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Determinants of Equity Share Prices in National Stock Exchange of India: A Panel Data Approach

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1. Introduction

Abstract: The movement of share price depends upon some indicators that investors consider while making investment decisions. The study aims to analyse the determinants of share prices in National Stock Exchange of India. It covered a period of five years and used panel data approach on twenty-five Nifty representative stocks to establish the determinants of share prices. The data were analysed with the help of MS Excel 2013, stata-13 and SPSS-2 software. The study reveals that 58% of the fluctuations of share prices in India is affected due to the variables like Earnings per Share, Price to Earnings Ratio, Price to Book Ratio, Return on Net Worth, Dividend Per Share, Price to Net Profit Ratio, Profit Before Dividend, Interest and Tax and Gross Domestic Product. The study suggests that investors can make profitable decision by considering the determinants that have a significant bearing on share prices.

A sound financial system plays a very important role for the development of economy of any country. The growth and performance of business entities determines the soundness of the financial system. Financial system is a broader term that comprises of financial instruments, institutions, services and other support system. Financial instruments constitute majority of the dealings in the financial system. A financial system's primary job is to mobilise savings and invest them in productive projects and the free flow of capital to more productive companies is aided by a well-functioning financial system. Investors purchase financial instruments of companies in the form of shares, debentures and bonds.

Stock market is also a part of a financial system where second-hand shares of companies are bought and sold. Again, financial performance and other economic indicators affect the price of a company's share. Investment in shares is made for earning some return on investment in future. Investors make stock selections based on a variety of financial and economic indicators. They always try to avoid risk and volatility in investment. Investors want to minimize loss due to fluctuations in price and maximize returns on their investments.

However, it is necessary to consider the factors that determine the prices of shares while making investment decisions. There are several fundamental factors both internal as well as external that exists in the system which have a significant bearing on the stock price (Kevin , 2012). The internal factors are firm's specific financial indicators while the external factors are economic indicators. Theories suggest that share price of a company changes with a change in its fundamental variables like market interest rates, price-earnings ratio, gross domestic product, earnings per share, dividend per share, book value, dividend pay-out ratio, financial leverage, inflation and size (Oyama, 1997; Enow and Brijlal, 2016; Almumani , 2014; Arshad *et al.*, 2015).

Again, there are two approaches to be considered at the time of investing in shares, namely; fundamental approach and technical approach (Sharma, 2011). Fundamental approach predicts share prices for long term on the basis of past performance indicators whereas the latter predicts the share price on the basis of charts, trends and patterns for short span of time(Adebiyi and Adewumi, 2017). The study used fundamental approach to determine its impact on share prices, while ignoring the technical approach as it is used for predictiong share prices for short period of time. Fundamentals analysis involves depth analysis of company's profile, performance and profitability to determine its intrinsic value. Fundamental analyst believes that share prices move towards its intrinsic value. If share price is below its intrinsic value, the investors will buy share and vice versa. Therefore investors should consider the fundamental variables to safeguard their investment of getting negative returns on investment. In respect of this, the present study tried to analyse few fundamental factors that have a substantial impact on future prices of shares. They may predict share price to certain extent by considering the established factors. So, the study investigated the impact of ten fundamental variables related to share prices in National Stock Exchange of India (NSE).

2. Review of Literature

A lot of research has been examined in order to determine the elements that influence the market price of shares in various markets across the globe.

Oyama (1997) studied the relationship between fundamental variables and market price of share in Zimbabwe stock market and established a link between stock prices and some macroeconomic indicators. The study used dividend discount model, regression model and concluded that the monetary policy and market interest rates are the major determinants of share prices in Zimbabwe. Enow and Brijlal (2016) used a multivariate regression model to know the determinants that affects share prices. They used 14 businesses listed on the Johannesburg Stock Exchange over a period of five years from 2009 to 2013. Only micro variables were evaluated as determining variables or factors in the study and it was discovered that the price-earnings ratio, earnings per share, and DPS had a substantial impact, accounting for roughly 57.80% of share price change. EPS and PE, on the other hand, were favourably correlated, whereas dividend per share was negatively correlated in their study. The study concluded that business finance managers can increase shareholder value by boosting earnings per share (EPS), price-earnings (P/E) ratio and dividend per share.

Almumani (2014) used statistical techniques such as ratio, correlation and multiple regression for a set of independent and dependent variables on some of listed banks in Stock Exchange of Amman for a period of eight years. It was attempted to identify financial (quantitative) factors that had a significant bearing on the share prices of a company. Dividend Per Share, EPS, Book Value, Dividend Pay-out Ratio, PE Ratio, and business size were the quantitative factors included as independent variables. The study concluded that EPS, Book Value, PE and the firm's size all have a substantial effect on the market price of shares.

Arshad *et al.* (2015) examined the detrmining factors of banking shares in Karachi Stock Exchange from 2007-2013. The study attempted to reveal both internal as well as external factors that have an impact on share price. By using linear regression model for the analysis, Book to Market, Price to Earnings Ratio, DPS leverage, earnings per share, GDP and interest rates were considered as internal and external factors (independent variable) and market price of 22 banking sector companies were considered as dependent variable. The result indicates that EPS have more impact on share prices compared to other variables. From the study it is revealed that DPS and leverage have no relationship with share prices.

Arkan (2016) investigated the relationship between financial ratios to estimate share price in stock market by using twelve financial ratios depending on data of fifteen across three sectors over a period of 2005-2014 in the Kuwaiti Stock Exchange. The method used in the study was multiple regression model and concluded that the most effective ratio to be considered in the industrial sector to forecast share price are ROA, ROE and Net Profit Ratio. Again, the most effective ratio to be considered in service and investment sector to forecast share price are ROA, ROE and Net Profit Ratio. Again, the most effective ratio to be considered in service and investment sector to forecast share price are ROA, ROE, P/E and EPS ratio. The study concluded that investors can rely upon these ratios while making investment decision based on sector to sector. Sharma (2011) reveals the impact of micro variables such as DPS, EPS, P/E Ratio, BV, net worth and size of the firm (in terms of sale) on share prices in listed scripts of BSE for the period 1993-2008. The study used secondary sources like CMIE, SEBI annual reports, BSE annual reports and Equity Master etc. for collecting data of 115 sample companies divided into six industries. To establish the relationship between the variables, correlation and multiple regression model have been used to test the significance. The result reveals that revealed that EPS, DPS and BV have significant influence on the price of shares.

Irfan and Nishat (2002) examined the joint effect of fundamental factors that that have impact upon share prices in the long run by taking all the firms of KSI of Pakistan for a period of twenty years. The study utilised cross-sectional least squares regression to test the stock volatility in relation to fundamental variables. The fundamental variables namely dividend yield, pay-out ratio, leverage, asset growth, size of the firm and change in earnings were taken into consideration. The findings of the study implied that earning volatility and asset growth are not significant to influence price. Zadeha *et al.* (2013) studied relationship between fundamentals (financial ratios and economic variables) and stock return using panel data (econometric methods) for twenty-two pharma stocks listed in Tehran Stock Exchange for a period of seven years. The nine fundamental variables include current ratio, inflation rate, market share, total asset, exchange rate and other variables were considered into the study and it concluded that those nine fundamental variables have 80 per cent of influence on pharmaceutical stock returns. Alam and Karim (2016) analysed the factors that affect stock prices in cement companies by using a panel data set of seven cement companies of Dhaka Stock Exchange for the period of ten years i.e., 2006-2015 and investigated OLS regression with fixed effect model and random effect model. They have considered six fundamental factors, which are Earning Per Share, Net Asset Value Per Share, Consumer Price Index, Gross Domestic Product, Price Earnings and Interest Rate Spread. It was found that EPS, NAVPS, P/E and CPI have significant impact on the cement stock in Bangladesh while other variables were insignificant. With a moderate r square value of 0.4567 in both fixed and random effect models, the study recommends that investors should consider the significant factors before making any investment decision in cement industry in Dhaka Stock Exchange.

Srinivasan (2012) attempted to explain the fundamental factors determining share prices by using panel data for a period of 2006-2011 across six major sectors of Indian Market, namely, Energy, IT, Pharmaceutical, Infrastructure, manufacturing and banking. The fundamental variables take into consideration were BV, DPS, EPS, PE and size of the firm. Both fixed and random effect model have been used to analyse the data and the results showed negative relation of DPS on share prices. The study concluded that company fundamental ratios are very important to consider while assessing stocks for investment. Sharif and Pillai (2015) used panel dataset of 41 firms for a period five years to establish relationship between share prices and other financial indicators of companies in Bahrain stock market. The study considered panel dataset of 41 firms for a period five years i.e. 2006-2010 for their analysis. The method is based on Fixed effect and Random effect models and used the variables namely BV, ROE, DPS, PE firm size and debt to assets to get the knowledge of the impact of these variables on market price of a share. The study revealed that the most of the variables have an impact on stock prices of Bahrain financial market. With a high r square of 0.80, the study concluded that people can make investment by considering the determinants and may get fair return. Singh (2017) analysed the determinants of share price of twenty-six non-financial firms listed in Muscat Stock Exchange, Oman. The study used panel data using random effect model and analysed the independent variables namely, price-earnings ratio, debt-equity ratio, earning per share, dividend pay-out, and firm size against closing value of share price at the end of a year as dependent variable for a period of five years i.e. from 2011 to 2016. The analysis revealed that earning per share, debt equity ratio are significant determinants of stock price.

Adebiyi and Adewumi (2017) predicted stock price for short term by applying Auto Regressive Integrated Moving Average (ARIMA). They used E-views software version 5 and the study covers the period from 1995-2011 having a total of 3990 numbers of observation. Their result revealed that the ARIMA model can predict price for short term and can be used by investors as a tool of stock price prediction. The study suggested that ARIMA model can help investors to take investment decision. Malhotra (2013) analysed the determinants of share prices by several ratios as independent variable by using multiple regression model for the period 2007-12. The findings revealed that firms' Book Value, EPS and PE have a bearing on share prices.

In existing literature, there is a composite view on the determinants of share prices and the variables. After reviewing the available literature, it has been observed that few numbers of studies

have been undertaken in India in this field. There exists a mixed opinion on positive and negative impact of factors determining market price of shares. However, no study considered both internal as well as external factors at the same time to investigate the impact of variables and its affect in share prices on NSE. The study will fill this gap and contribute in the field of literature by analysing the internal as well as external factors at the same time that have a significant bearing on share prices in Indian capital market context. This will encourage further researchers to investigate the phenomenon after considering limitations of the present study.

3. Objectives of the Study

The study attempts to achieve the following objectives:

- To analyse the determinants of fundamental variables that affect equity share prices of company.
- To suggest factors that should be taken into consideration while making investment in company shares.

4. **Research Methodology**

The study has been undertaken to analyse the determinants of fundamental variables that have significant bearing on stock prices. As the objective of the study is to establish the relationship between share prices and fundamental variables, the researcher has identified both internal and external variables such as earnings per share (EPS), price to earnings ratio (P/E), price to book ratio (P/B), return on net worth (ROE), dividend per share (DPS), price to net profit ratio (PNR), profit before dividend interest & tax (PBIT), interest rate (Int.R), inflation rate (Inf.R) and gross domestic product (GDP) (Alam et al, 2016; Sharif et al, 2015; Srinivasan, 2012; Singh, 2017). The study has been conducted on select Nifty representative stocks and it is explanatory in nature. It has covered a period of five years i.e., from April, 2012 to March, 2017 i.e. 01-04-2012 to 31-03-2017. As Nifty accounts for a substantial share in corporate sector in India in terms of turnover, growth, market capitalisation and profitability etc., it has been chosen for study. NSE is considered as one of the barometers of Indian economy across world. Out of many listed stocks in NSE, only five major sectors from Nifty50 have been identified and each sector comprises of top five companies having highest market capitalisation as it is very difficult to find determinants of all indices and companies of NSE. Hence, the sample size of the study is limited to 25 (twenty-five) number of stocks that represent NIFTY index. These sectors are; IT, Automobile, Banking, Pharma and other Sector. Other sector includes major companies listed in NSE like Asian Paints, HUL, Reliance, ITC and Tata Steel. These are depicted in Table 1.

4.1. Sources of Information

The research study is based on secondary data which were collected from Yahoofinance.com, Moneycontrol.com and NSE website. Price movement and different financial indicators of the select Nifty representative companies are collected from Yahoofinance, Moneycontrol and NSE website for the period of five years i.e., from April, 2012 to March, 2017. Microsoft Excel-2013, Stata-13 and IBM SPSS Statistics-21 have been used to make all the necessary calculations.

Sl. No.	Industry	Number of Companies	Companies Covered		
1.	Software	5	Tata Consultancy Services (TCS), Tech Mahindra, WIPRO, Infosys and HCL Technologies		
2.	Automobile	5	Maruti, Mahindra & Mahindra, Bajaj-Auto, Hero Motors and Tata Motors		
3.	Banking and Finance	5	HDFC, Axis Bank, State Bank of India, ICICI Bank and Kotak Mahindra Bank		
4.	Pharmaceuticals	5	Dr Reddy's Lab, Aurobindo Pharmaceutics, CIPLA, Lupin and Sun Pharma		
5.	Miscellaneous	5	Reliance, ITC, Hindustan Unilever, Tata Steel, Asian Paints		

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Source: Authors' Own Compilation

4.2. Panel Data Analysis

For the analysis of data to know the determinants of share prices, panel data analysis has been used. This data analysis is also known as cross-sectional or longitudinal time series data. However, Panel data has advantage over cross sectional and time series data. It is a cross sectional time series dataset which have repetitions in number of variables. It helps researchers to get relatively higher level of statistical validity then using cross-sectional data as it reduces the interaction between variables that result in more reliable parameters (Sharif *et al.*, 2015). This technique is considered more efficient in the field of finance as it reduces the co-linearity of the predictor variables. The study uses both panel data methods i.e. fixed effect model as well as random effect model to find out the determinants of share prices in NSE, India. As the fixed effect model considers the firm's specific effect and the random effect considers the firm's time effect. So, the general model of fixed effect is written as:

MPS
$$_{i} = \alpha_{i} + \beta X_{i} + \mu_{i}$$
 $i = 1,..., N; t = 1,..., T$ (i)

Where, MPS_{it} is the yearly average share price, X_{it} is the determinant k for ith stock in period 't', bis the parameter to be estimated and m_{it} represents error. With the help of vector parameterb, the individual coefficients are estimated together. In order to validate the fixed effect model, F-test is required to be performed Singh (2017). The random effect model is defined as:

MPS_{it} =
$$\alpha_i + \beta X_{it} + \mu_{it}$$
 i = 1,..., N; t = 1,..., T (ii)

In random effect, other than fixed constants, α_i is considered as random variable. The a are considered to be independent of the errors μ_{it} . X_{it} is determinant k for ith stock in tth period. Finally, Hausman test is being conducted to compare between these two. A FE considers differences in intercepts through the study period or groups, where a RE model shows differences in error variations. The general specification of the parameters of the model is as follows:

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$$MPS_{it} = \alpha_i + \beta_1 EPS_{it} + \beta_2 PE_{it} + \beta_3 PB_{it} + \beta_4 ROE_{it} + \beta_5 DPS_{it} + \beta_6 PNR_{it} + \beta_7 PBIT_{it} + \beta_8 INT_{it} + \beta_9 INF_{it} + \beta_{10} GDP_{it} + \mu_{it}$$
(iii)

In the above specification, MPS represents Market Price of Share and the explanatory variables EPS, PE, PB, ROE, PNR, DPS, PBIT, INT, INF, GDP denotes earnings per share, price to earnings ratio, price to book ratio, return on net worth, price to net profit ratio, dividend per share, profit before dividend interest & tax, interest rate, inflation rate and gross domestic product. A description of the variables that have been used in the study is exhibited in Table 2.

Туре	Symbol	Equation		
Dependent	MPS	Highest MP in a Year + Lowest MP in a Ye		
		2		
Independent	EPS	Net Profit - Preferred Dividends		
		Outstanding Shares + Diluted Shares		
		Market Price of Share		
Independent	P/E	Earning Per Share		
		Market Value per Share		
Independent	P/B	Book Value per Share		
Independent	ROE	$\frac{\text{Equity Earning}}{N} \times 100$		
		Networth		
		Dividend paid to equity shareholders		
Independent	DPS	Number of Equity Shares		
Independent	PNR	Net Operating Revenue		
-		Book Value per Share		
		Profit before Interest & Tax		
Independent	PBIT	$\frac{10000 \text{ before interest cer raw}}{\text{Net Sales}} \times 100$		
Independent	Int.R	Repo Rate by RBI		
Independent	Inf.R	Consumer Price Index (CPI)		
Independent	GDP	$\frac{\text{Current GDP - Previous GDP}}{\times 100}$		
	Dependent Independent	DependentMPSIndependentEPSIndependentP/EIndependentP/BIndependentROEIndependentDPSIndependentPNRIndependentPBITIndependentIndependent		

Table 2: Summary of Variables Involved in the Study

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The present study uses panel data comprises of annualised time series data for the period 2013-2017 and cross section data of five sectors listed in NSE namely software, automobile, banking and finance, pharmaceuticals and miscellaneous.

5. Data Analysis

This section is segregated into three sections namely, diagnostic analysis, descriptive analysis and regression model analysis of the data considered in the study.

5.1. Diagnostic Analysis

The study uses multicollinearity tests to determine whether the dataset in the study has any econometric impact (Baltagi, 2010). Pearson correlation test is used to find the relationship between variables which is considered as first indicator while Variance Inflation Factor (VIF) and the Inverse VIF are considered as second indicator of multicollinearity. Table 3 depicts the Pearson Correlation Coefficients among the independent variables. Gujarati and Porter (2009) stated that if the coefficient of correlation between two variables is more than 0.8, there will be multicollinearity among variables. However, the correlation coefficient values among the variables in Table 3 is below 0.8, which indicates that the study does not suffer the problem of multicollinearity.

Table 3: Pearso	n Correlation	Matrix for	Variables
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	MPS	EPS	P/E	P/B	ROE	DPS	PNR	PBIT	Int.R	GDP	Inf.R
MPS	1										
EPS	.596	1									
P/E	.034	031	1								
P/B	.014	208	.059	1							
ROE	.077	.133	.129	.737	1						
DPS	.562	.739	020	.042	.298	1					
PNR	044	317	243	.240	177	145	1				
PBIT	.010	.146	.101	002	.301	.173	004	1			
Int.R	129	.054	.087	.079	.085	015	009	.015	1		
GDP	.145	081	106	.041	054	017	.061	001	.072	1	
Inf.R	233	.063	.082	.023	.127	012	064	011	.291	510	1

Source: Authors' Own Compilation

Table 4 shows the values of Variance Inflation Factor (VIF) and Inverse VIF for the independent variables. The result of the variables shows that there is no multicollinearity as the VIF and Inverse VIF values for all independent variables are less than 5 and 20 per cent respectively (Baltagi, 2008).

Variable	VIF	Inverse VII		
EPS	3.987	.251		
P/E	1.139	.878		
P/B	4.694	.213		
ROE	4.754	.212		
DPS	3.653	.274		
PNR	1.883	.531		
PBIT	1.434	.697		
Int.R	1.219	.820		
GDP	1.488	.672		
Inf.R	1.624	.616		
Mean VIF	2.587			

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Source: Authors' Own Compilation

5.2. Descriptive Analysis

Descriptive statistics of the independent variables that are considered in the study are depicted in Table 5. Table 5 shows the summary statistics of yearly data consisting twenty-five companies from 2013 to 2017. The mean, standard deviation, maximum-minimum values of independent variable are exhibited in the said table.

Variable	Mean	Standard Deviation	Minimum	Maximum	
EPS	55.3492	49.24215	-14.7	243.3	
P/E	17.07296	53.66383	-180.23	381.13	
P/B	6.62864	7.44190	.44	50.71	
ROE	21.94552	21.66487	-38.2	142	
DPS	16.6744	19.40287	0	85	
PNR	4.7576	6.33739	-10.9	41.98	
PBIT	22.12496	10.77129	-4.32	48.31	
Int.R	7.66	.67680	6.90	8.90	
GDP	7.42	.67313	6.39	8.26	
Inf.R	6.112	2.7543	2.49	10.91	

Table 5: Summary Statistics of Independent Variable

Source: Authors' Own Compilation

In Table 5, a fluctuation of minimum and maximum for PE is min=-180.23, max= 381.123. That means investors are ready to pay high premium for well performing companies and they are hesitant to

buy underperforming shares. It is noticed in mentioned table that dividend policy which is expressed as dividend per share has a significant difference between the minimum and maximum values (Min=0, Max=85) due to the fact that there are companies which have zero pay-out ratio again there are companies having full pay-out. The variables that have highest standard deviation is PE followed by EPS and ROE. However, the minimum value of PBIT is negative, that represents some firms suffered loss during certain point of time in the study period.

5.3. Regression Model Analysis

Table 6 depicted the estimation results of fixed effect model (FE) and random effect model (RE)

Independent Variable	Fixed Effect Model			Random Effect Model			
	Coefficient	t	p-value	Coefficient	Ζ	p-value	
Constant	988.66181**	2.00	0.048	968.07288*	1.88	0.060	
EPS	3.169489*	1.92	0.059	4.4534016***	2.72	0.007	
P/E	.72469297	1.11	0.271	.93677353	1.43	0.153	
P/B	36.782249**	2.45	0.016	24.73687*	1.87	0.062	
ROE	.20978648	0.05	0.960	-1.6691754	-0.41	0.684	
DPS	13.49425***	2.70	0.008	12.563715***	2.62	0.009	
PNR	10.184058	0.77	0.444	9.4473488	0.80	0.426	
PBIT	.36703873	0.04	0.969	-3.4826548	-0.46	0.645	
Int.R	-151.96594***	-3.24	0.002	-145.8356***	-3.00	0.003	
GDP	92.45478*	1.81	0.074	107.59144**	2.01	0.044	
Inf.R	-58.337637***	-4.40	0.000	-56.38950***	-4.10	0.000	
F Statistics	12.43***			_	_		
Hausman Test	17.60)***					
(p-value)	(0.0	00)					
Wald x ²	_	_		129.62***			
R-sq: within	0.58	0.5801		0.5695			
R-sq: between	0.20	584		0.4228			
R-sq: overall	0.33	319		0.43	393		

Table 6: Results of Fixed Effect and Random Effect Regression

Note: *, **, *** denotes 10%, 5% and 1% level of significance.

Source: Authors' Own Compilation

It shows the estimate of fixed effect and random effect models of twenty-five firms over a period of five years. As Hausman test supports the model fixed effect, the analysis is done on the basis of that supported model. R² value of 0.5801 within the sector reveals that 58% of the fluctuations in share

prices in India is affected due to the variables that have been taken into consideration. The p value of F-test is significant at 1% level of significance. The table 6depicted that interest rate has an inverse relationship with the market price of shares at 1% level of significance. The inflation rate also has negative relationship like interest rate which is also significant at 1% level. However, the analysis reveals that the independent variables price to earnings ratio, earnings per share, price to book ratio, return on net worth, dividend per share, price to net profit ratio, profit before dividend interest & tax and gross domestic product have a positive relationship with share price. Some of the variables shows similar impact in the research study by Enow and Brijlal (2016) & Almumani (2014). Amongst them, earnings per share, gross domestic product, price to book ratio and dividend per share are significant at ten, five and one per cent level of significance. The coefficients (p-value) for EPS, PB, DPS, INT, INF, GDP were 3.169489 (0.059), 36.782249 (0.016), 13.49425 (0.008), -151.96594 (0.002), -4.40 (0.000), 92.45478 (0.074) respectively. The study suggests that earnings per share, gross domestic product, price to book rate are the most important factors affecting share prices. The upward movement of these variables will result increase in the market price of share and vice versa.

6. Results and Discussion

The findings of the study revealed both positive and significant relationship among EPS, PB, DPS, INT, INF and GDP suggested these factors are crucial determining factors in creating the market price of shares in India. Whereas, a significant negative impact was found between interest rate and inflation rate. So, it is suggested that when there is hike in interest rate, loans from bank will be costlier for firms and as a result, there might be reduction in profit which directly affects market price of shares. Again, negative impact of inflation indicates that when inflation rate remains high, it negatively affects the market price of share. Investors should take into consideration these aspects at the time of investment. It is recommended that potential investors should closely monitor the earnings per share, gross domestic product, price to book ratio and dividend per share prior to their investment and expansion of their portfolio. The study has also provided few recommendations to those listed firms in India to give attention on the significant variables involved in the study. It also recommends that investors should take into consideration of companies as it significantly affects the performance of market price of shares. This study may be used as a guide for the small investors in India to provide attention on the above-mentioned factors discussed in detail while taking decision in capital market investment.

7. Conclusion

The study attempted to analyse the factors that affect stock prices that are listed in NSE. For the purpose of the study, panel data of twenty-five companies over a period of five years yielding a total of 125 observations have been retrieved from Yahoo finance and money control website as well and analysed the factors that influence the market price of shares listed on the National Stock Exchange of India (NSE). Fixed effect and random effect models are used to estimate the data. The study attempted to analyse the relationship between market price of shares and some select fundamental variables of a

company. The findings reveal a positive significant relationship between earnings per share, gross domestic product, price to book ratio, dividend per share, interest rate and inflation rate that are active determinants share prices. However, a negative relationship was found between interest and inflation rate which was statistically significant. The result may be generalised as it has included major industries and companies of high market capitalisation which are listed in NSE.

Small investors in India may consider the variables for making investment in shares. As the study considers only ten variables but there are other variables exists in the market that might affect share prices been ignored. Also, the period of the study is limited to five years only on twenty-five number of companies. Any generalisation can't be done based on the number of units. Again, the data which has been collected from various websites, the validity and reliability will depend upon the websites that publishes those data. This gives an area for further research to consider more variables and more companies with a long time series data.

References

- Adebiyi, A. A., & Adewumi, O. A. (2017). Stock Price Prediction Using the ARIMA Model. UKSim-AMSS 16th International Conference on Computer Modelling and Simulation, Vol-7, 105-111
- Alam, S., Miah, M., & Karim, M. (2016). Analysis on Factors that Affect Stock Prices: A Study on Listed Cement Companies at Dhaka Stock Exchange. Research Journal of Finance and Accounting, 7(18), 93-105.
- Almumani, M. A. (2014). Determinants of Equity Share Prices of the Listed Banks in Amman Stock Exchange: Quantitative Approach. International Journal of Business and Social Science, 5(1), 91-104.
- Arkan, T. (2016). The Importance of Financial Ratios in Predicting Stock Price Trends: A Case Study in Emerging Markets. *Finanse*, Rynki Finansowe, Ubezpieczenia, 79(01), 13-26.
- Arshad, Z., Arshaad, A. R., Yousaf, S., & Jamil, S. (2015). Determinants of Share Price of Listed Commercial Banks in Pakistan. *IOSR Journal of Economics and Finance (IOSR-JEF), 6*(2), 56-64.
- Baltagi, B. H., (2008). Econometric Analysis of panel data (4th Edition), John Wile and Sons.
- Baltagi, B. H., & Jung, B. C. (2010). Testing for Heteroskedasticity and Serial Correlation in a random effects panel data model. *Journal of Economics.* 154(2)
- Enow, S. T., & Brijlal, P. (2016). Determinants of Share Prices: The Case of Listed Firms on Johannseburg Stock Exchange. *Journal of Accounting and Management*, 6(1), 85-92
- Gujarati, D. N., & Porter, D.C. (2009). Basic Econometrics (5^{Tb} Edition), McGraw-Hill
- Irfan, C. M., & Nishat, M. (2002). Key Fundamental Factors and Long-run Price Changes in an Emerging Market: A Case Study of Karachi Stock Exchange (KSE). *The Pakistan Development Review*, 4(II), 517-533.
- Kevin, S. (2012). Security Analysis and Protfolio Management. PHI Learninh Pvt Ltd.
- Malhotra, N. (2013). Determinants of Stock Prices: Empirical Evidence from NSE 100 Companies. International Journal of Research in Management & Technology, 86-95.
- Oyama, T. (1997). Determinants of Stock Prices: The Case of Zimbabwe. *International Monetary Fund.* 97(117), 1-45.
- Sharif, T., Purohit, H., & Pillai, R. (2015). Analysis of Factors Affecting Share Prices: The Case of Bahrain Stock Exchange. *International Journal of Economics and Finance*, Vol-7 207-216.

Sharma, S. (2011). Determinants of Equity Share Prices in India. Journal of Arts, Science and Commerce, 51-60.

Sharma, S. (2011). Determinants of Equity Share Prices in India. Journal of Arts, Science & Commerce, II(4), 51-60.

Singh, D. (2017). Stock Price Determinants: Empirical Evidence from Muscat Securities Market, Oman. Ch-2, 21-28.

- Srinivasan, P. (2012). Determinants of Equity Share Prices in India: A Panel Data Approach. The Romanian Economic Journal, 3(II), 205-228.
- Zadeha, A. K., Zartab, S., Fatemi, F., & Radmanesh, R. (2013). Fundamentals and Stock Return in Pharmaceutical Companies: A Panel Data Model of Iranian Industry. *Iranian Journal of Pharmaceutical Sciences*, 9(1), 55-60.