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Research Article

A Study On Accounting Ratios And Stock Returns With Reference To National Stock Exchange Of India

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ABSTRACT

Accounting ratios and published financial information are important tools for investors, creditors and other interested parties to determine the profitability and control. A good financial condition of the company, have a significant impact on the performance of the stocks and on the performance of the stocks exchanges. The aim research paper is to study whether key accounting information will affect the prices of National Stock Exchange. The study used fifteen year accounting ratios from 2005–2020 such as ROE (Return on Equity), ROA (Return on Assets), P/E (Price to Earnings ratio), P/B (Price to Book Value ratio), P/S (Price to Sale Revenue ratio), P/C (Price to Cash flow ratio) listed in National Stock Exchange of India as explanatory variables (independent) to estimate stock returns. Secondary data is collected from the financial statements of the companies for the regular years from CMIE Prowess database and from websites of stock exchanges. The purpose of this study is to evaluate and illustrate the validity of these accounting ratios to confirm the profitability of the stock returns of listed companies. The study used Pooled OLS Model, Fixed Effect Model and Random Effects Model to assess the stock returns of the panel data from 160 companies. But the random effects model proved to be best fit according to Breusch and Pagan Lagrangian Multiplier test and Hausman test. The results of this research are significant in formulating investment strategies and predicting market efficiency for investors. The importance of this research is to provide strong evidence of the relationship between equity returns and accounting information, and to provide a fundamental basis for decision-making for investors and financial managers.

Keywords: *Financial Indicators, Return on Equity, Return on Assets, Price to Earnings, and Stock Returns*

JEL Classification: C33, O16, M41, G14, G22

1. INTRODUCTION

The National Stock Exchange of India (NSE) is India's major stock exchange in Mumbai. It is owned by several major financial entities. Investopedia, (Feb, 2021), NSE was established in 1992 as the first dematerialized electronic exchange in the country. NSE is the pioneer stock exchange in the country to provide the latest and fastest fully self- mechanized electronic trading system, providing trading facilities

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to investors across the country. The national stock exchange has a market capitalization of over US $ 3 trillion and is the 10th largest stock exchange in the world as of May 2021. NSE's NIFTY-50 index is a index of 50 stocks and is widely used by investors in India and around the world as a measure of Indian capital markets. The NIFTY 50 Index was published by the NSE in 1996. NSE, (2012) However, Vaidyanathan (2016) estimates that only about 4% of India's economy/GDP actually comes from the Stock Exchange of India. Investopedia, (July, 2021) stock prices are determined in markets where the seller's offer meets the buyer's demand. But have you ever wondered what drives the stock market and what factors affect stock prices? Unfortunately, there is no clear equation for how exactly stock prices work. That said, I know of several forces that make stocks go up and down. These forces fall into three categories: fundamentals, technical factors, and emotional sentiments. In an efficient market, stock prices are primarily determined by fundamentals. Fundamentals are a combination of two elements at the basic level: An earnings base, such as earnings per share (EPS) and A valuation multiple, such as a P/E ratio, P/B ratios etc. The present study is based on the both the earning based ratios and valuation based ratios. The earning based ratios and Valuation based ratios are common termed as Accounting-Based Ratios. Accounting-Based Ratios are most often used by investors in determining a company's market value. Investors can use Accounting-Based Ratios such as ROE (Return on Equity), ROA (Return on Assets), P/E (Price to Earnings ratio), P/B (Price to Book Value ratio), P/S (Price to Sale Revenue ratio), and P/C (Price to Cash flow ratio) to predict the market value of a stock. If the intrinsic value of the stock is higher than the market value of the stock, investors will prefer to buy the stock. In this regard, the Accounting-Based Ratios are an important indicator for investment decisions.

2. LITERATURE REVIEW

Emin Zeytinolu, et,al. (2012) This paper tests the impact of market-based ratio on returns of current and one period ahead target stocks of Turkish insurance companies using panel regression model analysis from periods between 2000 - 2009 and Yield (P/E) and market-to-book ratio (M/B) as a proxy for market-based ratios. The result found that the market-based ratio is explanatory for both the change in the period-advanced price-earnings ratio as the change in the current price-earnings ratio. But EPS, P / E and M / B explain 6% of the current price-earnings ratio, while EPS, P / E and M / B explain 63% of the period-advanced price-earnings ratio. Hosseini A., et, al. (2011). The study analysed economic and financial performance non-operating variables and their relationship with stock prices. As a result of the investigation, it was concluded that operating profit does not have the any effect, and that non-operating profit is used to predict future earnings, and non-operating profit is more predictable in stock valuations. Pradeep Kumar Rangi and P. S. Aithal (2021), these study shows that accounting information is important and that has a positive impact on Paint's stock price. It is clear from both fixed and random effect model data. Sareewiwatthana, (2014), the attempt is made to study economic and financial performance variables such as PE, PEG and PERG ratios of stock selection. PEs, ratio showed a better tool to evaluate the stock selection and to predicate the maximum return over time. Ali, Kim and Ehab Shelbaya (2014) the main objective of this study is to develop an algorithmic financial model for evaluating values including sales, net income, EBDITA sales, and stock return using multiple linear regressions. The results show that price-to-sales and price-to-book have a significant relationship with stock return because PE ratio, EBDITA ratio and price to net income have a neutral effect on equity return. Hongduo Cao, et, al. (2019), predicting future stock prices is still a rigid task for many investors and researchers. Many researchers have been conducted to predict future stock prices using multiple independent variables. However, few offer their own, somewhat proven methods of predicting prices. (Maryyam Anwaar 2016)

the net profit margin, the return on total assets are positively correlated with the stock return, and the earnings per share also adversely affect the stock return, but the return on equity and the current ratio do not. It does not have anything to do with stock returns. The slight rise in dividends and prices this year is followed by the sale of shares by short-term investors, which in turn creates a surge in selling pressure in the market, an increase in supply factors and a fall in share prices. The paper emphasizes that the average of stock returns is slightly related to financial leverage, while market risk and company size are independent of the average of stock returns. Finally, there is a significant correlation between financial leverage and bond value. Chahin and Choudhry (2010) compared with growth and value of stocks in eleven european countries from 1988-2002. The low-growth portfolios highlighted the best and worst results, respectively. The tactics of trading with PEG ratio for the day trading and short term investing has recorded the highest rate of return. Seyyed Ali Lajevardi (2014). This paper studies the effect of the P / E and PEG ratios on price-earnings ratios of companies that accept on the Tehran Stock Exchange. In this study, to investigate the impact of P / E and PEG on price-earnings ratio and based on the regression model and Pearson correlation coefficient based on the performance of 138 companies during the 2004-2009 period. Kumar Debasis Dutta, et.al. (2018) the document attempts to influence the main determinants of P/E ratios of manufacturing companies listed on the Dhaka Stock Exchange. The results show that dividend yield, leverage, and NAV per share are important determinants of the price-earnings ratio. Among them, the dividend yield and size have a negative impact, but the leverage and net asset value per share shares have a positive effect on the price-earnings ratio. Muhammad Mubin, et.al. (2014) the purpose of this study is to use the data of 51 companies of the KSE 100 from 2004 to 2012 as a paradigm of the panel data. Arslan, Muhammad & Zaman, Rashid. (2014). The FS statistic of One Way ANOVA shows that the asset turnover ratio changes from industry to industry, while the equity multiplier and rate of profit do not fluctuate much between different industries. The price-to-earnings ratio (P/E) reflects the company performance and Friend and Puckett (1964), Basu (1977), Aydoan and Gürsoy (2000), Vijaykarthigeyan, Mathangi V and Dr K T. (2020), and Robert W. Holthausen and David F. Larcker, (1992) found that the stock price of have a significant positive correlation between the price-to-earnings ratio (P/E). Inta Kotane and Irina Kuzmina-Merlino (2012), Hence ratios are used to understand company financial statements as an easier way to understand and predicate the financial and economic performance. In the present scenario, the Indian stock market has seen an increase in stock investment from the past decade T. I'Ons and M. Ward. (2012). Martina Rut Utamia and Arif Darmawan (2019) The study found that earnings per share and market value added have a positive effect on stock prices, but different outcomes for variables such as debt-to-equity ratio, return on assets, and return on equity have no effect on share prices. Mahmoud. I. Noor.et.al. (June 2012,). He believes that higher current assets and lower current liabilities will lead to greater current ratios but lower operating cash flow. The results of this study show that the cash flow from operating activities is positively correlated with the current ratio.

3. OBJECTIVES OF THE STUDY:

The article aims to investigate whether key accounting ratios will affect the prices of National Stock Exchange companies stocks. The study includes following sub objectives

(1) To check the ability of the regression variables Return on Equity, Return on Assets, Price to Earnings ratio, Price to Book Value ratio, Price to Sale Revenue ratio, Price to Cash flow ratio to predict equity returns.

(2) To assess the real and adjusted residual of Fixed Effect Model and Random Effect Model.

(3) To run the Breusch and Pagan Lagrangian Multiplier test and Hausman test and select the appropriate model between the Fixed Effect Model and Random Effect Model.

4. RESEARCH METHODOLOGY

In this study, we try to study the relationship between the Accounting Ratios of NSE-listed companies with stock returns. Secondary data is used to study the effects of variables. Data collected for fifteen consecutive years from 2005 to 2020 CMIE Prowess data. The study used panel regression analysis along with the random and fixed effects models. This study used the Hausman test to select the most suitable model for the variables using the STATA 16 statistical software. Panel data analysis is more preferred model than time series and cross-section model because it includes both time-series and cross-section analysis, the dimensions of the cross-section are fixed, and the difference between unit-part cross-section models is constant.

The Panel Data Regression model can be expressed as*:*

$$Y_{it} = A_{it} + B_{it} + \varepsilon_{it}$$

4. a. INDEPENDENT VARIABLES

- Current study uses the six measures of independent variables they are;
- ROE (Return on Equity), ROA (Return on Assets), P/E (Price to Earnings ratio), P/B (Price to Book Value ratio), P/S (Price to Sale Revenue ratio), P/C (Price to Cash flow ratio),

$$SR_{it} = \alpha_0 + \alpha_1 ROE_{it} + \alpha_2 ROA_{it} + \alpha_3 PE_{it} + \alpha_4 PB_{it} + \alpha_5 PS_{it} a_6 PC_{it} + \varepsilon_{it}$$

Were as,

SR_{it} = It is the stock return per company ‘i’ the individual security for the ‘t’ year for ‘t’ year;

ROE_{it} = It is for return on equity for company the ‘i’ individual security for the ‘t’ year

ROA_{it} = It is the Return on Assets for company the ‘i’ individual security for the ‘t’ year

PE_{it} = It is the Price to Earnings for company the ‘i’ individual security for the ‘t’ year

PB_{it} = It is the Price to Book Value for the company the ‘i’ individual security for the ‘t’ year

PS_{it} = It is the Price to sales for the company the ‘i’ individual security for the ‘t’ year

PC_{it} = It is the Price to cash flows for the company the ‘i’ individual security for the ‘t’ year

ε_{it} = = It is Error Term in model for given variables

β_0 = Constant coefficient (intercept)

$\beta_1, \beta_2, \beta_3 \ldots\ldots \beta_{10}$ = Coefficients of the Independent Variables

4. b. Dependent Variable

Stock Return of the Firms

4. c. Constant Variables

Sales, Firm size, Current Ratio, Equity to Debt ratio and Return on Capital Employed ratio

Table-1; Details of variables

ROE	Wong Pik Har, et.al. (2015)**,** Return on Equity shows how a shareholders one rupee of investments is earned by the company through the earnings. ROE is measure that identifies the efficiency of companies in generating the returns. Profit After Tax $_{it}$ = earning are taken after the tax is adjusted for the current year (earning avaiable to shareholders)Average Equity$_{it}$ = Using the formula for the total equity capital value	$\boldsymbol{ROE_{it} = \frac{Profit\ After\ Tax_{it}}{Average\ Equity_{it}}}$

	at this end year and the total equity capital value at the end of the previous year, and divide by result by two	
ROA	ROA indicates that how profitability a company is relative to its total assets. Return on Assets is indicates the efficiency of assets to earnings of the company. It is measure to analysis, how a company is optimistically utilised in generating the sales for the year.Profit After Tax $_{it}$ = earning are taken after the tax is adjusted for the current year (earning avaiable to shareholders). Total Assets$_{it}$ = Are taken as of value after adjusting the depreciation and amortization for the current year from annual reports	$$ROA_{it} = \frac{Profit\ After\ Tax_{it}}{Total\ Asset_{it}}$$
PE	Price to Earnings ratio is one of the most recommended by analysist to investors. It signifies that, how much money is willing to invest in a single share by the investor in the company, for Rs. 1 of its earnings P_{it}= Price to security 'i' in period 't' price to taken as adjusted price for the year end for the current year and with current market price and total of number of outstanding share for the current year. E_{it} = Earnings per share of security 'i' in period 't'	$$P_{it} = E_{it} \times \left(\frac{P}{E}\right)_{it}$$
PB	Surendra P. Agrawal, Reza M. Monem And Mohamed Ariff, (1996)**,** Price to Book value of net assets shows a correlation between the market value of shares and book value of assets. PB ratio is used to assess the company stocks are undervalued or overvalued. Whereas, P_{it} = Price to security 'i' in period 't' price to taken as adjusted price for the year end for the current year and with current market price and total of number of outstanding share for the current year. B_{it} = Total Assets$_{it}$ - Total Liabilities $_{it}$ Total Assets one unit fixed assets for 'i' in period 't' value of assets for the year ended and Total Liabilities of long term debt and short term debt for the year ended with for 'i' in period 't'.	$$PB_{it} = \left(\frac{P_{it}}{Book\ value\ of\ net\ assets}\right)_{it}$$
PS	Price to sales ratio is used to valuate between stock prices to sales revenue. It is the value of company, that financial market willing to place on each unit of money of company's sales. Where, P_{it} = Price to security 'i' in period 't' price to taken as adjusted price for the year end for the current year and with current market price and total of number of outstanding share for the current year. S_{it} = Earnings after adjusted tax, interest and deprecations from the current year revenues prior distributing to shareholders as a dividend.	$$PS_{it} = \frac{P_{it}}{S_{it}}$$
PC	It is the ratio of company market value with operating cashflows. It is ratio which measures the price of a company's stock relative to how much cashlow it generates for the year.	$$PC = \frac{P_{it}}{C_{it}}$$

	P_{it} = Price to security 'i' in period 't' price to taken as adjusted price for the year end for the current year and with current market price and total of number of outstanding share for the current year. C_{it} = Cashflows are taken for the ending balance after preparing the cashflows statement for the current year of the company	
SR	The estimation of annual stock returns is the change in share prices in year current 't' year plus dividend 'i' individual year 't' divided by adjusted closing share prices in year t-1.Were; SR_{it} = Stock returns 'i' individual returns for the 't' year. P_{it} = Price of share 'i' individual returns for the 't' year D_{it} = Dividend of share 'i' individual returns for the 't' year P_{it-1} = Price of share 'i' individual returns for the previous year 't-1' year	$$SR_{it} = \frac{P_{it}+D_{it}+P_{it-1}}{P_{it-1}}$$

4. d. Sample Size and Criteria:

A convenient sampling technique is used to select the samples of 160 companies from NSE listed companies. The following factors are considered for sample selection:

- Selected samples are given overall good returns of above 250% in fifteen years
- Companies financial year is ending in march
- The companies don't halt for more than a year
- The companies do not fall under financial Intermediations
- The company's financial information is available throughout the year

4. e. Regression Model:

In the regression model above, "Y" represents the dependent (or predictive) variable and "X" represents the independent variable (explanatory variable). The coefficients of the model are represented by "A" and "B" respectively, and in this model "i" and "t" are individual elements and time, respectively. In the study, the individual elements are the contribution of the cross section of the National Stock Exchange companies. Time refers to the time series of sequences in which the data were observed. The Fixed Effect Model expects E_{it} to show non-stochastic behavior on 'i' and 't'. This Random Effect Model is considered stochastic behavior. Pooled OLS models assume homogeneity. That is, it does not distinguish between panel sections. Therefore, it takes the time to base on the whole, without considering the unique characteristics of each element in the panel's dataset. The fixed effects model allows for interstitial or unique properties of the cross section so that each cross section can have a constant or intercept, but is invariant over time, i.e. "A" in the above equation. Is changed element by element and remains immutable at Perspective of time. However, the Random Effects (RE) model has a common "A", that is, the average of all cross sections "A". In the Random Effect model, "E" changes stochastically. RE assumes that each particular effect is uncorrelated with the independent variable. The distribution is all normal with a mean of '0'. The Hausman test is most preferred test to examine the correlation between predictor variable and the error term. It helps to determine the suitability of the Fixed Effect model or Random Effect model for a given case. The principle of the Breusch and Pagan Lagrange multiplier test, whether the variance of the regression error depends on the value of the explanatory variable. In this case, heteroskedasticity exists. It helps to determine the suitability of the Pooled Data Model or Random Effect Model. The Akaike

information criterion (AIC) is a statistical model how best the model is significant from the given data. According to AIC, the best-fit model is one that explains the most variation with the fewest possible explanatory variables. To compare model estimates using AIC, you must first compute the AIC for each model. If one model has a lower AIC than another by more than two AIC units, it is considered significantly better than that model. The Durbin–Watson statistic is a test statistic in statistics that is used to detect the presence of autocorrelation in the residuals (prediction errors) of a regression analysis. The Durbin-Watson statistics range from 0 to 4. Values close to 2 indicate no autocorrelation; values close to 0 indicate positive autocorrelation; values close to 4 indicate negative autocorrelation.

5. RESULTS AND ANALYSIS OF DATA

5. a. Descriptive Analysis

Using fundamental statistics and mathematics methods, descriptive analysis is used to investigate the quantitative properties of obtained data. It makes it easier to translate and comprehend raw data into the required outcomes. The average return of all companies in the last fifteen years is around 40% and the P/E ratio is 48%, that is, 48% of price changes are affected by the current cash flow of the deal. The contribution of sales to price is approximately 12%, and 47% of business income is affected by stocks. The impact of price, return on assets has a 27% impact on prices, and return on equity has an impact on share prices of 54%. The data are normally distributed with kurtosis and the skewnes values are in the range of 3 to 5 and 0.6 to 1.9. Also, the values of all variables are positive.

Table-2; DESCRIPTIVE ANALYSIS

	P/C	P/S	P/B	P/E	RO/A	RO/E	Stock Returns
Mean	0.47758	0.115316	0.38372	0.46173	0.272575	0.549357	0.398030
Standard Error	0.24344	0.018363	0.006813	0.01723	0.02931	0.087943	0.062707
Standard Deviation	0.534575	0.734285	0.027231	0.068879	0.117195	0.516611	0.107516
Sample Variance	0.176194	0.206174	0.053742	0.004744	0.013735	0.136655	18.27635
Kurtosis	3.42623	3.6265	4.44689	4.79717	2.428951	5.242074	4.115443
Skewness	0.659783	1.62374	1.974657	0.854648	0.614922	1.670523	0.585418
Count	2400	2400	2400	2400	2400	2400	2400

5. b. Correlation Analysis

Correlation analysis determines the relationship between the two or more variables. Correlation analysis studies the direction between the variables and it also determines the strength of the relationship of variables in the study. The table-2; shows the results of correlation between the explanatory variable and predicative variable, the table values shows that explanatory variable have positive and significant influence on determination of predicative variables. Price to earnings have positive and significant impact on stock returns for the study, a small change in price to earnings ratios have a greater effect in stock returns with 74 percent value and return on equity have 63 percent effect on determination of stock returns, Whereas with 37 percent impact on stock returns price to sales have least effect on returns for the study.

Table-3; CORRELATION ANALYSIS

	P/C	P/S	P/B	P/E	RO/A	RO/E	Stock Returns
P/C	1						
P/S	0.6207	1					

P/B	0.4860	0.5221	1				
P/E	0.7132	0.6242	0.7913	1			
RO/A	0.4542	0.7546	0.6354	0.6246	1		
RO/E	0.3716	0.5176	0.6799	0.6950	0.4120	1	
Stock Returns	0.4541	0.3743	0.5868	0.7382	0.5828	0.6379	1

5. c. Panel Regression analysis

From the table results it found that P-Value of Breusch and Pagan Lagrangian test is 0.00278 which less than 0.05, this proves that Pooled Regression Effect Model is not significant to explain the outcome of the study when tested between Random Effect Model and Pooled Regression Model. In case of Hausman Test results P value of 0.19745 is more than the 0.05 hence it is proved that random effect model is more significant to fit the data. From the results of both the estimates it is clear that random effect model a better model to explain the predicative variables for the study.

Table-4; PANEL REGRESSION ANALYSIS

Models	Wald chi2	chi2 /chibar2	Prob > F	Prob > chi2
Pooled Regression Model	-	-	0.00010*	-
Fixed-Effects Model	-	-	9.34825**	-
Random-Effects Model	17.49		-	0.09421*
Hausman Test		3.28	-	0.19745**
Breusch and Pagan Lagrangian Multiplier test	-	0.00	-	0.00278*

Hausman Test:

H_0: Random Effect Model Is Appropriate

H_1: Fixed Effect Model Is Appropriate

Decision Rule: Select Null hypothesis if the Prob > chi2 is more than the 5% level of significance.

Decision Rule: Reject Null hypothesis if the Prob > chi2 is less than the 5% level of significance.

Breusch and Pagan Lagrangian Multiplier test:

H_0: Pooled Regression Model is Appropriate

H_1: Random Effect Model is Appropriate

Decision Rule: Select Null hypothesis if the Prob > chi2 is more than the 5% level of significance.

Decision Rule: Reject Null hypothesis if the Prob > chi2 is less than the 5% level of significance.

Source: Calculated by author using stata software. *Significant at 5% and ** Significant at 10%

Table 4; highlights results of random effect model of the study. The values of the model proved to be significant in showing the relationship of the variables which are drawn from the population. In statistics, the random effects model, also known as the variance component model, it is a statistical method in which the parameters of the model are random variables. It is a hierarchical linear model, which assumes that the data to be analyzed is extracted from the hierarchical structure of different groups, and the differences in these hierarchical structures are related to the hierarchical structure.

Based on Table 4, the influence of ROE (X_1), ROA (X_2), PE (X_3), PB (X_4), PS (X_5) and PC (X_6) on stock returns (Y) have a regression equation as follows:

$$Y= -0.4876+1.58093X_1+ 3.7481X_2+8.95214X_3+2.93501X_4-6.71484X_5 -3.95384X_6$$

The constant value (α) is -0.4876 shows that if the variables X_1, X_2, X_3, X_4 X_5 and X_6 are zero, then the value of Y is equal to 3.22204. And Coefficient value (β) for variable X_1 is 1.58093 and is positive. This means that every X_1 increases, then Y will increases by 1.58093 assuming variables X_2, X_3, X_4 X_5 and X_6 are fixed. Further the coefficient value (β) for variable X_2 is 3.74815 and is positive. This means that every X_2 increases, then Y will also increase by 3.74815 assuming the variables X_1, X_3, X_4 X_5 and X_6 are fixed. And Coefficient value (β) for X_3 variable is 5.95214 and is positive. This means that every X_3 increases, then Y will also increase by 5.95214 assuming variables X_1, X_2, X_4 X_5 and X_6 are fixed. Additionally coefficient value (β) for variable X_4 is 2.93501 and is positive. This means that every X_4 increases, then Y will also increase by 2.93501 assuming variables X_1, X_2, X_3 X_5 and X_6 are fixed. And coefficient value (β) for variable X_5 is 2.93501 and is positive. This means that every X_5 increases, then Y will also increase by 2.93501 assuming variables X_1, X_2, X_3 X_4 and X_6 are fixed. Lastly coefficient value (β) for variable X_6 is -3.95384 and is negative. This means that every X_6 decreases, then Y will also increase by -3.95384 assuming variables X_1, X_2, X_3 X_4 and X_5 are fixed. According to the coefficient (R^2), it can be seen that this variable has a very strong correlation coefficient (R-squared), which is equal to 0.8821. The coefficient of determination (R-squared) is 0.8821, which means that 88.21% of variable stock returns (Y) are affected by ROE (X_1), ROA (X_2), PE (X_3), PB (X_4), PS (X_5) and PC (X_6). The remaining 12.79% are affected by other factors of the study. By referring to the results of random effect model, the independent variable simultaneously affects the dependent variable. F statistic probability value is 0.00010 < 0.05. In t test is done to show how far each independent variables, ROE (X_1), ROA (X_2), PE (X_3), PB (X_4), PS (X_5) and PC (X_6) individually influence on the dependent variable of stock return (Y). Impact of Returns on Equity (ROE) on stock returns: ROE probability value is higher than α: 0.05 (0.151 > 0.05). Therefore, $H_0 is$ accepted and H_1 rejected. This shows that ROE (X_1) has a positive and significant effect on stock returns (Y). ROE have direct effect on prices because investors rely on the earnings of the business. In case of Return on Assets on stock returns: ROA P-Values is higher than α: 0.05 (0.12 > 0.05). Therefore, $H_0 is$ accepted and H_1 rejected. This shows that ROE (X_2) has a positive and significant effect on stock returns (Y). ROA provides managers, investors, or analysts how efficient a company's management can use its assets to generate revenue. It is proved that overall company's management is significant in using the total assets of the business. Further the effect of Price to Earnings on stock returns: PE, P-Values is higher than α: 0.05 (0.27 > 0.05). Therefore, $H_0 is$ accepted and H_1 rejected. This shows that PE (X_3) has a positive and significant effect on stock returns (Y). In other words, the price-to-earnings ratio shows what the market wish to pay for a stock today based on past or future returns. Overall results of study shows that all sample companies have good earnings and maintained good track record of earnings and incase of effect of Price to Book value on stock returns: PB, P-Values is higher than α: 0.05 (0.087 > 0.05). Therefore, $H_0 is$ accepted and H_1 rejected. This shows that PB (X_4) has a positive and significant effect on stock returns (Y). Investors use the price to book value to measure whether a company's stock price is properly valued. From the results of the study, shows that companies stock prices are on par with intrinsic value hence investors wish to invest in these companies. For Price to Sales on stock returns: PS, P-Values is smaller than α: 0.05 (0.031 < 0.05). Therefore, $H_0 is$ rejected and H_1 accepted. This shows that PS (X_5) has a negative and insignificant effect on stock returns (Y). For the price-to-sales ratio indicates how much a market is worth per rupees of a company's sales. This ratio is significant for evaluating growth stocks that are not yet making a profit or are suffering from temporary hurdles. Lastly Price to Cashflows on stock returns: PC, P-Values is smaller than α: 0.05 (0.028> 0.05) Therefore, $H_0 is$ rejected and H_1 accepted. This shows that PS (X_6) has a negative and insignificant effect on stock returns (Y). The price to cash flow (P/CF) ratio is used to measure the value

of the stock price with operating cash flow of business per share. A high P/CF ratio indicated that the generally selected firm of the study has higher P/CF values from the past years that indicate shares are trading at a high price but not sufficient to meet operating cash flows to support the multiple. This indicates samples firms are often faced the problem of working capital cashflows requirements. The study had Durbin-Watson statistic value of (2.0393) indicates that there is no autocorrelation in the model; Akaike Info Criterion have a negative value of (-9.5463) and Bayesian Information Criterion value of (7.4583) both AIC and BIC criterion values proved that the model have a relative strength to be fit model.

Table-5; RANDOM EFFECT MODEL

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE	1.58093	0.45093	1.45	0.151**
ROA	3.74815	0.14477	0.32	0.124**
PE	5.95214	0.78588	2.10	0.269**
PB	2.93501	0.51472	1.67	0.087*
PS	-6.71484	0.71743	-1.50	0.031**
PC	-3.95384	0.34515	-2.08	0.028*
Constant	-0.48736	0.75091	1.04	0.059*
R-Squared	0.8821			
Adjusted R-Squared	0.81283			
Root Mean Square Error	15.9945			
Prob (F-statistic)	0.00010*			
Akaike Info Criterion	-9.5463			
Bayesian Information Criterion	7.4583			
Durbin-Watson statistic	2.0393			

Source: Calculated by author using stata software. *Significant at 5% and ** Significant at 10%

6. CONCLUSION

According to the analysis results, it can be concluded that the explanatory variables will have a significant impact on the stock returns of companies listed on the National Stock Exchange from 2005 to 2020. According to the ROE value, when a company's earnings increase, it is expected to receive shareholder dividends and capital audits, and when the stock price starts to rise further, ROE has a significant impact on the stock return decision, and most investors turn to this tool as a key indicator of their investment. (PB) ratio shows how optimistic a company is about its assets on its balance sheet. The (P/B) ratio has been recommended by value investors for decades and is widely used by market analysts. The results show that the stock price P/B ratio has a positive and significant effect on the stock's return. In case of the (P/E) ratio indicates that all selected companies have managed their income efficiently over the past years, and the P/ E ratio is positive for returns and has a significant impact. The selected companies have good P/A ratios because the sample companies are managing their assets optimistically to produce the desired results, and further (P/A) ratio has a significant positive impact on stock returns. P/C ratio Price to cashflows and (P/C) ratio, Price to Sales have a negative impact on the stock returns. The major of the companies have under gone huge investment in expansion and diversification of their business in this past decade due to which cashflows may be affected. Businesses need to pay attention to the proper sources of funding to run their business. Companies have to focus on cost and risks so that it can be minimized for

the growth process of the investment and optimize the profits of the enterprise. Businesses need to be wary of raising resources from debt, although this has the potential to yield profits, on the other hand, it can be a significant risk that could result in losses to the company if the business fails to meet its obligations.

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