper predicts cash flows, earnings yield, operating earnings, earnings after tax may provide additional information about the firm's equity value. This model is extensively used in the value relevance literature (Collins et al 1997; Barth et al 1998).

$$\text{Model-1: } P_{t+3} = b_0 + b_1\text{EPS}_t + b_1\text{EPS}_t + b_2 \text{OEPS}_t + b_3\text{EATPS}_t + b_4\text{EY}_t + \varepsilon$$

$$\text{Model-1A: } P_{t+3} = b_0 + b_1\text{EPS}_t + \varepsilon$$

$$\text{Model-1B: } P_{t+3} = b_0 + b_2 \text{OEPS}_t + \varepsilon$$

$$\text{Model-1C: } P_{t+3} = b_0 + b_3\text{EATPS}_t + \varepsilon$$

$$\text{Model-1D: } P_{t+3} = b_0 + b_4\text{EY}_t + \varepsilon$$

$$\text{Model-2: } R_{t+3} = b_0 + b_1\text{EPS}_t + b_1\text{EPS}_t + b_2 \text{OEPS}_t + b_3\text{EATPS}_t + b_4\text{EY}_t + \varepsilon$$

$$\text{Model-2A: } R_{t+3} = b_0 + b_1\text{EPS}_t + \varepsilon$$

$$\text{Model-2B: } R_{t+3} = b_0 + b_2 \text{OEPS}_t + \varepsilon$$

$$\text{Model-2C: } R_{t+3} = b_0 + b_3\text{EATPS}_t + \varepsilon$$

$$\text{Model-2D: } R_{t+3} = b_0 + b_4\text{EY}_t + \varepsilon$$

$$\text{Model-3: } P_{t+3} = b_0 + b_5\text{BV}_{t-1} + \varepsilon$$



$$\text{Model-4: } R_{t+3} = b_0 + b_5BV_{t-1} + \varepsilon$$

$$\text{Model- 5: } P_{t+3} = b_0 + b_6OCF_t + b_7ICF_t + b_8FCF_t + \varepsilon$$

$$\text{Model-5A: } P_{t+3} = b_0 + b_6OCF_t + \varepsilon$$

$$\text{Model-5B: } P_{t+3} = b_0 + b_7ICF_t + \varepsilon$$

$$\text{Model-5C: } P_{t+3} = b_0 + b_8FCF_t + \varepsilon$$

$$\text{Model- 6: } R_{t+3} = b_0 + b_6OCF_t + b_7ICF_t + b_8FCF_t + \varepsilon$$

$$\text{Model-6A: } R_{t+3} = b_0 + b_6OCF_t + \varepsilon$$

$$\text{Model-6B: } R_{t+3} = b_0 + b_7ICF_t + \varepsilon$$

$$\text{Model-6C: } R_{t+3} = b_0 + b_8FCF_t + \varepsilon$$

$$\text{Model-7: } P_{t+3} = b_0 + b_9FS_t + \varepsilon$$

$$\text{Model-8: } R_{t+3} = b_0 + b_9FS_t + \varepsilon$$

$$\text{Model-9: } P_{t+3} = b_0 + b_1EPSt + b_2OEPS_t + b_3EATPS_t + b_4EY_t + b_5BV_{t-1} + b_6OCF_t + b_7ICF_t + b_8FCF_t + b_9FS_t \varepsilon$$

$$\text{Model-10: } R_{t+3} = b_0 + b_1EPSt + b_2OEPS_t + b_3EATPS_t + b_4EY_t + b_5BV_{t-1} + b_6OCF_t + b_7ICF_t + b_8FCF_t + b_9FS_t \varepsilon$$

Where,  $P_t$  = Market Price per share,  $EPSt$  = Earnings per share,  $OEPS_t$  = Operating Earnings per share,  $EATPS_t$  = Earnings after tax per share,  $EY_t$  = Earnings Yield,  $BV_{t-1}$  = Book Value per share,  $OCF_t$  = Operating Cash flows,  $ICF_t$  = Investing Cash flows,  $FCF_t$  = Financing Cash flows  $FS$  = Firm Size  $b_0 = b_2 = b_3 = b_7 =$  Regression Parameters.

Secondary data were used to find out the value relevance of the financial statements' information. Secondary data were collected through the published financial statements of the companies.

Market price is reported price of the share where the 3 months time after preparing the financial statements. In this study researchers considered only the companies where preparing the financial statements as at 31<sup>st</sup> March. Earnings include three types namely, operating profit per share (OEPS), basic earnings per share (EPS) and the earnings after tax per share (EATPS) for the year ended 31<sup>st</sup> March in each year. Book value per share (BVPS) has been calculated for each company as at 31<sup>st</sup> March in each year. Three types of cash flows have been used to analyze the value relevance. Those are Operating Cash flows per share (OCFPS), Investing Cash flows per share (ICFPS) and Financing Cash flows per share (FCFPS).

## DATA ANALYSIS AND PRESENTATION

### Hypothesis 01: Earnings are sensitive to the security market values.

To measure the value relevance of earnings the researchers have used the Earning per Share (EPS). Table 2.0 represents the regression coefficient of share price and the EPS. When increase in one unit of EPS share price will increase 11.936. Correlation coefficient between these two variables is 59%. Thus the share price and the EPS, model 1A, is positively correlated at the 1% significant level. Further when considering OEPS and EATPS it is also correlation between variables is 57% and 53.6% respectively. It is evident that the earnings are value relevant information in the financial statements. The positive and significant coefficient estimates for the pooled regression support the hypothesis 01.

Coefficient estimates and the exploratory power of the model are consistent with the past researches (Collins et al, 1997). Thus, it is confirming that the value relevant of earnings for companies in this sample.

Table 2: Value relevance of Earnings

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
1A	11.936	0.742	0.59	16.08	.000
1B	2.526	0.164	0.571	15.362	.000
1C	3.055	0.217	0.536	14.050	.000
1D	-9.501	22.369	-.019	-.425	.671

EY is another identified variable in this study. The results show that it is not a significant variable in this value relevance study because the correlation between EY and share price is 1.9%.

Table 2.1: Model Summery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1A	.589	.347	.346	652.23417
1B	.571	.326	.324	661.76551
1C	.536	.288	.286	680.11588
1D	.019	.000	-.002	807.23149

According to the table 2.1, when analyzing the above models, it can be seen that the highest adjusted  $R^2$  is reported with reference to the earnings is EPS. That is about 34.6%. Further the model explained the 34.7% variation of the value relevance of companies and all t values are significant. The second significant adjusted  $R^2$  is reported is Model 1B, which is 32.4%.

The researchers have put their attention on share return as another dependent variable in this study. Share return is one of a key factor which influencing the investor decision when investing in securities. The results of the return models with the earnings are depicted in table 11.0 in appendix. The results are somewhat different from the price model. OEPS and the EATPS are positively correlated with the share return at 1%

significant level. The highest correlation is recorded by EATPS and which is 23.6%. It has recorded 5.4% adjusted R<sup>2</sup>.

**Hypothesis 02: Book Value is sensitive to the security market values.**

Hypothesis 2 states that the value relevance of book value. This hypothesis is tested estimating equation and table 3.0 present the result of the regression for the pooled sample. When book value is increased one share price will be increased .808. Correlation coefficient between these two variables is 50.6%. Thus it has a positive relationship between the above two variables. The hypothesis 02 built on this relationship is accepted. Since the t value is 12.96 and it is significant at the 1% level. These results are consistent with the empirical results show in the previous literature (Gee-Jung, 2009, Collins et al, 1997). Adjusted R<sup>2</sup> of this model is 25.4%

Table 3: Value relevance of Book Value

Model	Unstandardized Coefficients b	Std. Error	Standardized Coefficients Beta	t	Sig
3	.808	.062	.506	12.961	.000

Table 3.1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	.506	.256	.254	695.17186

When analyzing the return model book value is sensitive to the share return and correlation coefficient between those two variables is 18.5% (see table 13.0 of appendix)

**Hypothesis 03: Cash flows are sensitive to the security market values.**

When investigating the value relevance of the financial information the researchers include three major cash flows consisting with operating cash flows, financing cash flows and investing cash flows. Moving to table 4.0 it can be seen that the operating cash flows per share and the share price of the company. This is hypothesis as 3A.

Table 4.0: Value relevance of the Operating Cash flows

Model	Unstandardized Coefficients b	Std. Error	Standardized Coefficients Beta	t	Sig
5A	1.212	.180	.292	6.744	.000

These results shows in the table 4.0 are not consistent with prior literature reported that the value relevant of operating cash flows (Cheng 1997, Gee-Jung, 2009). It shows the correlation coefficient between the operating cash flows and the share price is 29.2%. It indicates that the weak positive correlation between the operating cash flows per share and the share price. Furthermore when increase in the one unit of operating cash flows per share will be increase by 1.21 and the reported t value is 6.744. Therefore the hypothesis 3A built on this relationship is accepted.

Table 4.1 present the results of regression analysis between the investing cash flows per share and the share price. As per the results we can see that the relationship is not

significant. This correlation is suggested that investing cash flows itself will not be provide value relevance with the share price. Therefore hypothesis 3B is rejected.

Table 4.1: Value relevance of the Investing Cash flows

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
5B	-.275	.252	-.049	-1.091	.276

Moving to hypothesis 3C the researchers examine the relationship between financing cash flows per share and share price. Table 4.2 present the regression coefficient of financing cash flows per share and the share price. When increase in one unit of financing cash flows per share, the share price decrease by 1.989. Correlation coefficient between these two variables is 23.9%. Thus hypothesis 3C is accepted at 1% significant level.

Table 4.2: Value relevance of the Financing Cash flows

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
5C	-1.989	.366	-.239	-5.430	.000

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
5A	.292	.085	.083	771.41644
5B	.049	.002	.000	804.79916
5C	.239	.057	.055	783.24874

According to the table 4.3, when analyzing the above models, it can be seen that the highest adjusted  $R^2$  is reported with reference to the cash flows is OCFPS. That is about 8.3%. Further the model explained the 8.5% variation of the value relevance of companies. The second significant adjusted  $R^2$  is reported is Model 5C, which is 5.5%.

The results of the return models with the cash flows are depicted in table 14.0 in appendix. The FCFPS is positively correlated with the share return at 1% significant level and the adjusted  $R^2$  is 4.6%.

#### **H4: Firm size is sensitive to the security market values.**

This study is pay attention on the firm size effect on the value relevance. Table 5.0 present the regression coefficient of financing cash flows per share and the share price. When increase in one unit of financing cash flows per share, the share price decrease by 80.623. Correlation coefficient between these two variables is 18.8%. Thus hypothesis 4 is accepted at 1% significant level

Table 5.0: Value relevance of Firm Size

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
7	80.623	19.009	.188	4.241	.000

### H5: Earnings are more price sensitive than the cash flows.

When comparing the most value relevant variable, according to the table 6.0 we can see that the earnings are more value relevant than the cash flows. Earnings record high Adjusted R<sup>2</sup> than the cash flows. Thus hypothesis 5 is accepted.

Table 6.0: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Earnings	.672	.452	.448	599.04802
CF	.333	.111	.106	762.03906

### Test for the value relevant of Book Value, Cash Flows and Earnings

After addressing the specific research question, some additional remarks on finding are warranted. The paper examines the best model of the value relevance of main variables by combining book value, earnings and cash flows. The results of the stepwise regression on value relevance of book value, earnings, firm size and cash flows and the best model we obtained from the variables are shown in the table 7.0 and 7.1

Table 7.0: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1(SR)	.590(a)	.348	.346	653.35223
2(SR)	.672(b)	.452	.450	599.50267
3(SR)	.710(c)	.504	.501	570.95552
4(SR)	.719(d)	.517	.513	563.72732
5(SR)	.727(e)	.528	.523	557.99013
6(SR)	.730(f)	.532	.526	556.13179

a Predictors: (Constant), EPS

b Predictors: (Constant), EPS, OEPS

c Predictors: (Constant), EPS, OEPS, ICFPS

d Predictors: (Constant), EPS, OEPS, ICFPS, FS

e Predictors: (Constant), EPS, OEPS, ICFPS, FS, FCFPS

f Predictors: (Constant), EPS, OEPS, ICFPS, FS, FCFPS, OCFPS

Table 7.1: ANOVA(g)

Model		Sum of Squares	df	Mean Square	F	Sig.
1(SR)	1	Regression	110371162.979	1	110371162.979	258.560
		Residual	207031533.127	485	426869.140	
		Total	317402696.107	486		
2(SR)	2	Regression	143451425.068	2	71725712.534	199.569
		Residual	173951271.039	484	359403.453	
		Total	317402696.107	486		
3(SR)	3	Regression	159949425.166	3	53316475.055	163.552
		Residual	157453270.940	483	325990.209	

		Total	317402696.107	486		
4(SR)	4	Regression	164228641.134	4	41057160.284	129.196
		Residual	153174054.972	482	317788.496	
		Total	317402696.107	486		
5(SR)	5	Regression	167641912.345	5	33528382.469	107.686
		Residual	149760783.762	481	311352.981	
		Total	317402696.107	486		
6(SR)	6	Regression	168947066.003	6	28157844.334	91.042
		Residual	148455630.104	480	309282.563	
		Total	317402696.107	486		

Dependent Variable: Market price 30<sup>th</sup> June

### The selected models form the stepwise regression

$$\text{Model 1(SR)} \quad P_t = a + 11.936\text{EPS}_t$$

$$\text{Model 2(SR)} \quad P_t = a + 8.257\text{EPS}_t + 1.640\text{OEPS}_t$$

$$\text{Model 3(SR)} \quad P_t = a + 7.215\text{EPS}_t + 2.383\text{OEPS}_t + 1.520\text{ICF}_t$$

$$\text{Model 4(SR)} \quad P_t = a + 6.571\text{EPS}_t + 2.454\text{OEPS}_t + 1.467\text{ICF}_t + 51.732\text{FS}_t$$

$$\text{Model 5(SR)} \quad P_t = a + 5.892\text{EPS}_t + 2.959\text{OEPS}_t + 1.902\text{ICF}_t + 55.698\text{FS}_t + 1.135\text{FCF}_t$$

$$\text{Model 6(SR)} \quad P_t = a + 6.136\text{EPS}_t + 2.773\text{OEPS}_t + 2.346\text{ICF}_t + 56.574\text{FS}_t + 1.760\text{FCF}_t + 0.605\text{OCF}_t$$

The best models clearly indicate that some identified variables make less noise than variable itself considered. When analyzing the above models, it can be seen that the highest adjusted  $R^2$  is reported in model 06. That is about 52.6%. Further the model explained the 53.2% variation of the value relevance of companies and all t values are significant. These results are reporting with a 1% significant level in model 06.

The important point in this model is though investing cash flows itself was not recorded a significant influence, when running the stepwise regression it become significant at 1% level.

In table 8.0 the person correlation matrix of the model variables is presented. There are some variable that present a high correlation. It can be noted that the OCFPS and the BPVS is highly correlated. Person correlation between these two variables is 71.6%. Further EATPS and the BVPS are highly correlated.

Table 8.0: Person Correlation Matrix of model variables

	Pt	Rt	EPS	BVPS	OEPS	EATPS	OCFPS	ICFPS	FCFPS	EY	FS
Pt											
Rt	.390										
EPS	.589**	.107*									
BVPS	.506**	.185**	.482**								
OEPS	.571**	.229**	.491**	.716**							
EATPS	.536**	.236**	.432**	.714**	.963**						
OCFPS	.292**	.111**	.178**	.439**	.749**	.747**					
ICFPS	-.049	.104*	-.115*	-.334**	-.523**	-.475**	-.603**				
FCFPS	-.239**	-.219**	-.112*	-.125**	-.415**	-.453**	-.531**	-.170**			
EY	-.019	.001	.070	.012	.007	.007	-.001	.010	-.011		
FS	.188**	-.043	.187**	-.046	-.064	-.081	.119**	-.051	-.150**	-.177**	

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

\* Correlation is significant at the 0.05 level (2-tailed)

The results of the stepwise regression on value relevance of book value, earnings and cash flows with the share return and the best model we obtained from the variables are shown in the table 9.0.

Table 9.0: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.230(a)	.053	.051	979.21858
2	.349(b)	.122	.118	943.74263

a Predictors: (Constant), OEPS

b Predictors: (Constant), OEPS, ICFPS

Table 9.1: Coefficients (a)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
<b>Model 1</b>					
OEPS	1.264	.243	.230	5.193	.000
<b>Model 2</b>					
OEPS	1.264	.243	.230	5.193	.000
ICFPS	2.140	.347	.309	6.176	.000

Accordingly the best model is model 02 and the significant variables are somewhat different with results on the share price. The most value relevant variables are OEPS and the ICFPS.

## **Findings and Discussion**

The first objective of the study is to find value relevant variable among book value, earnings and cash flows in a company. The test results has found that the earning per share, book value per share, operating cash flows per share and the financing cash flows per share are value relevant variables.

The second objective of this study is to identify the most significant value relevant variables among book value, earnings and cash flows in a company. The researchers have found that the earning per share is the most value relevant variable among the other variables. It has recorded correlation coefficient between these two variables is 59%. Earnings are more value relevant than the cash flows.

The third objective of our study is building a good model that adequately explains the value relevance variables. To achieve this purpose we have run the stepwise regression and the best model consisting with four variables. Those are earning per share, book value per share, investing cash flows per share and the operating cash flows per share.

## **CONCLUSION AND RECOMMENDATIONS**

Accounting regulators have placed value relevance as the primary attribute of financial information. Despite several attempts, no specific conceptual framework has been established which operationalises this aspiration. Empirical works to date which attempts to evaluate the information content of the earnings, book value and cash flows in Sri Lankan stock market. In this work we adopt the value relevance model developed by Ohlson (1995) and by introducing contextual variables we shed further light on the issue. The results shows that there is relationship between financial statements' information has ability to capture or summarize information that affects equity value and there is a relation between accounting numbers and the share price in Sri Lankan stock market.

Therefore it can be inferred that sustainable development of Colombo Stock Exchange can be boost through reliable financial information. Without confidence in financial information, investors will not invest adequately on the Colombo Stock Exchange. The accounting preparers and standard setters should enhance the quality of earnings because it received attention of most investors. In addition policy makers should implement more stringent rules to enhance the value relevance of financial information. This will compel diligence, accountability and responsibility in preparation and application of accounting standards. This in turn will increase investor's confidence in Colombo Stock Exchange by extension, economic growth.

Some additional suggestions for further research are appropriate in this place. First value relevant is only one of the attributes of accounting quality which give space for further research into the area of accounting quality in the Sri Lanka. Further this value relevant test does not distinguish between the accounting regulation and its actual implementation. This issue should be address in the future.



## APPENDIX

Table 10.0: Value relevance of EPS, OEPS, EATPS and EY

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
(Constant)	-16.092	29.443		-.547	.585
EPS	8.400	.795	.415	10.572	.000
OEPS	1.393	.579	.315	2.406	.017
EATPS	.310	.720	.054	.431	.666
EY	-25.038	16.630	-.051	-1.506	.133

Dependent Variable: Market Price 30 th June

Table 11.0: Value relevance of earnings models

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
2A	2.693	1.125	.107	2.394	.017
2B	1.262	.241	.229	5.247	.000
2C	1.671	.309	.236	5.410	.000
2D	.756	27.822	.001	.027	.978

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2A	.107	.011	.009	991.13944
2B	.229	.053	.051	968.35150
2C	.236	.056	.054	966.75040
2D	.001	.000	-.002	1004.01188

Dependent Variable: Market Return 30 th June

Table 12.0: Value relevance of EPS, OEPS, EATPS and EY

Model 2	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
(Constant)	-60.566	48.165		1.257	.209
EPS	.112	1.300	.004	.086	.932
OEPS	.130	.947	.024	.137	.891
EATPS	1.499	1.177	.212	1.274	.203
EY	-.462	27.202	-.001	-.017	.986

Dependent Variable: Market Return 30 th June

Table 13.0: Value relevance of Book Value

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
4	.367	.088	.185	4.195	.000

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	.185	.034	.032	977.66895

Dependent Variable: Market Return 30 th June

Table 14.0: Value relevance of Cash Flows

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig
	b	Std. Error	Beta			
6A	.574	.231	.111		2.490	.013
6B	.723	.310	.104		2.334	.020
6C	-2.274	.454	-.219		-5.005	.000

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
6A	.111	.012	.010	989.68821
6B	.104	.011	.009	989.44275
6C	.219	.048	.046	971.58016

Dependent Variable: Market Return 30 th June

Table 15.0: Value relevance of OCFPS, ICFPS and FCF

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig
5	b	Std. Error	Beta			
(Constant)	168.661	35.164			4.796	.000
OCFPS	1.881	.376	.453		4.999	.000
ICFPS	1.287	.434	.231		2.963	.003
FCFPS	.345	.612	.041		.564	.573

Dependent Variable: Market Price 30 th June

Model 6	Unstandardized Coefficients		Standardized Coefficients		t	Sig
	b	Std. Error	Beta			
(Constant)	6.888	44.294			.156	.876
OCFPS	.981	.477	.190		2.055	.040
ICFPS	1.418	.551	.205		2.573	.010
FCFPS	-.867	.776	-.084		-1.118	.264

Dependent Variable: Return 30 th June

Table 16.0: Value relevance of EPS, OEPS, EATPS, EY, BVPS, OCFPS, ICFPS, FCF and FS

Model 9	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
(Constant)	-1228.107	301.631		-4.072	.000
EPS	5.833	.829	.288	7.035	.000
BVPS	.146	.082	.092	1.795	.073
OEPS	2.826	.580	.638	4.869	.000
EATPS	-.526	.706	-.092	-.745	.456
OCFPC	.582	.296	.140	1.968	.050
ICFPC	2.245	.335	.403	6.699	.000
FCFPS	1.484	.479	.178	3.096	.002
EY	-10.507	15.786	-.021	-.666	.506
FS	59.706	14.605	.139	4.088	.000

Dependent Variable: Market Price 30 th June

Table 17.0: Value relevance of EPS, OEPS, EATPS, EY, BVPS, OCFPS, ICFPS, FCF and FS

Model 10	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	b	Std. Error	Beta		
(Constant)	535.695	514.780		1.041	.299
EPS	-1.418	1.414	-.056	-1.003	.316
BVPS	.036	.139	.018	.259	.796
OEPS	2.135	.989	.388	2.158	.031
EATPS	.217	1.203	.031	.180	.857
OCFPC	-.098	.504	-.019	-.195	.845
ICFPC	2.181	.571	.314	3.818	.000
FCFPS	-.087	.817	-.008	-.106	.916
EY	-6.327	26.911	-.010	-.235	.814
FS	-27.562	24.929	-.051	-1.106	.269

Dependent Variable: Return 30 th June

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