

## “Impact of Demonetisation on the Equity Share Prices of Chemical, Pharmecercutical and Cement Industry”

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**ABSTRACT:** The eve of 8th November 2016 marked a major change in the lives of every citizen of India. The Government banned the 500- and 1000-rupee notes of the country which had a major impact on every nook and corner of the country. This bold decision taken by the government was appreciated and welcomed by some, while it was criticized and condemned by others. The major motive behind this move was to eradicate the black money circulating in the economy. This was considered as one of masterstrokes of the government in the recent times. There were enormous difficulties faced by people. This is the period where the country witnessed “cashless India” as the payment applications like Paytm emerged as a leader. The major focus of this research is to analyses the effect of demonetisation on the equity share prices of various industries. 3 industries have been analyzed for the purpose of the research. The effect of demonetisation on the cement industry, chemical industry and pharmaceutical industry for a period of 6 months prior to demonetisation and 6 months after demonetisation have been analyzed in the research.

**KEYWORDS:** Governement, Black Money, Economy, Paytm, Demonetisation

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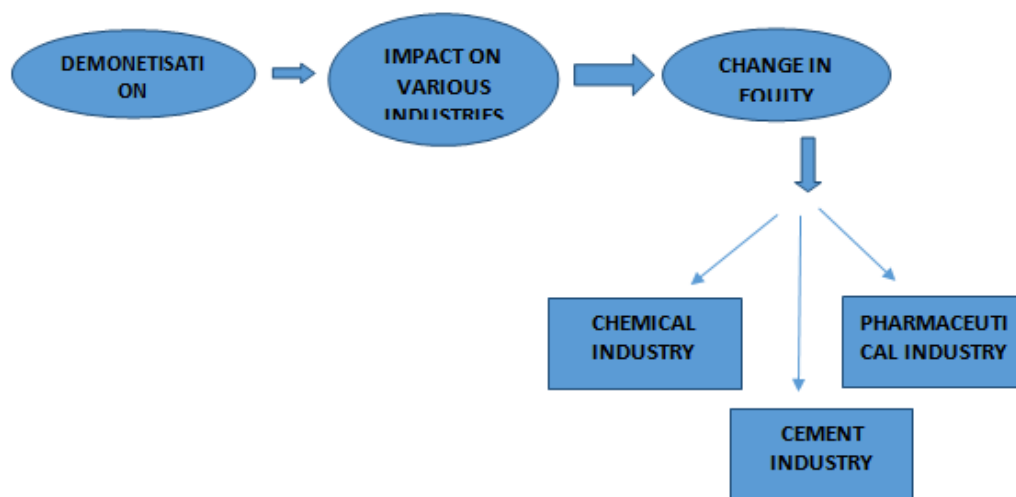
### I. INTRODUCTION

Demonetization in India popularly known as ‘Notebandhi,’ was a multipurpose move by the Modi Government.:

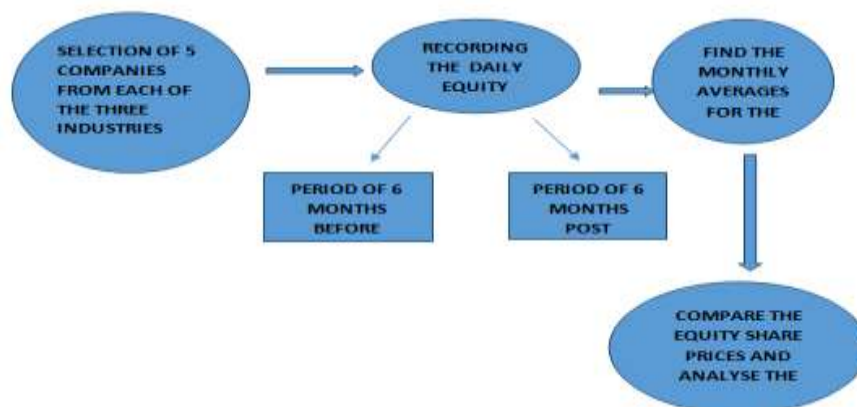
- To curtail Black Money
- To reduce production of fake currency
- Have an improved GDP in the long run
- To promote cashless/Digital Transactions

With the two most commonly used cash currency becoming obsolete, India’s GDP growth rate fell by 6.1 percent which was to a 4-quarter low. Demonetization did have an impact on all Industries be it Financial Services, Real Estate, Pharma or IT. In this paper we attempt to study the impact of Demonetization with respect to certain parameters in three major industries – Pharmacy, Cement and Chemical.

### Theoretical Framework



### Conceptual Framework



## II. REVIEW OF LITERATURE

1. As per the Deutsche Bank Markets Research report, after the currency demonetisation a drop around 15-20 % in the demand for cement is expected and only by end of financial year 2020 it is expected to take the upward turn. A gradual reduction in the mortgage rates could help the cause of creating demand. The demand shall fall more steeply in the eastern India than the central or northern India.
2. According to The Hindu Business Line, it is believed that most of the existing cement companies perform as net working capital negative. The original working capital cycle for such cement companies showed likely signs to increase because of the additional credit generated to the dealers since most of them chose to shift to digital payments post demonetisation. Sectors like cement and steel have a tendency to turn credit negative.
3. As per Amit Mookim, GM, South Asia, Quintiles MS, demonetisation will provide documented transactions and more control on the drug department at all levels on every purchase and sales. This shall be followed by cheaper medicines and a proper process of billing and invoicing in the pharmaceutical market.
4. As per the government of India, though the initial demonetisation phase has brought a few hurdles for the pharmaceutical industry, the government of India still believes that it is on track to achieve its target of 55 million US \$ under the Pharma Vision 2020 with an expectation of a rise by about 12% in the coming years.
5. According to the Innovexia, a 6%-8% fall was experienced in stock exchange market of pharmaceutical companies. The third party who was manufacturing the pharma business met with a big blow due to the failure to meet the cash transactions. This ultimately led to low pharma production.
6. The Health Biotech Limited in its article depicts that the Pharmaceutical industry can survive almost any economic conditions in the market as far as the humans would be needing medical aid. Demonetisation has had a short- term effect on this industry but in the long term, a certain amount of steady growth is expected over the coming years.

## III. RESEARCH DESIGN

### Statement of problem:

The concept of demonetisation was introduced in November 2016. The Prime minister completely removed the 500 and 1000 note. Though this drastic step was introduced with the intention of removing the black money and increasing the usage of online transactions to improve the condition of the economy, it had a negative impact on various sectors of the economy. This is because as soon as it was announced, liquidity was completely wiped out. In this research the aim is to analyze whether demonetisation had an impact on share prices. As of today, a source of income for many households, business houses and corporates is the returns they receive from trading in the stock market. We aim at firstly analyzing whether the particular industry chosen was affected by demonetisation. Secondly, for the purpose of conducting this research, 5 companies have been selected from each industry. Each company has been selected based on their market capitalization, ranging from a high share to a low share. Therefore, the research focuses on the question as to whether share prices of companies with higher market capitalization had a greater impact.

### Sources of data:

A source of data is considered a primary source of data if it is obtained from first-hand accounts or it has been obtained directly from people that have a connection with it. In this research, since the period of study

has already passed, obtaining data from primary sources will not be feasible. Secondary sources of data are those sources of data that do not have a direct connection with the data provider but are reliable sources of data. In this research paper, the data that is analyzed is share prices. This data has been obtained from Yahoo Finance. Yahoo finance is a website that publishes stock market updates, share prices, mortgage rates and international market data from reliable sources.

### **Hypothesis:**

Null hypothesis: The share prices of the selected company is not affected by Demonetisation.

Alternate hypothesis: The share price of the selected company is affected by demonetisation.

To conclude whether the share prices were affected, Chi Square test is performed. Each month before and after demonetisation are assigned weights (Independent variable) and the average share price of each month is computed (Dependent variable). The significance value that is obtained is then compared to 0.05 and either the null hypothesis or the alternate hypothesis is accepted.

### **Data analysis tools:**

The main data that has been analyzed are the share prices of the various companies selected.

- **Simple average:** The daily shares prices six months before and six months after demonetisation have been obtained from secondary sources. Due to daily fluctuations in the share prices, the simple average tool was used for each month. To arrive at the simple average, the cumulative sum of the daily share prices is divided by the number of trading days of that month.
- **Weights:** Each month prior and post demonetisation was assigned weights. The months prior to demonetisation were assigned negative weights and the months post demonetisation were assigned positive weights. Since the analysis is conducted for a period of six months, both six months prior and six months post demonetisation have been assigned the highest weights, i.e -6/+6.
- **Chi Square test:** The Chi Square test was performed to determine whether there was a dependency of share prices on the announcement of demonetization.

### **Limitations:**

- There are many statistical tools that can be applied to analyze quantitative data and each method will provide different outcomes. Chi Square test has been applied in this research and the interpretation is only based on the results of this test.
- Since the share prices are calculated on a monthly basis, simple average method has been used. Accommodating inter-day price fluctuations in share prices was not feasible.
- The assumption that is made before the analysis and interpretation of the data is that price fluctuation was due to demonetisation. Other variables such as market conditions, in-house business decisions etc. are not considered.

## **IV. ANALYSIS AND FINDINGS**

### **Chemical Industry**

Chemical Industry Companies	Share Price Dependency on Demonetization
India Glycols ltd	Dependent
Avon Lifesciences ltd	Independent
Tata Chemicals Ltd.	Dependent
Pidilite Industries	Independent
Kilburn Chemicals Ltd	Dependent

### **Pharmaceutical Industry**

Pharmaceutical Industry Companies	Share Price Dependency on Demonetization
Dr. Reddy's	Dependent
Granules India Ltd	Independent
Sun Pharmaceutical Industries Ltd	Dependent
Sharon Bio-Medicine Ltd.	Dependent
Parabolic Drug Ltd	Dependent

## Cement Industry

Cement Industry Companies	Share Price Dependency on Demonetization
UltraTech Cement Limited	Dependent
Shree Cement Limited	Dependent
Ambuja Cement Limited	Independent
Niraj Cement Structurals Limited	Dependent
Deccan Cements Ltd.	Dependent

The monthly averages for each month were calculated and Chi Square test was conducted. The data was gathered for a period of six months prior and six months post demonetization. The result of the Chi square test (Significance Value) allowed us to conclude whether the null hypothesis or alternate hypothesis was to be accepted.

## V. CONCLUSION

The conclusion for the Cement industry is as follows:

- Overall, demonetisation has affected the share prices. This can be observed from the fact that in the case of majority of the industries considered, the null hypothesis was rejected. This implies that the share prices were affected.
- Since the companies selected range from high end to low end in terms of market position and market capitalization of the companies, we can conclude that demonetisation had an industry specific impact on the cement industry.

The conclusion for Chemical industry is as follows:

- There is no definite conclusion that can be drawn on the industrial impact of demonetisation on the share prices. This is because, each company's share price had a varied impact post demonetisation
- Overall, Demonetisation was more company specific rather than industry specific in the case of the chemical industry.

The conclusion for Pharmaceutical industry is as follows:

- Overall, 4 out of the 5 companies selected were affected by demonetisation. This implies that there was a fluctuation in share prices that was caused due to demonetisation.
- Demonetisation caused an industry specific impact as opposed to a company specific impact.

Overall, fluctuations in share prices were not independent of demonetisation. There is a correlation between both the parameters. The degree of correlation varies, but it does exist. The correlation is independent of the industry and size of the company.

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