A STUDY ON IMPACT OF NEWS ON INVESTOR’S DECISION DURING COVID 19

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ABSTRACT

Purpose - This paper aims to map the general patterns of impact of business news on investors’ decision during Covid 19. The impact of Covid 19 on individuals, societies, and organizations is speedily growing. While the impact of Covid 19 on the investment management industry is not as high a priority as protecting people’s strength and well-being, it is still significant for investment professionals to study from these challenges. Over time, when people pay attention to their investments, they are likely to expect that their investment professionals were working thoroughly to safeguard their portfolios during these turbulent times.

The Covid 19 pandemic and the global response to it is a serious threat not only to global health, but also to our communities, our economies, and our investments. As long-term factors of capital, investors can and should act now to help reduce dangerous impacts, including: the direct result on public health, the harshness of the associated economic go-slow, deepening inequality in societies, and the resultant impacts of all of the above on mental health.

Design/methodology/approach - The research papers are analyzed on the basis of searching the keywords related to the topic on various published journals, working papers and some other published books. These papers are collected over a period of year’s right from the time when the most introductory paper was published (1993) that contributed this area a basic foundation till the most recent papers (2020).

Findings - From the above two tests and above research, we can conclude here that we fails to reject null hypothesis, in both the tests. It means that we have to accept the null hypothesis. Null hypothesis is that the pre and during Covid investment is similar. Investors are investing same amount of money as they invested before Covid 19. Overall we can say that impact of news on investors’ decision due to Covid 19 is equal.

Originality/value - In this research we have applied descriptive research design. We used primary data to collect the data through Questionnaire. To conduct hypothesis testing we put statistical tools like Paired T-test & Chi-square test to analyze the data effectively.

Keywords - Covid 19, Sentiment analysis, News impact, Investor’s decision.
1. **INTRODUCTION**

On March 11, 2020 the World Health Organization (WHO) officially declared the coronavirus (COVID-19) outbreak as a global pandemic. As of March 27, 2020, the number of confirmed cases exceeded 500,000 and continues to rise (TOI, 2020). The pandemic can trigger a number of channels, including, for example, labor markets, global supply chains, consumer behaviors, which can affect the global economy.

There are several types of news published and the impact of the news that changes the investor's decision at the time of investment. The impact can be positive or negative depending on the news. The spread of Covid-19 is the main concern at the moment, as investors are more concerned about the economic impact of the lockdown. The market responds very well to the news about the coronavirus. It's no secret that the stock market can move rapidly up or down with news of coronavirus treatments or vaccine candidates. Consider a few recent news items.

- On May 18, Moderna (NASDAQ:MRNA) released interim data from a phase 1 trial of its coronavirus vaccine candidate that showed all 45 participants produced antibodies. The S&P 500 rallied by more than 3% its best day in more than a month. (ET, 2020)
- On April 29, Gilead Sciences announced results from its phase 3 trial of its antiviral Remdesivir that showed the drug was not only effective in treating severe cases of COVID-19, but that a 5-day treatment course was just as effective as a 10-day course, which implies that the supply of the drug could be used to eat more patients. The S&P 500 rise by 2.7% that day. (ET, 2020)
- As new data becomes available, the perspective changes; For example, positive news about the SARS-CoV-2 vaccine from a biotech company offers hope that the country and the world can get back to normal sooner, so investors expect stronger corporate earnings in the near term and stock prices go up. (ET, 2020)

This brings us to an important concept that all investors should be aware of. The stock market is a future indicator of the economy.

My guess is that the stock market is largely driven by these sentiment cycles which are primarily (but not exclusively) caused by the news. This news can be financial news or even from the geopolitical front. Inextricably, the relationship between what we (as human beings) see through the media plays a very important role in our feelings. Good news would tend to lift the market, while, on the other hand, bad news would tend to slow market growth. However, this news effect is not symmetrical. Good news may not lift the market as much as bad news will.

2. **OBJECTIVES**

- To study the impact of news on investors’ decision during Covid 19.
- To study the reaction of investors during pandemic situation.
- To study how the concept of time value of money is used by the investors.
- To study the impact of positive and negative news on investors’ decision.
3. LITERATURE REVIEW

(Jareno, 2013) This study is focused on reviewing macroeconomic news impact on one hand common stock returns and on the other hand shows how financial markets reflect quickly the arrival of new information.

(Souček & Wasserek, 2014) Examined the impact of the analysts' recommendation on Performance of the DAX 30 stock (German stock exchange). They filtered 12,998 observations with 1,446 analysts, who worked for 126 different brokerage firms from January 2000 to September 2012. They found the highest price reaction on the day of the recommendation. The impact of positive recommendations was observed for up to six months, while the impact of Negative recommendations were observed for up to four months.

(RIM Marine, 2016) Investigated whether the geographic proximity of information released from the 2014 Ebola outbreak, coupled with extensive media coverage, had affected US asset prices. The results show that the effect on stock prices is generally negative, while local media reports also have a significant impact on local trade, and the effect is more pronounced in smaller, more volatile stocks and less stable industries.

(Joshi & Pradhan, 2018) In this paper, the impact on investors’ decision is measured in terms of price reaction due to earning specific News. To verify the impact of the news, if any, the reactions of the volume were examined. The result indicates that there is a news impact. Second, AAR and CAAR have been tested and it was concluded that informed investors can achieve abnormally high returns. Finally, it was concluded that there is no significant difference between the AAR of positive earnings news and negative earnings news using Wordstat software.

(Breitmayer, 2019) Understanding how this relationship works is critical for a number of reasons. First, the buy and sell decisions that individual investors make now depend more on the news content available. Second, the gradual emergence of social media investment platforms that now use the wisdom of the masses (or the wisdom of the masses) and shared information to help users make better decisions.

(Mondal, 2020) Rigorously analyzed the death throes of the deadly pandemic on the Indian stock market. The results reveal that BSE Sensex witnessed the biggest drop in a single day of 13.2%, which topped the infamous drop of April 28, 1992. Nifty also has a steep 29% drop, beating the disaster of 1992.

(Rakshit & Basistha, 2020) As people reduced their consumption to only necessary products, only the FMCG Company showed a positive performance, while other companies are facing a sharp decline.

(Cepoi, 2020) An empirical study conducted on the relationship between the news related to COVID-19 and the stock market performance of the most affected countries. Using a quantile panel regression, this study found that the stock market exhibits an asymmetric dependence on COVID-19 information.

4. RESEARCH METHODOLOGY

Research Design
In this research we have applied descriptive research design because the motto of the research is to find the impact of news on Investor’s decision.

Sources of Data
For this study primary data has been collected from respondents and the Business related news i.e. secondary data was collected from moneycontrol.com and Share khan.
Data Collection Method
For this research we used Primary as well as Secondary data method for data collection.

Population
In this research we have assumed total population within Vadodara and from Parul University campus.

Sample
For this research the sample size is 250, which includes respondents who invest mainly in stock market and commodity / derivatives market.

Data Collection Instrument
In instruments we used Questionnaires for primary data and for secondary data we refer Journals, Articles, Research papers, etc. to retrieve the data.

5. SUMMARY OF DATA COLLECTION

<table>
<thead>
<tr>
<th>Gender</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>142</td>
</tr>
<tr>
<td>Female</td>
<td>108</td>
</tr>
<tr>
<td>Grand Total</td>
<td>250</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>64</td>
</tr>
<tr>
<td>30-40</td>
<td>100</td>
</tr>
<tr>
<td>40-50</td>
<td>52</td>
</tr>
<tr>
<td>Above 50</td>
<td>34</td>
</tr>
<tr>
<td>Grand Total</td>
<td>250</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>74</td>
</tr>
<tr>
<td>Employee</td>
<td>121</td>
</tr>
<tr>
<td>Household</td>
<td>16</td>
</tr>
<tr>
<td>Student</td>
<td>39</td>
</tr>
<tr>
<td>Grand Total</td>
<td>250</td>
</tr>
</tbody>
</table>
6. **DATA ANALYSIS**

Following are the response of respondent on important question related to topic.

<table>
<thead>
<tr>
<th>Income</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Rs. 20,000</td>
<td>67</td>
</tr>
<tr>
<td>Rs. 20,000 - Rs. 40,000</td>
<td>97</td>
</tr>
<tr>
<td>Rs. 40,000 - Rs. 60,000</td>
<td>53</td>
</tr>
<tr>
<td>More than Rs. 60,000</td>
<td>33</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

Before covid 19, what percentage of your total income did you invest?

- 0 - 15%: 46%
- 15 - 30%: 34%
- More than 30%: 20%

During covid 19, what percentage of your total income do you invest now?

- 0 - 15%: 53%
- 15 - 30%: 26%
- 30 - 50%: 21%

During covid 19, Which is the most important factor that affects your investment decisions?

- Diversification: 32%
- Progressive values: 20%
- Return: 20%
- Safety of principal: 28%

What do you think that impact of news on investors’ decision due to covid 19 is __________.

- Positive: 33%
- Negative: 67%
Where do you invest your money?

- Commodity: 35 (14%)
- Real Estate: 57 (23%)
- Bonds: 28 (11%)
- Share Market: 96 (38%)
- Mutual Funds: 21 (8%)
- Gold & Silver: 57 (23%)
- Precious Stone: 42 (17%)
- Diamonds: 29 (12%)
- Fixed Deposits: 82 (33%)
- Recurring Deposits: 36 (14%)
- Exchange - Traded Funds: 31 (12%)
- Retirement Plans: 48 (19%)
- Annuities: 25 (10%)
- Certificates of Deposit: 18 (7%)
- Cryptocurrencies: 20 (8%)
- Other: 0 (0%)

Is there any impact of Business News on your Investment decision?

- Yes: 80%
- No: 20%

Do you think that covid 19 pandemic, affect a person’s investment decision?

- Yes: 23%
- No: 77%

During covid 19, In which sector/s do you prefer to invest your money?

- Pharmaceutical: 27 (11%)
- International Mutual Funds: 35 (14%)
- Smart Deposit: 34 (14%)
- Dynamic Asset Allocation Funds: 42 (17%)
- Information Technology (IT): 35 (14%)
- Housing Finance Companies/NBFC: 43 (17%)
- Auto - 4 Wheeler: 49 (20%)
- Infrastructure: 59 (24%)
- FMCG: 56 (22%)
- Logistics: 40 (16%)
- Foreign Banks: 60 (24%)
- Other: 81 (32%)
7. **HYPOTHESIS TESTING**

For the research we have conducted two tests.

(I) T test and  
(II) Chi-square test

**(I) T test**

A T-test is a type of inferential statistics that is used to determine if there is a significant difference between the means of two groups, which can be correlated for certain characteristics. The t-test is one of many tests used for the purpose of testing hypotheses in statistics. Compare the P-value with the alpha significance level above. If it is less than alpha, reject the null hypothesis. If the result is greater than alpha, do not reject the null hypothesis. If you reject the null hypothesis, this indicates that your alternative hypothesis is correct and that the data is significant.

**Assumption:**

For Calculation of t test, we have taken average of options, based on Law of Average.

- **H0:** The average investment before and during Covid are equal.
- **H1:** The average investment before and during Covid are not equal.

<table>
<thead>
<tr>
<th>Table 1 Calculation of Paired T test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paired t-test</strong></td>
</tr>
<tr>
<td>Alpha</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Variance</td>
</tr>
<tr>
<td>Observations</td>
</tr>
<tr>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Observed Mean Difference</td>
</tr>
<tr>
<td>Variance of the Differences</td>
</tr>
<tr>
<td>df</td>
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<tr>
<td>t Stat</td>
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<tr>
<td>P (T&lt;=t) one-tail</td>
</tr>
<tr>
<td>t Critical one-tail</td>
</tr>
<tr>
<td>P (T&lt;=t) two-tail</td>
</tr>
<tr>
<td>t Critical two-tail</td>
</tr>
</tbody>
</table>

**Conclusion:**

Here p value for one tail test is 0.17 and for two tail test is 0.34. Here, alpha is 0.05. Both the values are greater than 0.05. Since p value > 0.05. Hence, we fail to reject H0. So, the conclusion is the average investment before and during Covid are equal.
The Chi-square test aims to verify the probability that an observed distribution is due to chance. It is also known as the "goodness of fit" statistic because it measures how well the observed distribution of the data fits the expected distribution if the variables are independent. The chi-square statistic is determined by the level of significance.

**H0:** Pre & during Covid 19 investment is similar.

**H1:** Pre & during Covid 19 investment is decreased.

**Table 2 Calculation of observed data**

<table>
<thead>
<tr>
<th>Observed (fo)</th>
<th>Before Covid 19</th>
<th>During Covid 19</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15%</td>
<td>115</td>
<td>132</td>
<td>247</td>
</tr>
<tr>
<td>15-30%</td>
<td>84</td>
<td>65</td>
<td>149</td>
</tr>
<tr>
<td>30-50%</td>
<td>51</td>
<td>53</td>
<td>104</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>250</td>
<td>500</td>
</tr>
</tbody>
</table>

**Table 3 Calculation of Expected data**

<table>
<thead>
<tr>
<th>Expected (fe)</th>
<th>Before Covid 19</th>
<th>During Covid 19</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15%</td>
<td>123.5</td>
<td>123.5</td>
<td>247</td>
</tr>
<tr>
<td>15-30%</td>
<td>74.5</td>
<td>74.5</td>
<td>149</td>
</tr>
<tr>
<td>30-50%</td>
<td>52</td>
<td>52</td>
<td>104</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>250</td>
<td>500</td>
</tr>
</tbody>
</table>

**Table 4 Calculation of Observed & Expected data**

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Before Covid 19</th>
<th>During Covid 19</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15%</td>
<td>0.5850202</td>
<td>0.5850202</td>
<td>1.1700405</td>
</tr>
<tr>
<td>15-30%</td>
<td>1.2114094</td>
<td>1.2114094</td>
<td>2.4228188</td>
</tr>
<tr>
<td>30-50%</td>
<td>0.0192308</td>
<td>0.0192308</td>
<td>0.0384615</td>
</tr>
<tr>
<td>Total</td>
<td>3.6313208</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 5 Cal. of Df, CV, P-value**

<table>
<thead>
<tr>
<th>Df = (r-1)(c-1)</th>
<th>CV →</th>
<th>5.991464547</th>
</tr>
</thead>
<tbody>
<tr>
<td>Df = 2</td>
<td>P-value →</td>
<td>0.162730404</td>
</tr>
</tbody>
</table>

**Conclusion:**

Here Chi-Square value < Critical Value. Hence, we fail to reject H0. OR p value is 0.162730404 & alpha is 0.05. Since p value > 0.05. Hence, we fail to reject H0. So, the conclusion is that Pre & during Covid 19 investment is similar/equal.
8. FINDINGS

- Out of 250 people 142 are male and 108 are female. That’s mean the male have more knowledge about investments & only working ladies having the knowledge about investments.
- Most of the respondents who age under 30-40 are doing investments.
- Most of the respondents are employee & business man.
- Based on analysis we find that 80% investors think that there is an impact of news on investment decision.
- The analysis shows that 70% peoples are change their decision according to the news and 30% isn’t.
- Out of 250 responses 81% people investing their money in various investment avenues.
- Most of the investor invest their money in Share market, Fixed deposits and Gold & Silver.
- We found that majority of the investors take their decision based on Internet, New channels & Certified market professional.
- Due to Covid 19 pandemic 77% investors think that it affect their personal investment decision.
- Before Covid 19, 46% investors invest their income in 0-15% category, while 15-30% and more than 30% were 34%, 20%.
- Due to Covid 19 68% investors change their investment pattern.
- In Covid 19, 53% investors invest their income in 0-15% category, while 15-30% and 30-50% were 26%, 21% respectively.
- Most of the investors incurred loss in stock market due to news during Covid 19.
- Most of the investors invest their money into Pharmaceutical, FMCG & IT sectors.
- Most of the people think that there is negative impact of news on investment decision due to Covid 19.
- By applying statistical tools, we found that both the test are fail to reject null hypothesis. So, we have to accept that before and during Covid 19 investment is similar. All-around we can say that impact of news on investors’ decision due to Covid 19 is equal.

9. PROBLEM STATEMENT

Our Comprehensive Project Topic is “A STUDY ON IMPACT OF NEWS ON INVESTOR’S DECISION DURING COVID 19.” This is major problem of the study.

Following are the minor problems of the study.

- Financial crunch in academia.
- Poor study design in published papers.
- Lack of replication studies.
10. LIMITATIONS

- Data was collected only from Vadodara and Parul University campus, result represents only small part of population.
- There was limitation of time.
- In future further research should be done with more varied samples and in detail with more geographically spread.
- As the data is collected through the questionnaire on online mode there may be possibility of they may not fully loyal in answering the questions.

11. CONCLUSION

From the above two tests and above research, we can conclude here that we fails to reject null hypothesis, in both the tests. It means that we have to accept the null hypothesis. Null hypothesis is that the pre and during Covid investment is similar. Investors are investing same amount of money as they invested before Covid 19. From the questionnaire’s question we can also conclude that people are more planning towards investment. People are invest in stock market and also other things like fixed deposits, Mutual funds, Gold and silver, Precious stone, Diamonds, Recurring deposits, etc. During Covid 19, investors invest their money into different sectors like Pharmaceutical, International Mutual funds, Smart deposit, Information Technology, Auto 4 wheeler, Infrastructure, FMCG, Logistics, Foreign banks, etc. In this Covid situation investors prefer safety of principal is a most important factor which affects their investment decision. Overall we can say that impact of news on investors’ decision due to Covid 19 is equal.

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