



## Determinants of Share Price Movements : An Empirical Evidence From Nse Companies With Special Reference To Cement Sector

### KEYWORDS

Cement Sector, Augmented Dickey Fuller (ADF) Test, Jarque-Bera Test

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**ABSTRACT** A number of studies have been undertaken to identify the share prices movements and its volatility. The extant literature available strongly supports the movement of share price as a consequence of firm specific factors such as dividend, book value, earnings etc. The present study is undertaken with an attempt to determine the share prices movements and its volatility of the selected four companies viz., ACC Ltd., Ambuja Cements Ltd. Grasim Industries Ltd. and UltraTech Cement Ltd. which is in Nifty 50 companies list. The period of the study selected between January 2006 and December 2015. For examining the share price movements and its volatility, the researcher took descriptive statistics like mean, median, maximum, minimum, standard deviation, skewness, kurtosis and Jarque-Bera statistics and for finding the volatility, Augmented Dickey Fuller Test has been used. From the test results, among the selected four cement companies, Ultratech has effective share price movements when compared to other three companies. Further, all the selected four companies, has unit root problem and were not stationary. So, it is recommended that these four companies should take necessary steps to maintain its financial health and increase the market share in India.

### INTRODUCTION

The stock market is all about dynamics and that is why investors and fund managers have been time and again confronted with the problem of accurately predicting the stock prices so as to earn decent returns. Investment in shares offers the benefit of liquidity as well as the opportunity to beat the market and earn high returns. But the task of predicting share prices is far from simple. Share price movement is not independent in nature and both intrinsic as well as extrinsic factors have been established to exercise influence over stock price movements. The pioneering work on determinants of share prices by Collins (1957) for US banks identified dividend, net profit, operating earnings and book value as the factors influencing share prices. Following Collins (1957), there have been various attempts to identify the determinants of share prices for different markets. This study is an attempt to identify the share price movements of the selected cement companies which is in Nifty 50 companies list.

### REVIEW BACKGROUND

According to Venkatraman and Sowmya, (2014), India had the third largest investor base in the world after USA and Japan. Over 7500 companies were listed on the Indian stock exchanges. Derivatives had contributed substantially to this impressive development. The derivatives were defined as the future contracts whose value depends upon the underlying assets. In India, derivatives were launched mainly with two objectives namely risk transfer and to increase the liquidity for the better market efficiency. Introduction of the index future trading in the derivatives product may affect the individual stocks trading in the future market. The future market index in India was facing market fluctuations due to globalization. So, investors can make investment in future stock markets like SBI, INFOSYS, RELIANCE and to invest in future index like CNX S&P NIFTY which was now facing huge fluctuation in India, due to economic factors. Vimala et al., (2014) explored in the research that a capital market was a market for secu-

rities (debt or equity), where business enterprises (companies) and governments can raise long-term funds. Among the developing countries India had received considerable capital inflows in recent years. The factors such as Inflation, Interest rates, Deflation and Exchange rates influence the stock prices. Among the developing countries India had received considerable capital inflows in recent years. The Economy of the country was mainly based on the development of the corporate sectors. A better understanding of the stock market trend will facilitate allocation of financial sources to the most profitable investment opportunity. The behavior of stock returns will enable the investors to make appropriate investment decisions. The fluctuations of stock returns were due to several economic and non-economic factors. The study was aimed at ascertaining the behavior of share returns. This study analyzed the equity share fluctuations in India Selected Industry. It also measured the strength of the trend and the money involved in investing in the stocks. Simple moving average model was applied for selected companies which would give the investor a sell signal or buy signal. Speculation involved higher risks to get return on the other hand investment involves no such risks and returns will be fair. The investors should keenly watch the situations like market price, economy, company progress, returns, and the risk involved in a share before taking decision on a particular share. This study made will help the investors know the behavior of share prices and thus can succeed. From the research of Vinodh Kesavaraj Natarajana, et al., (2014) identified that the stock market in a country and the understanding of the influence of stock market crashes within and across the markets had been the subject matter of many researches, academicians and analysts during recent times. In this study investigated the mean-volatility spillover effects that happen across international stock markets. The study, by taking into consideration the stock market returns based on various indices, investigates the mean-volatility spillover effects using the GARCH in Mean model for the period January 2002 to December 2011. The GARCH-M model seeks to provide

useful insights into how information is transmitted and disseminated across stock markets. In particular, the model examined the precise and separate measures of return spillovers and volatility spillovers. The analysis provided the evidence of strong mean and volatility spillover across some stock exchanges.

### OBJECTIVES OF THE STUDY

To find out the share price movements of the selected companies in cement sector of Nifty 50 companies.

To examine the volatility of the selected companies of cement sector.

### METHODOLOGY

The study undertaken is analytical in nature using secondary data for the purpose of empirical evaluation of stock price movements and its volatility. In this analysis, the researcher has been taken four companies which are listed in Nifty 50 at the year 2015. The four companies are ACC Ltd., Ambuja Cements Ltd. Grasim Industries Ltd. and UltraTech Cement Ltd. The selected period for this research study is from January 2006 to December 2015. For examining the share price movements of these companies and its volatility, descriptive analysis and unit root test have applied.

### RESULTS AND DISCUSSTION

The following analyses have been discussed about the descriptive analysis of selected companies in cement sector in India.

**Table 1 : Descriptive statistics of daily returns of cement sector**

Tools	ACC	AMBUJA	GRASIM	ULTRATECH
Mean	0.038	0.038	0.041	0.076
Median	0.014	0.000	0.019	0.044
Maximum	12.688	13.862	15.439	13.664
Minimum	-16.057	-12.365	-23.202	-9.511
Std. Dev.	2.137	2.292	2.095	2.205
Skewness	-0.356	0.072	-0.286	0.234
Kurtosis	7.892	6.226	14.257	5.898
Jarque-Bera	2524.482	1077	13112	890
'p' Value	0.000*	0.000*	0.000*	0.000*

**Note : \* - Significant at 1% level**

The above table shows that during time period from January 2006 to December 2015, the mean value indicates that all the selected cement companies have positive sign and Ultratech has maximum level of daily returns. It can be seen that ACC and Ambuja has lower return as well as more volatile as compared to Ultratech and Grasim with high return and less volatile. The coefficients of skewness were found to be significant and negative for ACC and Grasim. The negative skewness implies that the return distributions of the shares traded in the market in the given period have a higher probability of earning returns greater than the mean. Similarly, the coefficients of kurtosis were found to be positive and were significantly higher than 3, indicating highly leptokurtic distribution compared to the normal distribution for all the returns. The Jarque-Bera statistic was indicated lack of normal distribution in the equity

returns, suggesting lack of symmetric nature in the equity returns.

### Unit Root Test of Cement Sector

The following table examines the volatility of the selected cement companies during the selected period of the study. For this purpose, Augmented Dickey-Fuller Test was performed including 'intercept' and 'intercept and time trend' at level and first difference for the whole period.

**Null Hypothesis ( $H_0$ )** : There is no unit root among the selected cement companies during the study period.

**Table 2 : Unit Root Testing of Daily Returns of Cement Sector**

S.No	Company Name	Level*		First Difference*	
		With Intercept	With trend & Intercept	With Intercept	With trend & Intercept
1	ACC	-47.089* (0.0001)	-47.084* (0.000)	-20.789* (0.0000)	-20.784* (0.0000)
2	Ambuja	-51.934* (0.0001)	-51.924* (0.0000)	-21.676* (0.0000)	-21.672* (0.0000)
3	Grasim	-49.198* (0.0001)	-49.190* (0.0000)	-20.130* (0.0000)	-20.126* (0.0000)
4	Ultratech	-48.240* (0.0001)	-48.231* (0.0000)	-20.541* (0.0000)	-20.536* (0.0000)

**Note: \* - Significant at 1% level; Parenthesis indicates 'p' values.**

**\* MacKinnon critical values for rejection of hypothesis of a unit root at 1%, 5% and 10% are -3.43278, -2.8625 and -2.5677 respectively**

From the above table, it is found from the result of ADF statistics that in level series it showed presence of unit root in selected cement companies as their Mackinnon's value exceeded the critical value at 1% level and so the null hypothesis of no unit root problem was rejected. It is suggested that the price series were not stationary. It was, therefore, necessary to transform the series to make it stationary by taking its first difference. ADF statistics in first difference showed that the null hypothesis of no unit root was rejected again. Thus, the results indicated that at level series and first difference has not stationary. From the result of the study, it is found that the selected cement companies were not having efficient performance in its share price movement during the study period.

### FINDINGS AND CONCLUSION

The following findings have been found from the research study.

From the descriptive research, it is found that among the four companies, Ultratech has the highest daily return series than the other three companies. Further, from the result of Jarque-Bera statistics, it is indicated lack of normal distribution in the equity returns of the selected cement companies during the 10 years of the study period.

It could be found from the unit root test, the selected four cement companies have unit root problem during the study period. That means, all the selected cement companies were not stationary in its share price for the period of selected 10 years.

It is suggested to the company that these companies should take necessary steps to maintain the financial posi-

tion and take risk to increase the market share in the forthcoming years. And, in the case of investors, they should watch carefully the companies backyards to clarify the financial strength before investing. Even though, among the four selected companies, Ultratech has good share price movements and so the investors have to plan to invest in the company.

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