IMPACT OF INFLATION (CONSUMER PRICE INDEX) ON BOMBAY STOCK EXCHANGE (BSE) HEALTHCARE INDEX

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ABSTRACT

Bombay stock exchange (BSE) is the major stock exchange of the country which further has different sectoral indices where healthcare is one of the major indexes. All the major pharmacy companies are listed on the healthcare index and any change in the index leads to the change in profit of healthcare companies. Inflation being one of the major macroeconomic variables may impact the healthcare index of BSE. The objective of the research paper is to find the impact of Inflation (Consumer Price Index) on BSE Healthcare Index. Very few studies have been done in this sector of BSE Healthcare Index and macroeconomic variable Inflation (CPI). The statistical tool used for deriving the results of the paper are linear regression and analysis of variance for finding the impact to Inflation on BSE Healthcare Index. It has been found that there is significant impact of Inflation CPI (Consumer price index) on the BSE Healthcare Index. The relationship is inverse as with the rise in inflation, there will be decrease in the BSE Healthcare Index. This research will help both pharmacy companies and investors to understand the volatility of healthcare index in relation with inflation. Inflation (CPI) has a negative impact on the Healthcare Index of Bombay Stock Exchange.

Keywords: Social Media, MAU, Telegram, WhatsApp, Orkut, Digital Technologies

I. INTRODUCTION

Bombay Stock Exchange is a major stock exchange of the country and its market capitalization has increased substantially in last three decades. Furthermore, sectoral indices were created under BSE and seeing the importance of healthcare and pharmacy companies, healthcare index was created. This index has the major pharmacy companies of the country and any change in the index leads to changes in the market capitalization of the companies. Macroeconomic variables are important parameter for Indian economy. Inflation is an important variable which may impact the stock market indices. With rising inflation and falling purchasing power of money investment volume may come down. The aim is to find out the relation between the Inflation (CPI) and the Healthcare Index of Bombay Stock Exchange. The consumer price index measurement is the real measurement of inflation as it is calculated on the basis of real prices paid by consumers. In either economy, inflation rate adjustments actively or implicitly affect stock-market returns. Low and steady inflation is a primary priority of economic policy. Stock market-inflation relationship study is very relevant and essential for markets and policymakers.

II. REVIEW OF LITERATURE

Chowdhury et. al. (2006) studied that the relationship between the stock market returns and the variables of the economy has no evidence. The variables of economy taken for study were exchange rate, industrial production and inflation in Bangladesh. The research concluded that the IIP granger causes changes in the Stock price fluctuations Granger triggers inflation. Bursaries and exchange rates have no connection.

Patel (2012) studied the relation between the Indian share market and economic factors like inflation, industrial development index, gold price, oil price, interest rate, currency availability, and silver price. Both BSE and NSE were considered. Monthly data were gathered for the January 1991-December 2011 review of granger causality test and regression analysis. Results validated long-term association between market markets and macroeconomic indicators. Causality test shows that exchange rates caused stock market indexes.

Venkatraja (2014) studied Relation Indian stock market performance (BSE Sensex) and macroeconomic variables for April 2010-June 2014 utilizing monthly statistics, i.e. industrial output index, wholesale price index, gold price, foreign direct investment and real live interest rate. Therefore, different regression
approaches operate. Consequently, inflation, the inflow of foreign money, exchange rates and gold prices severely impact Indian stock exchange output 7.

Material and Methods
This research is centered on secondary inflation data (Consumer Price Index) and the Healthcare Index data of Bombay Stock Exchange. The records have been composed from different websites and published sources of government data.

The data for Healthcare Index (BSE) has been taken from April 2016 to October 2019. The closing index of the last day of every month has been taken into account. For inflation, the consumer price index of the same period is taken. A linear regression analysis is done through SPSS software to know the impact of inflation on healthcare index Bombay Stock Exchange.

Null Hypothesis: There is no significant effect of Inflation on Healthcare Index of BSE.

Alternate Hypothesis: There is significant impact of Inflation on Healthcare Index of BSE.

Results and Discussion

TABLE OF REGRESSION ANALYSIS

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CPI</td>
<td>Enter</td>
</tr>
</tbody>
</table>

Source: SPSS Output

TABLE: 2
VALUE OF CORRELATION AND REGRESSION

<table>
<thead>
<tr>
<th>Model</th>
<th>Value of R</th>
<th>Value of R Square</th>
<th>Value of Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>.679</td>
<td>.461</td>
<td>.448</td>
<td>382.588</td>
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</table>

TABLE: 3
ANALYSIS OF VARIANCE

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<tr>
<th>Model</th>
<th>‘Sum of Squares’</th>
<th>‘Mean Square’</th>
<th>F</th>
<th>Sig.</th>
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</thead>
<tbody>
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<td>1</td>
<td>Regression</td>
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<td>2.147E7</td>
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</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2.511E7</td>
<td>612.443</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4.658E7</td>
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<td></td>
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### TABLE: 4
REGRESSION EQUATION VARIABLES COEFFICIENTS

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>31513.748</td>
<td>2893.147</td>
<td>-.679</td>
<td>10.893</td>
</tr>
<tr>
<td>CPI</td>
<td>-127.353</td>
<td>21.509</td>
<td>-.679</td>
<td>-5.921</td>
</tr>
</tbody>
</table>

Table 1: It represents two variables where BSEHEALTH (BSE Healthcare Index) is independent variable and CPI (Inflation: Consumer Price Index) is dependent variable.

**BSEHEALTH**: BSE Healthcare Index in BSE CPI: Consumer Price Index of Inflation

Table 2: The value of R which is .679 represents that consumer price index (CPI Inflation) has 67.9% impact on the BSE Healthcare Index. The relation is hugely significant which leads to the negative of null hypothesis and approval of alternate Hypothesis. Thereby, Inflation (CPI) has significant impact on the BSE Healthcare index.

R-Square is known to The amount of dependent variable change (CPI: inflation) anticipated from independent variable (BSE Healthcare Index). The R square rate of.461 states that 46.1 percent of the healthcare index deviation may be expected from the CPI inflation variable. R-Square has been the decision coefficient. The modified R-square seeks to yield a more truthful value to community R-squared estimation. R-square rate is.461, but Modified R-square value is.448.

Table 3: This represents analysis of variance which is demarcated Adjustment to be defined by independent variables (Regression) & modification not identified by independent variables (Residual, also called Error).

Using these principles to address the query “Do the independent variables reliably predict the dependent variable?” as the table present, the significant value is not as much of than 0.05 which implies “Yes, the independent variables reliably predict the dependent variable”.

Table 4: This table represents the regression equation. Here, the coefficients represents that consumer price index has direct impact on the healthcare index inversely. That is, an increase in the inflation will lead to the downfall of health care index. The equation will be:

Healthcare Index = 31513.748 – 127.353 CPI

### III. CONCLUSION

It is observed from the analysis that Consumer Price Index has direct impact on the Index of Healthcare in Bombay Stock Exchange. A rise in inflation will lead to the downfall of the Healthcare Index proportionately. With inflation being one the most important macroeconomic variable and Healthcare Index being one of the major indices of BSE, this relationship will help investors to understand when is the right time to invest in this sector seeing the inflation rates. When the inflation rates are high, the market will go down, and when the inflation rates are low, the markets will go up. There is no conflict of interest as the research is its exploratory phase.

No source of fund is required in the current research. As secondary data has been used for the research, available on public domain therefore ethical clearance is not required. However, reference required for the data has been mentioned in the study.
REFERENCES

5. Chowdhury, SS, Mollik, AT & Akhter, MS 2006, Does predicted macroeconomic volatility influence stock market volatility? evidence from the Bangladesh capital market, Working Paper, Department of Finance and Banking, University of Rajshahi, Bangladesh.