

INCOME COMPONENTS AND STOCK RETURNS

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ABSTRACT: *This paper reviews the relationship between stock return and comprehensive income from published papers. Eight journals of accounting economics were randomly selected between a specific periods of (1981-2014). The objective of this study is to find out how consistencies are the researchers findings on stock return and comprehensive income through their relationship. Each of the paper was critically scrutinized with emphasis on Title, Method and Finding. The modality of finding the outcome was based on three hypotheses in which stock price as a function was enumerated. The result indicated that market development serve as prerequisite change to stock exchange. Thus the result as regard market is consistent.*

KEYWORDS: *Stock return, Comprehensive income, Stock prize, Market development, Market efficiency*

1. INTRODUCTION

Market efficiency is based on the theory of competition, in which prices are completely set out and decisions reflect available economic information which is used to promote market efficiency, one of the avenues to get this information is financial statement information. Financial analyst serves as primary catalyst when it comes to gathering and disseminating such information. This work is set to find out the relationship between stock return and comprehensive income.

The study makes use of randomly selected eight published journals of accounting and economics, within a specific period (1981-2014) to illustrate how comprehensive income relates to stock exchange returns especially the price changes in stock return. Do the researchers have the same outcomes from their research works or could it be that it varies from year to year.

Information about the stock market has been playing a vital role since the beginning of stock market itself, and the stock market reaction to information disclose has been tested, and will continue to be tested in many ways in both developing and developed markets such as Nigeria Stock Exchange, Turkey stock exchange and the United State of America together with that of United Kingdom Stock exchanges., it is very clear that such expected relationship between accounting variable and stock

returns do significantly exist and constantly influence one another.

2. LITERATURE REVIEW

(Rolf, W. Banz [12]). Discovered that smaller firm do have higher risk adjusted returns on average than larger firm and that the capital asset pricing model is miss specified. He also noted that the size effect is not linear in the market value and that there is little difference in return between average size and larger firm.

(Mohsen. Dastgir et al. [10]). Revealed in their study that comprehensive income is not superior to net income, for evaluating firm performance on the basis of stock return and price, while cash flows predicting using comprehensive income is superior to net income.

(Haroon Iqbal [5]). Presented evident from his research work that past return causes volume, but no evidence that past volume causes return, this suggest no feedback association among returns, and traded volume by considering market as well as stock effect cannot be reduced by introducing traded volume as an advisory variable in arch model, this implies that traders trading in FTSE 100 cannot find traded volume as an informatory variable.

(Kiridaran, Matheu, Shehata [8]). Established that NREAL and CFH (cash flow edges), have significant positive and negative association respectively with market prices and returns, that (Cash flow edge) are associated with stock returns but caution that the result may not have general application.

(Menike, Prabath [9]). Examined the impact of dividend per share, earning per share, and book value per share of stock price on a sample of 100 companies listed in the Colombo stock exchange (CSE), it was found out that EPS, DPS, BVPS, were positive and had a significant impact on the stock price in the CSE.

(Ann, Seyisi [1]). Discovered the hypothesis that the strength of the disclosure system (disclosure rule, monitoring and enforcement), is positively associated with market development after

controlling for legal system, legal protection of investor, market size and several other potentially relevant explanatory variables.

(Dan et al. [3]). Found out that their result does not support the claim that comprehensive income is a better measure of firm performance than net income, the result also raise questions about the appropriateness of items included in SFAS 130 compressive income as well.

3. RESEARCH METHOD

Eight journals were selected with the intension of checking their formation hypothesis, the research methodology and their applications toward achieving the set objective. The specific findings of each paper as regard to their methods are then arranged in a table for intimate comparison.

DISCUSION

It was discovered that in most of the journal sighted. The heading title does not directly bear the direct inscription as written above. but the content treat the investigating point under discussion, therefore title heading like comprehensive income comes in to replace the main heading as far as the required concept is treated in the journal, thus shows how far these titles give a clear and vivid explanation of the existing relationship.

In the first journal titled the "impact of Accounting Variables on Stock prices, Evidence from the Colombo stock Exchange Sri Lanka" It was clearly stated as one of the main objectives behind the work, the examination of the relationship between e-earning per share (EPS) and the stock price. The following was carrying out to achieve the objective. Three hypotheses was set out, one of which form the finding of the paper.

The significance between EPS and the Stock price and the application of multivariate regression model base on the [7] model, in which stock price as a function of the earning per share was enumerated. However several empirical studies have been carried out to test the same relationship using the same [7] model. [2][11][6]. The researchers developed the following model based on [7] model to carry out their research.

$$P_{it} = \alpha + bE_{it} + cBV_{it} + e_{it}$$

Where P_{it} =Average stock price,

E_{it} = earnings per share,

BV_{it} = Book value per share and,

$$P_{it} = \alpha + \beta_1EPS_{it} + \beta_2DPS_{it} + \beta_3DVPS_{it} + e_{it}$$

The author was able to analyzed the above equation and bring out the following equation on which Regression analysis was carried out.

$$P_{it} = \alpha + \beta_iEPS_{it}$$

As the relationship between share price and EPS, STOCK PRICE being the Dependent variable, and Earning per share EPS_{it}

As Independent variable (Page 132). The study revealed that there is a relationship between the account variables and the stock returns.

In the second journal, the study analyzed the association among trading volume and stock volatility in terms of return fluctuation in the model by including trading volume as an explanatory variable, and taking trading volume as dependent variable, while the stock return served as independent variable, the equation used for this analysis is given as follows

$$V_t = \alpha + \beta\mu_t \quad (1)$$

and

$$V_t = \alpha + \beta\sigma_t + \gamma\mu_t \quad (2)$$

The coefficient β and γ will explain the relationship of stock return and trading volume respectively. If the coefficient are positive then there exist a positive relationship among the variables, likewise if the values are negative which signified a negative relationship, by using OLS regression analysis for equation one above to explain the existing relationship between the stock return and the trade volume. The researcher also uses VAR model to explore the association between the variables.

V_t , the volume at time t, μ_t represents returns at time t the parameter β signified the partial correlation between volume and returns irrespective of the direction.

The work shows a significant change in stock returns as a result of variables measured in term of volume thus the relationship is established.. Trade volume represents the dependent variable while Independent variable is represented by Stock returns (Page 188)

The third Journal is more analytical when compare with the first two, Previous empirical studies provide mixed evidences on the value relevance of other comprehensive income and its components, this study discovered that aggregate comprehensive income is more strongly associated in terms of explanatory power with both stock price, and stock return compare to net - income however it was discovered that net income is a better predictor of future net income, relative to comprehensive income.

The research is designed for price level regression follow the well known theoretical work of [7]. The study was interested in determine whether stock price reflect the incremental information that is disclosed in the components of other comprehensive income. The test was carried out on the variable relevancies, by using the following empirical model. Since market returns models often use change variables which provide more convincing evidence. The following model was used to examine the association between the components of other comprehensive income and stock returns.

$$RET_{it} = b_0 + b_1NI_{it} + b_2HEDGE_{it} + b_3SEC_{it} + b_4FORET_{it}$$

When all variables, other than SET are scaled by the value of common equity at the beginning of the fiscal year. Noticed that RET_{it} is the stock return (dividends inclusive) for the year end three months after the end of fiscal year. In the result, stock return which other components of the comprehensive income associated with stand as dependent variable while price represent an independence variable (Page 356, 358).

The fourth Journal is not much differ from the other, When economics information is difficult to locate or is not consistently present among companies analyst are unable to perform their role optimally and efficiently. Such a breakdown in efficiency before introducing comprehensive income statement existed for certain comprehensive income items. Thus the study aim at investigating the relative ability of comprehensive income and net income to summarize firm performance as reflected in stock returns.

For the purpose of estimating, the research model for hypothesis testing a sample of companies listed in Tehran Stock Exchange for the time of period of 2001-2002 is used, research model was estimated with a pooled data for three years and over all 647 firms. For the purpose of investigation, the model in which returns are dependent variable, and comprehensive income and net income are independent variables as noted in [3]. The use of earning levels as a proxy for unexpected earning in a regression of returns and earning has theoretical and empirical support [7]. Therefore in this study, the researcher estimated the model in which market value of stock holders equity is dependent variable and performance is based on stock market price.

$$PRICE_{it} = \alpha_0 + \beta_1 * NI_{it} + \varepsilon_{it} \quad (3)$$

$$R_{it} = \alpha_0 + \beta_1 * COMP_{B,it} + \varepsilon_{it} \quad (4)$$

Though [13] suggested that researchers should use additional models in their empirical analysis, such as the price models to draw more definitive inferences. [3] in his study, revealed that model in which market value of stockholder equity is dependent variable,

and income and comprehensive income are independent variables, performance is based on stock market price.

Equation (4) is obtained by changing the depended variable R_{it} to $PRICE_{it}$ while equation (3) is the same as equation (1), generally comprehensive income adjustment improve ability of income for reflecting firm performance including the stock returns activities (Page 126, 13).

A simple linear relationship between the expected return, and the market risk of a security which was postulated by a single-period capital asset pricing model (CAMP). This study examines the relationship between the total market value of the common stock of a firm and its return. The empirical tests are based on a generalized asset pricing model, which allow the expected return of a common stock to be a function of risk β and, additional factor ϕ market value of equity, a simple linear relationship of the form

$$E(R_t) = \gamma_0 + \gamma_1\beta_1 + \gamma_2[(\phi - \phi)]_m$$

is assume where

$E(R_t)$ = EXPECTED RETURN ON SECURITY

Since expectations are not observable, the parameter number 1 must be eliminated from the historical data. By using several methods, and pooled cross-sectional and time series regressions to estimate γ_0 , γ_1 , γ_2 they differ primarily in the assumption concerning the residual variance of the stock returns (homoscedastic or heteroscedastic in cross-sectional)

In the work titled "Is comprehensive income superior to net income as a measure of firm performance". The major objective of the study is to investigate the above heading, by testing whether comprehensive income or net income better summarizes firm performance as reflected in stock returns (in an association study context) by using the following models.

$$R_T = \alpha_0 + \beta_1 * NI_t + \varepsilon_t$$

Broader measure of comprehensive income is out of test. This measure is based on the annual change in a firm's comprehensive retained earnings (COMPUSTAT item no: 36), which is in addition to accumulated earning. Other numerical analysis were made to arrive at the result by using the above model COMPUSTAT and CRSP data are needed to calculate returns of net income and comprehensive income. The result suggests that the marketable securities are the only component of SFES 130. Other comprehensive income that improves income's ability to summarize firm performance as reflected in stock returns, and this is what this work is all about, that is changes in stock returns. With securities as dependent variable and comprehensive

income or net income as independent variable (Page 61).

In another Journal titled “*The association between components of income statement, components of cash flow statement and stock returns*”, the paper makes use of numerical data from Tehran stock exchange (TSE), which was analyzed by statistical regression analysis model method. The component of income statement and component of cash flow statement form the independent variable while the firm stock returns (SR) form the dependent variable. The last paper was titled “*Stock exchange Disclosure and Market Development An analysis of 50 International Exchanges*” work uses the obtained information from different stock exchange board, and these give it the opportunity of wider coverage in term of data collection, In the analysis procedure, the researchers still fall back to the same procedure of using regression analysis to carry out their investigation, the result shows that market development lead to changes in stock returns. In this work, the dependent variable is stock exchange disclosure, while independent variable is represented by market development (MARKETDEV).

In all the considered papers, it is observed that majority of these papers make use of regression analysis, in fact just only two of them depend on data from income statement or directly use income statement data.

Finding

The following headings were used to tabulate the findings

- (1) Title of the Journal
- (2) Depended variable
- (3) In depended variable
- (4) Methodology

Table 1 Following headings

No	Title	Depended Variable	Independed Variable	Methodology
1	Impact of accounting variables on stock price: evidence from the colombo stock exchange, srilanka	Stock price	Earnings per share. (EPS _{it})	Researcher ran the single and multiple regressions. With equation. $p_{it} = \alpha + \beta_i EPS_{it}$
2	The Association between Components of income statement, components of cash flow statement and stock returns Trading volume and	Firms' stock returns (sr)	Componet of income statemet and componet of cash flow statemet	Electronic archival data from tehra stock exchange (TSE). Computation by regression model

No	Title	Depended Variable	Independed Variable	Methodology
	volatility: Evidence from stock market of United Kingdom.			
3	The empirical Relationship Between stock Returns, Trading volume and volatility: Evidence from stock market of United Kingdom.	Trading volume	Stock returns	The researcher uses OLS equation to explain the direct association among volume, velocity and return by taking trading volume as a dependent variable. The equation for the analysis is given by $v_t = \beta \sigma_t + \gamma \mu_t$
4	Stock Exchange Disclosure and Market Development. An Analysis of 50 International Exchanges	Market Development (marketdev)	Stock exchange disclosue	Researcher uses Regression Analysis
5	Usefulness of comprehensive income reporting in Canada	Stock price and returns	Price _{it}	Price level regression price _{it} = a ₀ + a ₁ bve _{it} + a ₂ nis _{it} + a ₃ hedges _{it} + a ₄ secs _{it} + a ₅ fores _{it} + δ _{it}
6	Comprehensive Income and Net Income as Measures of Firm Performance: Some Evidence for Scale Effect.	Market value of Stock holders' equity	Net income and comprehensive income.	Researcher uses Deflated data using fiscal year-end number of stock on the estimation of the following models. $price_{it} = \alpha_0 + \beta_i * NI_{it}$
7	The relationship between return and market value.	Portfolios on the basis of market value and security beta.	Expected return on security i	Constrained optimization procedure described in FAMA (91976)
8	Is comprehensive income superior to-net income as a measure of-firm performance	Stock returns	Comprehensive- income	Testing whether comprehensive income or net income is better. A reflect on Stock return.

CONCLUSION

It is observed from the finding above, that the reported results as regard the market are largely consistent with the content of the information both

in hypothesis and efficient market hypothesis (E.M.H) and with series of literatures to support it. The future research work will be on the same topic but the year of reference should be from 2014-2020.

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