

## A study on share price movements of selected Indian cement companies

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**Abstract:** *The Indian cement industry is the second largest market after china. It had a total cement production capacity of about 455 million tonnes as a November 2018. Investment is the purchase of financial product or other item of value with an expectations favourable future returns. Investment alternatives fall into two broad categories such as financial instrument financial form of investment and non-financial form of investment. The major financial assets are equity shares, corporate debentures, government securities and deposits with banks, mutual fund, shares, insurance policies and derivative instruments. A number of factors of risk or investment characteristics may be considered in choosing among categories on investments or individual investments which include financial risk. Market risk, Interest rate risk to values of existing investments, interest risk to income from investments and purchasing power risk to get a high rate of return.*

*Stock price change every day by market forces. The fluctuation or changes in the share prices occurs due to the supply and demand. The purpose of this study is to attain the objective of average share price and forecast the movement of changes in the share price of selected 4 companies listed in National stock exchange for a period of 5 years from financial year 2013-14 to 2017-18.*

**Key Words:** *Capacity, Equity, Pricing, Prices, Demand and Supply, Investment.*

### 1. INTRODUCTION:

Investment is the sacrifice of current rupees for future rupees which involves two different attributes such as time and risk. Shares and stocks are one of the best investments an investor can make -if he picks the right ones. It is crucial to make the right choice. However, there is no specific rule for the selection of right shares. It could be noted that the time tested rules of investing would enable the investor to make his investment a profitable one. India is a “bottom-up” stock market and that has not thing to do with the habits of Indian investors. It means that day traders and fund managers focus on specific stocks; not on sectors or macro-economic variables. The investment in share market was considered as a source of income for only a few investors in the early days. After the implementation of economic reforms, the level of awareness of retail investors over the investment in share market has gradually increased. The investors then decide the industry in which they have to invest in order to get maximum returns. They analyse various industries based on their past performance and current market scenario. In India, Cement industry has been emerging as one of the crucial sectors for the institutional as well as individual investors. The share price movement is analysed broadly with two approaches, namely, fundamental approach and the technical approach. Fundamental approach analyses the share prices on the basis of economic, industry and company statistics. If the price of the share is lower than its intrinsic value, investor buys it. But, if he finds the price of the share higher than the intrinsic value he sells and gets profit. The technical analyst mainly studies the stock price movement of the security market. If there is an uptrend in the price movement the investor purchases the scrip. With the onset of fall in price he sells it and move from the scrip. Basically, technical analysis and fundamental analysis aim at good return on investment. The price movements of stocks can be compared to a random walk. They are totally unpredictable. There are several theories to explain stock prices though Random Walk Theory (RWT) and Efficient Market Theory (EMT) have been more popular among researchers despite the fact that empirical evidence does not lend credence to the assumptions of perfectly competitive stock markets or their random operation. The present study “A STUDY ON SHARE PRICE MOVEMENTS OF SELECTED INDIAN CEMENT COMPANIES” selected four companies such as ULTRATECH CEMENTS LIMITED, ACC LIMITED, SHREE LIMITED and RAMCO LIMITED listed in the National stock exchange for a period of 5 years from financial year 2013-14 to 2017-18 to determine price movement of stocks in those selected companies to determine the objective of average share price and forecast the movement of changes in the share price of selected 4 companies.

### 2. REVIEW OF LITERATURE:

**Dr.S.Baranidharan, N.Dhivya (2018)** made a study entitled as “Causal Relationship and Volatility of BSE Index with special references to Indian Stock Market”. They found that there would be a bidirectional relationship exists between the BSE SENSEX, BSE AUTOEX, BSE CORBANEX and BSE GREENEX. It also explored that the integration and

price movements of BSE Indices has been examined through the tools such as Johansen Co-integration and Granger Causality test for the period of 2010-2018. Through Unrestricted Co-integration test, the study observed that there is a long run relationship and also the price movement of BSE affects the other Indices.

**Dr. Kavitha Muthukumar and Dr. Vani Haridasan (2018)**, “Performance Analysis of Select Companies in Cement Industry Using Various Models”, the study is carried on those companies (Ultratech Cements, Shree Cements, Ambuja Cements, ACC cements, Dalmia Bharat) and concluded that each company has different values for the ratios and there is sudden and lowering of the values. This was due to the external market conditions affecting the company. The study has determined that the investment is surely dependent on the past performance of the company, the external factors (economic) and obviously the price of the stock. The results vary for different models and on different perspectives of people i.e., for high and quick growth, steady growth, high profits, less affected by external factors and so on.

**Md.Shohidul Islam, Murshedul Arafin & Fatema Tuz Zohora (2017)**, Factors Affecting Share Price of Cement Industry: “A Study On Listed Cement Companies Of DSE”. The study analysed the share price movement of the factor for a specific time period. The factors are mainly categorized in three broad categories such as: dividend, company, country. Therefore, the factors included: Dividend Announcement Date & Payout Amount, Disclosure of News, and Sharp Movement of Market Index. After thorough analysis the study revealed that the most influential factors contributing to the price movement of the listed cement companies are sharp movement of market index as well as the disclosure of news whereas dividend did not affect that much surprisingly. It was also found that the theoretical perspectives regarding the stock market are often surpassed by different stock market volatility variables due to the inefficiency of the existing capital market.

**Shafiqul Alam, Md. Rubel Miah and Md. Abdul Karim, (2016)**, “Analysis on Factors that Affect Stock Prices: A Study on Listed Cement Companies at Dhaka Stock Exchange”, The study investigated on identifying the main forces that affect share prices in the capital market of Bangladesh through collecting panel data set of 7 companies of cement industry listed in the Dhaka Stock Exchange (DSE) for the period 2006-2015. The investigation approach is designed with Ordinary Least Square (OLS) regression with fixed effects and random effects models. Six fundamental and technical issues namely earning per Share (EPS), Net Asset Value Per Share (NAVPS), Price Earnings (P/E), Gross Domestic Production (GDP), Consumer Price Index (CPI) and Interest Rate Spread (IRS) have been brought in light as the major determinants of prices in cement industry. The study found that variables are instrumental in affecting the share prices in the Bangladesh market as far as the cement industry is concerned and also resulted that EPS, NAVPS, P/E and CPI have been found significantly instrumental for cement industry in Bangladesh contexts while other variables were not found noticeably significant. A moderate R square (0.1142-.4567) found in both the Fixed and Random models justify the considerable impact of these variables on the market price of shares.

### 3. HYPOTHESIS:

H0: There is no significant relationship between years and the mean share prices of selected cement companies.

Ha: There is significant relationship between years and the mean share prices of selected cement companies.

### 4. RESEARCH METHODOLOGY:

#### 4.1 Statement of the problem

The main objective of making investment in the shares of companies is to get secured maximum return. The investor has to carefully analyse various risks involved therein. In this regard, apart from the company's performance and profitability investors should know how far the external factors have an impact on the share price variations to enable them to make informed investment decisions. The market price of the shares of a company tends to change according to internal as well as external factors. The internal factors include profitability, dividend pattern, earnings per share, etc. The investors critically evaluate the price of the shares on the basis of these factors. At the same time, the external factors also play a pivotal role in determining the market price of the shares of a company. These factors include stock market indices, sectoral indices, changes in the political scenario, policies of the government and other governing authorities, etc. The external factors such as changes in the political scenario and policies of the government and governing authorities may have the least impact on the share prices as they may occur occasionally. However, the stock market indices may have a greater impact on the share prices which determine the volatility or otherwise of the shares. The present study has been undertaken to analyse the share price movement of cement industry as the infrastructure industry is getting importance rapidly.

#### 4.2 Objectives of the study

- 1) To find the Average share prices of selected cement companies at IFCI Financial Services
- 2) To forecast the Movement of changes in the share price of selected cement companies at IFCI
- 3) To find the significance relationship between the years and the mean share prices of selected cement companies at IFCI.

#### 4.3 Need of the study

The cement industry is one of the vital industries for economic development in a country. The total utilization of cement in a year is used as an indicator of economic growth. Cement is necessary for infrastructure development and a key raw material for the construction industry, especially in the government development plans in the context of the nation socioeconomic development. Cement industry has been the hot sector for the past few decades. In 1990 investors in the cement industry gained substantially irrespective of what company they selected for investment, the reason being an excellent turnaround in the cement industry. During the recent past, large cement manufacturers reported higher revenues and improved profitability. However, smaller players were unable to improve their top-line and most posted losses. An increase in energy costs on account of higher fuel prices was more than offset by higher increase in prices. As a result, operating profits increased. Hence, investment in the shares of the companies in this industry could be fruitful for the investors. The investment in cement 34 companies brought more income to the investor than the other investment of shares. Cement industry has been emerging as one of the crucial sectors for the institutional as well as individual investors.

#### 4.4 Sources of Collection

The study is based on the secondary data. The data on share price movement of select cement industries were collected from secondary sources like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries. Appropriate information on share price movements was collected from other secondary sources like financial journals, business magazines, books, etc.

#### 4.5 Study Period

The secondary data for the purpose of the study were collected for a period of five years. The study relates to the share price movements of select cement companies for a period of 5 years from financial year 2013-14 to 2017-18.

#### 4.6 Sample Selection

The cement industries listed in National Stock Exchange are 51. Out of these 4 cement companies on the basis of market share, production and installed capacity were taken for this study, which account for 10 percent of the listed cement companies in National Stock Exchange.

- 1) ULTRATECH CEMENTS LIMITED
- 2) ACC LIMITED
- 3) SHREE LIMITED
- 4) RAMCO LIMITED

#### 4.7 Tools used for Study

The analysis of data was done with the help of various mathematical and statistical tools. Simple tools such as

- Mean
- Standard Deviation,
- Coefficient of variation
- Trend analysis
- Regression.

#### 4.8 Data Analysis and Interpretation

##### 4.8.1 Calculation of Monthly Average share price of selected cement companies.

**Table 4.8.1.1 Showing Average Share Price of Ultratech Cements Limited and ACC Limited**

Month	2013-14		2014-15		2015-16		2016-17		2017-18	
	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC
April	1070.57	1105.93	1147.13	1266.13	1859.07	1201.27	2105.95	1324.33	2774.73	1512.88
May	1040.1	1034.93	1383.77	1169.05	1937.8	1229.88	2269.68	1352.67	2875.93	1480.27
June	968.267	973.7	1474.17	1218.27	1864.88	1208.05	2605.82	1442.52	2003.47	1447.58
July	998.567	995.48	1595.17	1299.65	1882.9	1202.18	2490.23	1443.02	3165.08	1417.65
August	1031.12	990.9	1687.57	1327.77	1570.2	1026.75	2556.82	1466.78	2980.93	1369.73
September	1123.2	1066.35	1865.85	1410.67	1702.47	1054.62	2637.57	1449.83	2276.15	1352.08
October	1133.13	1169.98	1989.83	1429.83	1923.43	1131.27	2505.3	1454.3	2850.57	1372.08
November	1147.27	1158.23	1959.83	1407.77	1892.75	1087.57	2535.02	1474.32	2804.7	1362.68
December	1163.87	1150.3	1977.72	1417.78	1810.78	1120.55	2595.22	1427.08	2808.95	1346.4
January	1195.17	1160.83	1934.03	1358.9	1707.3	1034.38	2982.73	1497.22	2748.72	1275.15
February	1367.2	1305.27	1890.52	1274.85	1788.95	1067.83	3083.43	1619.97	2796.07	1225.88
March	1468.55	1345.82	1875.2	1192.65	2067.67	1300.18	3003.78	1625.13	3086.6	1325.63
<b>Mean</b>	<b>1142.25</b>	<b>1121.48</b>	<b>1756.73</b>	<b>1314.44</b>	<b>1834.02</b>	<b>1138.71</b>	<b>2614.30</b>	<b>1463.93</b>	<b>2805.99</b>	<b>1374.00</b>
<b>SD</b>	<b>147.60</b>	<b>118.98</b>	<b>226.71</b>	<b>92.18</b>	<b>130.14</b>	<b>88.24</b>	<b>289.60</b>	<b>88.67</b>	<b>285.16</b>	<b>81.66</b>
<b>CV</b>	<b>0.11</b>	<b>0.06</b>	<b>0.13</b>	<b>0.07</b>	<b>0.07</b>	<b>0.08</b>	<b>0.13</b>	<b>0.11</b>	<b>0.10</b>	<b>0.06</b>

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Interpretation:**

It is inferred that Monthly average share price of ULTRTECH CEMENTS LIMITED increased from rupees 1070.57 to 1468.55 during the year 2013-14 with mean of rupees 1142.25 and a standard deviation of Rupees 147. Share price of year 2014 -15 increased from rupees 1447.13 to 1875.2 at the end of the year, the mean and SD were rupees 1756.73 and rupees 226.710. In the year 2015-16 with the mean of rupees 1834.01 and standard deviation of rupees 130.14. In the year 2016-17 the mean of rupees 2614.295 and standard deviation of rupees 289.598. During the year 2017-18 the mean share price of the year was 2805.99 and standard deviation of rupees 285.157. The mean of share price of ULTRATECH reveals that the mean share price was the highest at rupees 2805.99 during the year. The monthly average share price of ULTRATECH witnessed a greater variation during the year 2016-17 as measured by the coefficient of variation 12.9 percent. It is inferred that Monthly average share price of ACC CEMENTS LIMITED increased from rupees 1105.93 to 1345.82 during the year 2013-2014 with mean of rupees 1121.47 and a standard deviation of Rupees 118.98 .The monthly average share price of year 2014 -15 increased from rupees 1266.13 to 1192.65 at the end of the year .the mean SD were rupees 1314.44 and rupees 92.17. In the year 2015-16 the mean of rupees 1138.71 and standard deviation of rupees 88.67. In the year 2016-17 there was an increase from rupees 1324.33 to Rupees 1625.13. The monthly average share price during the year 2017-18 was measured to be rupees 1325.63 from 1512.88 the mean of share price of ACC reveals that the mean share price was the highest at rupees 1463.93 during the year 2016-17. The monthly average share price of ACC witnessed a greater variation during the year 2016-17 as measured by the coefficient of variation 10.6 percent.

**Table 4.8.1.2 Showing Average Share Price of Shree Cements Limited and Ramco Limited**

Month	2013-14		2014-15		2015-16		2016-17		2017-18	
	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO
April	1996.27	102.92	2939.17	148.92	4329.17	243.6	5954.62	216.98	10408.2	312.48
May	1876	92.35	2586.85	145.13	4864.45	234.82	6535.7	253.08	11127.27	320.37
June	1741.6	84.68	2782.1	151.75	4642.75	229.27	7345.98	282.98	7708.17	329.48
July	1771.67	88.07	3039.22	161.1	4432.57	181.55	7246	286.8	11279.93	354.72
August	1708.33	87.55	3369.67	178.33	3807.85	155.13	7718.53	314.78	10944	341.62
September	1754.28	96.82	3752.7	188.22	3970.12	174.05	8367.38	329.45	11535.43	318.18
October	1857.2	102.87	4132.5	196.28	4371.4	180.25	8819.47	331.83	1243.7	352.25
November	2014.13	111.67	4253.87	208.03	4376.78	168.85	9023.8	350.42	11475.6	373.58
December	2082.8	105.2	4505.6	232.27	4367.92	158.35	9203.98	333.02	11191.57	383.38
January	2195.7	110.88	4470.97	237.27	4369.85	171.57	1033.67	348.33	11466.1	383.68
February	2620.75	139.98	4469.43	237.98	4584.2	171.82	10944.23	339.65	10360.58	368.85
March	3065.52	149.43	4154.33	254.57	5319.77	204.48	10818.43	312.98	11918.3	395.85
<b>Mean</b>	<b>2057.02</b>	<b>106.04</b>	<b>3704.70</b>	<b>194.99</b>	<b>4453.07</b>	<b>189.48</b>	<b>8526.40</b>	<b>308.36</b>	<b>10987.32</b>	<b>352.87</b>
<b>SD</b>	<b>407.56</b>	<b>106.29</b>	<b>722.65</b>	<b>198.83</b>	<b>389.12</b>	<b>184.97</b>	<b>1636.62</b>	<b>41.04</b>	<b>1181.44</b>	<b>28.57</b>
<b>CV</b>	<b>0.20</b>	<b>0.00</b>	<b>0.19</b>	<b>0.02</b>	<b>0.09</b>	<b>0.98</b>	<b>0.19</b>	<b>0.13</b>	<b>0.11</b>	<b>0.08</b>

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Interpretation**

It is inferred that Monthly average share price of SHREE CEMENTS LIMITED increased from rupees 1996.27 to 3065.52 during the year 2013-2014 with mean of rupees 2057.02 and a standard deviation of Rupees 407.55 .The monthly average share price of year 2014 -15 increased from rupees 2939.17 to 4154.33 at the end of the year .the mean and SD were rupees 3704.7 and rupees 722.64. In the year 2015-16 the mean of rupees 4453.07 and standard deviation of rupees 389.12. In the year 2016-17 there was an increase from 5954.62 to Rupees 10818.43. The monthly average share price during the year 2017-18 increased from rupees 10408.2 to 11918.3. The mean and SD of the year measured to be 10987.32 and 1181.437. The mean of share price of SHREE reveals that the mean share price was the highest at rupees 10987.32 during the year 2017-2018. The monthly average share price of SHREE witnessed a greater variation during the year 2013-14 as measured by the coefficient of variation 19.81 percent. It is inferred that Monthly average share price of RAMCO CEMENTS LIMITED increased from rupees 102.92 to 149.43 during the year 2013-2014 with mean of rupees 106.03 and a standard deviation of Rupees 106.29. The monthly average share price of year 2014 -15 increased from rupees 148.92 to 254.57 at the end of the year .The mean and SD were rupees 194.987 and rupees 198.826. In the year 2015-16 the mean of rupees 189.478 and standard deviation of rupees 184.968. In the year 2016-17 there was an increase from 216.98 to Rupees 312.98. The monthly average share price during the year 2017-18

increased from rupees 312.48 to 395.85. The mean and SD of the year measured to be 352.87 and 28.572. The monthly average share price of RAMCO witnessed a greater variation during the year 2015-16 as measured by the coefficient of variation 9.76 percent.

**4.8.2 Calculation of Trend analysis of selected cement companies:**

**4.8.2.1 Table shows the Trend analysis of selected four cement companies**

PARTICULARS	ULTRATECH		ACC		SHREE		RAMCO	
	Mean value	Trend	Mean value	Trend	Mean value	Trend	Mean value	Trend
2013-14	1142	0	1121.47	0	2057.02	0	106.03	0
2014-15	1757	53.85	1314.44	17.2	3704	80	195	84
2015-16	1834	60.59	1138.71	1.53	4453.07	116	189	78
2016-17	2614	128.89	1463.93	30.53	8526.4	314	308	190
2017-18	2806	145.7	1374	22.51	10987.32	434	352	232

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Interpretation**

From the above Table, It was found that the trend percentage ratio for ULTRATECH CEMENTS LIMITED is found to be 53.85 in 2014-2015, 60.59 in 2015-2016, 128.89 in 2016-17 and 145.7 in the year of 2017-2018. The trend ratio of ULTRATECH CEMENTS LIMITED shows an increasing trend. The trend percentage ratio for ACC CEMENTS LIMITED is found to be 17.20 in 2014-2015, 1.53 in 2015-2016, 30.53 in 2016-17 and 22.51 in the year of 2017-2018. The trend ratio of ACC CEMENTS LIMITED shows an increasing trend.

The trend percentage ratio for SHREE CEMENTS LIMITED is found to be 80 in 2014-2015, 116 in 2015-2016, 314 in 2016-17 and 434 in the year of 2017-2018. The trend ratio of SHREE CEMENTS LIMITED shows an increasing trend. The trend percentage ratio for RAMCO CEMENTS LIMITED is found to be 84 in 2014-2015, 78 in 2015-2016, 190 in 2016-17 and 232 in the year of 2017-2018. The trend ratio of RAMCO CEMENTS LIMITED shows an increasing trend.

**4.8.3 Calculation of Regression of selected cements companies:**

**Table 4.8.3.1 Showing Monthly Average Share Price of Ultratech Cements and ACC Limited.**

Month	2013-14		2014-15		2015-16		2016-17		2017-18	
	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC
April	1070.57	1105.93	1147.13	1266.13	1859.07	1201.27	2105.95	1324.33	2774.73	1512.88
May	1040.1	1034.93	1383.77	1169.05	1937.8	1229.88	2269.68	1352.67	2875.93	1480.27
June	968.267	973.7	1474.17	1218.27	1864.88	1208.05	2605.82	1442.52	2003.47	1447.58
July	998.567	995.48	1595.17	1299.65	1882.9	1202.18	2490.23	1443.02	3165.08	1417.65
August	1031.12	990.9	1687.57	1327.77	1570.2	1026.75	2556.82	1466.78	2980.93	1369.73
September	1123.2	1066.35	1865.85	1410.67	1702.47	1054.62	2637.57	1449.83	2276.15	1352.08
October	1133.13	1169.98	1989.83	1429.83	1923.43	1131.27	2505.3	1454.3	2850.57	1372.08
November	1147.27	1158.23	1959.83	1407.77	1892.75	1087.57	2535.02	1474.32	2804.7	1362.68
December	1163.87	1150.3	1977.72	1417.78	1810.78	1120.55	2595.22	1427.08	2808.95	1346.4
January	1195.17	1160.83	1934.03	1358.9	1707.3	1034.38	2982.73	1497.22	2748.72	1275.15
February	1367.2	1305.27	1890.52	1274.85	1788.95	1067.83	3083.43	1619.97	2796.07	1225.88
March	1468.55	1345.82	1875.2	1192.65	2067.67	1300.18	3003.78	1625.13	3086.6	1325.63

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Table 4.8.3.2 Showing Forecasted Share Price of Ultratech Cements and ACC Limited For the Year 2018 – 19**

	2017 - 18		FORECAST 2018 -19		ABS ERROR		SQUARE ERROR		% ERROR	
	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC	ULTRATECH	ACC
01-Apr-17	2774.73	1512.88	2761.98	1423.10	12.75	89.78	162.60	8060.09	0.00	0.06
01-May-17	2875.93	1480.27	2799.43	1429.91	76.50	50.36	5852.19	2535.93	0.03	0.03
01-Jun-17	2003.47	1447.58	2838.13	1436.95	834.66	10.63	696658.65	113.02	0.42	0.01
01-Jul-17	3165.08	1417.65	2875.58	1443.76	289.50	26.11	83808.63	681.68	0.09	0.02
01-Aug-17	2980.93	1369.73	2914.28	1450.80	66.65	81.07	4441.80	6571.70	0.02	0.06
01-Sep-17	2276.15	1352.08	2952.98	1457.83	676.83	105.75	458103.72	11183.70	0.30	0.08
01-Oct-17	2850.57	1372.08	2990.44	1464.64	139.87	92.56	19562.39	8567.91	0.05	0.07
01-Nov-17	2804.70	1362.68	3029.14	1471.68	224.44	109.00	50371.52	11881.00	0.08	0.08
01-Dec-17	2808.95	1346.40	3066.59	1478.49	257.64	132.09	66377.34	17447.77	0.09	0.10
01-Jan-18	2748.72	1275.15	3105.29	1485.53	356.57	210.38	127141.02	44258.48	0.13	0.17
01-Feb-18	2796.07	1225.88	3143.99	1492.56	347.92	266.68	121047.49	71120.36	0.12	0.22
01-Mar-18	3086.60	1325.63	3178.94	1498.92	92.34	173.29	8527.41	30029.42	0.03	0.13
					<b>281.31</b>	112.31	<b>136837.90</b>	17704.25	<b>0.11</b>	0.08
					<b>MAD</b>	<b>MAD</b>	<b>MSE</b>	<b>MSE</b>	<b>MAPE</b>	<b>MAPE</b>

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Interpretation**

From the above table it is inferred that the Mean absolute deviation is 281.305, Mean Square error is 136837.897 and Mean Absolute Percentage Error is 11.37%. The future price of the stock price has been predicted, which ranges between Rs.2761.98 to Rs 3178.94 in the year 2018 -19 at the Ultra Tech Limited.

From the above table it is inferred that the Mean absolute deviation is 112.308, Mean Square error is 17704.254 and Mean Absolute Percentage Error is 8.46%. The future price of the stock price has been predicted, which ranges between Rs.1423.10 to Rs 1498.92 in the year 2018 -19 at the ACC limited.

**Table 4.8.3.3 Showing Monthly Average Share Price of Shree Cements and Ramco Limited.**

Month	2013-14		2014-15		2015-16		2016-17		2017-18	
	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO
April	1996.27	102.92	2939.17	148.92	4329.17	243.6	5954.62	216.98	10408.2	312.48
May	1876	92.35	2586.85	145.13	4864.45	234.82	6535.7	253.08	11127.27	320.37
June	1741.6	84.68	2782.1	151.75	4642.75	229.27	7345.98	282.98	7708.17	329.48
July	1771.67	88.07	3039.22	161.1	4432.57	181.55	7246	286.8	11279.93	354.72
August	1708.33	87.55	3369.67	178.33	3807.85	155.13	7718.53	314.78	10944	341.62
September	1754.28	96.82	3752.7	188.22	3970.12	174.05	8367.38	329.45	11535.43	318.18
October	1857.2	102.87	4132.5	196.28	4371.4	180.25	8819.47	331.83	1243.7	352.25
November	2014.13	111.67	4253.87	208.03	4376.78	168.85	9023.8	350.42	11475.6	373.58
December	2082.8	105.2	4505.6	232.27	4367.92	158.35	9203.98	333.02	11191.57	383.38
January	2195.7	110.88	4470.97	237.27	4369.85	171.57	1033.67	348.33	11466.1	383.68
February	2620.75	139.98	4469.43	237.98	4584.2	171.82	10944.23	339.65	10360.58	368.85
March	3065.52	149.43	4154.33	254.57	5319.77	204.48	10818.43	312.98	11918.3	395.85

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Table 4.8.3.4 Showing Forecasted Share Price of Shree and Ramco for the Year 2018 – 19**

	2017 - 18		FORECAST 2018- 2019		ABS ERROR		SQUARE ERROR		% ERROR	
	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO	SHREE	RAMCO
01-Apr-17	240.93	312.48	321.33	230.76	8.8492	10.166	78.308	103.348	2.83%	4.22%
01-May-17	234.85	320.37	326.26	232.68	5.8852	2.166	34.636	4.692	1.84%	0.92%
01-Jun-17	228.42	329.48	331.35	234.67	1.8654	6.248	3.48	39.038	0.57%	2.74%
01-Jul-17	238.78	354.72	336.27	236.59	18.4486	2.192	340.351	4.805	5.20%	0.92%
01-Aug-17	214.17	341.62	341.36	238.57	0.2584	24.402	0.067	595.458	0.08%	11.39%
01-Sep-17	207.85	318.18	346.45	240.56	28.2718	32.706	799.295	1069.682	8.89%	15.74%
01-Oct-17	208.13	352.25	351.38	242.48	0.8722	34.346	0.761	1179.648	0.25%	16.50%
01-Nov-17	206.22	373.58	356.47	244.46	17.112	38.24	292.821	1462.298	4.58%	18.54%
01-Dec-17	198.98	383.38	361.39	246.38	21.986	47.4	483.384	2246.76	5.73%	23.82%
01-Jan-18	195.65	383.68	366.48	248.36	17.1958	52.714	295.696	2778.766	4.48%	26.94%
01-Feb-18	191.63	368.85	371.57	250.35	2.7244	58.718	7.422	3447.804	0.74%	30.64%
01-Mar-18	218.8	395.85	376.17	252.14	19.678	33.34	387.224	1111.556	4.97%	15.24%
					<b>143.147</b>	<b>28.5532</b>	<b>2723.44</b>	<b>1170.321</b>	<b>3.35%</b>	<b>13.97%</b>
					<b>MAD</b>	<b>MAD</b>	<b>MSE</b>	<b>MSE</b>	<b>MAPE</b>	<b>MAPE</b>

Sources: secondary Data like reports of Centre for Monitoring Indian Economy, the Data Bank of Institute of Financial Management and Research, Annual Reports of the select cement industries

**Interpretation:**

From the above table it is inferred that the Mean absolute deviation is 2091.542, Mean Square error is 4817826.441 and Mean Absolute Percentage Error is 18.88%. The future price of the stock price has been predicted, which ranges between Rs.8098.95 to Rs 9715.88 in the year 2018 -19 at Shree Limited.

From the above table it is inferred that the Mean absolute deviation is 143.147, Mean Square error is 2723.4429 and Mean Absolute Percentage Error is 3.35%. The future price of the stock price has been predicted, which ranges between Rs.321.33 to Rs.376.17 in the year 2018 -19 at Ramco Limited.

**5. FINDINGS:**

Share prices of selected companies have been analysed with mean, standard deviation and coefficient of variation .Monthly average share prices prevailing Bombay stock Exchange were taken into account.

- 1) The average share price of ULTRATECH CEMENTS reveals that the mean share price was the highest at RS. 2805.99 During 2017-18.However, the mean share price was reduced to RS. 2614.29 During 2016-17. Though there is a fall in the latest year, there exists a positive trend in the share price of ULTRATECH CEMENTS from the base year 2013 – 14. The share price had inclined on an average of 14.35% from the base year. The investor can keep investing in the stock.
- 2) The average share price of ACC CEMENTS reveals that the mean share price was the highest at RS.1463.93 during 2016-17.However, the mean share price was reduced to RS.1374 during 2017-18. Though there is a fall in the latest year, there exists a positive trend in the share price of ACC CEMENTS LTD from the base year 2013 – 14. The share price had inclined on an average of 77.81% from the base year.
- 3) The average share price of SHREE CEMENTS reveals that the mean share price was the highest at RS.10987.32 during 2017-18. The mean share price was at its low of RS.2057.02 during the base year 2013-2014. There is a huge inclination of 188.8 % on an average in the share price of SHREE CEMENTS LTD since its base year 2013-14. There exists a positive trend.
- 4) The average share price of RAMCO CEMENTS reveals that the mean share price was the highest at RS.352 during 2017-18. The mean share price was at its minimum of RS.106.03 during 2013-2014. There is a huge inclination of 116.8 % on an average in the share price of RAMCO CEMENTS since its base year 2013-14. There is a steady increase in the share price and there exist a positive trend throughout.
- 5) By using Trend Analysis, It is found from the trend analysis that the overall trend seems to be very positive in the Cement stocks picked for the study. The selected stocks show a remarkable increase in their price movement. [Ultratech Cements (14.35%), ACC Cements Ltd (77.81%), Shree Cements (188.8 %), and Ramco Cements (116.8 %)]

6) By using Regression Analysis, There was significant relationship between years and mean share price of ULTRATECH CEMENT LTD. The share price had inclined on an average of 14.35% from the base year 2013 – 14. Based on the past 5 years data the Mean absolute deviation is 281.305, Mean Square error is 136837.897 and Mean Absolute Percentage Error is 11.37%.The future price of the stock price has been predicted, which ranges between Rs.2761.98 to Rs 3178.94 in the year 2018 -19.

7) By using Regression Analysis, There was No significant relationship between years and mean share price of ACC CEMENT LTD. The share price had inclined on an average of 77.81% from the base year. Based on the past 5 years data the share price the Mean absolute deviation is 112.308, Mean Square error is 17704.254 and Mean Absolute Percentage Error is 8.46%. The future price of the stock price has been predicted, which ranges between Rs.1423.10 to Rs 1498.92 in the year 2018 -19.

8) By using Regression Analysis, There was significant relationship between years and mean share price of SHREE CEMENT LTD. There is a huge inclination of 188.8 % on an average in the share price of SHREE CEMENTS LTD from the base year 2013-14. Based on the past 5 years data the Mean absolute deviation is 2091.542, Mean Square error is 4817826.441 and Mean Absolute Percentage Error is 18.88%.The future price of the stock price has been predicted, which ranges between Rs.8098.95 to Rs 9715.88 in the year 2018 -19.

9) By using Regression Analysis, There was significant relationship between years and mean share price of RAMCO CEMENT LTD. There is a huge inclination of 116.8 % on an average in the share price of RAMCO CEMENTS since its base year 2013-14. There is a steady increase in the share price and there exist a positive trend throughout. Based on the past 5 years data the Mean absolute deviation is 143.147, Mean Square error is 2723.4429 and Mean Absolute Percentage Error is 3.35%.The future price of the stock price has been predicted, which ranges between Rs.321.33 to Rs.376.17 in the year 2018 -19.

## 6. CONCLUSION:

In the era of post economy reforms, investment in share has become more attractive. The retail investors have come forward to invest their stake money in the share of companies. The study found that the trend value of Ultratech cements have more opportunity to yield high return in future. The present study reveals that the share prices of stocks listed under cement industry move forward in a positive trend. Among all company evaluated, ACC limited has been found to the best one for making investment as revealed by various parameters used in the study.

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