



PRESSURING FACTORS AND DECISION MAKING ON INVESTMENT IN SECURITIES OF CEMENT INDUSTRIES

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Abstract

Nowadays, the cement industry is growing fast and to know, how the financial performance of the cement industries playing a vital role in investment decisions. Collateral securities of cement industry are one important constituent of capital market. It is an organized market for the purchase and sale of industrial and financial security. It is convenient place where trading in securities is conducted in systematic manner. It performs various functions and offers useful services to investors and borrowing companies. It is an investment intermediary and facilitates economic and industrial development of a country. The present study aimed that to know the factors influencing the investors' decision on collateral securities of cement industry in major cities of Tamilnadu. The cement industry is the second most consumed material on the planet. The cement companies have seen a net profit growth rate of 85 per cent. With this huge success, the cement industry in India has contributed almost 8 per cent to India's economic development.

Key words: Collateral, Security, Trade, Cement, Finance.

Introduction

Investors buy and sell securities in order to create a profit. The intention is to buy and then sell at a higher price to make a profit. This can be done through investing in a company through buying shares or through short selling and an options contract. Short selling is the process of borrowing shares of a company from a broker to sell the shares, then buying the shares back in order to compensate the broker. An option is a legal agreement which provides the buyer the power to sell or buy a share at an agreed upon price. Today, the Indian Cement Industry has assumed all the characteristics of a competitive market. It has a large number of firms, and the firms are commonly unable to maintain prices at a level that is consistent with sustained high profitability. Although the industry is fragmented, the concentration level at the top has increased over the years. The concentration has increased further with the recent consolidation process witnessed by the industry. Private companies (with 94% share in total capacity) dominate the industry. The public sector's role in the domestic cement industry has gradually declined over the years. Mini cement plants also account for a nominal share of the total installed capacity. The more efficient dry process technology is fast replacing the wet/semi-dry process technologies. Cement plants in the country are located in 7 prominent clusters. Cluster formation has taken place because of the existence of limestone reserves in select regions of the country. The Northern and Southern regions are the main producers and consumption centres of cement.

Because of the inherent characteristics of cement, the technological advancements in the industry have been in the areas of greater energy efficiency and cost effective cement transportation. A turnaround situation exists when a company that has been making losses for a number of years starts turning the corner and is expected to begin making profits. Since the company has been making losses, its shares are likely to be quoted at very low prices, often below par. Once the company wipes out its accumulated losses and begins to make profits, its changed fortunes are bound to be reflected in a sharp and steep rise in the price of its shares. This rise can be as high as 200 to 300 per cent in one year. The present study aimed that to know the factors influencing the investors' decision on collateral securities of cement industry in major cities of Tamilnadu.

Materials and Methods

Anita Jangra (2014) evaluated the consumption, investment and the market size of the cement industries in India. They play a vital role in the growth of India. In India, there are 69 industries manufacturing cement. The housing segment accounts for a main portion of total domestic demand for cement in India. The government of India is muscularly focused on infrastructure development to boost economic development and plans to increase investment in infrastructure to twelfth five year plan (2012-17). During the plan, the industry is estimated to add a capacity of 150 MT of Cement productions. Housing development plays significant role in growth of India by providing many funds through the higher consumption. Geetha and Ramasamy (2014) stated that the production of cement in India has increased at a compound annual growth rate (CAGR) of 9.7 percent to reach 272 million tons (MT) in the period 2006-2013. It is expected to touch 407 MT by 2020. In this research, the authors make use of cement industry in India to find out the overall financial performance efficiency. India is the second largest producer of cement in the world. Twelve years data has been employed in this study from 2001-2002 to 2012-2013. To find out the overall performance efficiency, the study employed Ratio Analysis and Compound Aggregate Growth rate



(CAGR) and found that the cement industry performance was good in India during the study period. The study concluded that the Cement companies in India have to consolidate in order to become strong, vibrant and also they have to concentrate on export market. Hossain and Ul-Hug (2014) tried to find out the credit strength and financial performance of cement industries in Bangladesh through investigating the financial report for the period from 2007 to 2011. Financial ratios are employed to measure the Liquidity (Working capital to Total Assets), Volatility (Market Value of Equity to Book Value of Total Liabilities), Profitability (Retained Earnings to Total Assets), Efficiency (Earnings before Interest and Taxes to Total Assets), and Total Asset Turnover analysis (Sales to Total Assets). For analyzing, the credit strength of the cement industry in Bangladesh, a well-known model of predicting credit strength named “Altman Z Score Model” has been used. The study found that the cement companies in Bangladesh are mostly on financial Distress Position because the sample industry held about 48% over the last 5 years where about 32% of the companies are in the Grey Zone and only 20% of the companies are in Safe Position. So, the credit strength of cement industry in Bangladesh is far behind of its landmark.

The validity of any research depends on the systematic method of collecting the data, and analyzing the same in a sequential order. In the present study, an extensive use of both primary and secondary data was made. For collecting primary data, field survey technique was employed in the study. First-hand information was collected from 650 investors of major cities in Tamilnadu. The respondents were selected by using simple random sampling method from the selected areas. In order to fulfill the objectives set, a sample study was undertaken by using a well-framed questionnaire that was duly filled by the respondents. The primary data were supplemented by a spate of secondary sources of data. The secondary data pertaining to the study was gathered from the records and leading journals. By virtue of mass data obtained from the research survey, as well as the data collected from secondary sources descriptive and analytical research was considered the most appropriate for the study. The research problems and the questionnaire were all framed accordingly. Factor analysis was used for the further analysis of the study.

Results and Discussions

The organizational factors influencing the decision making on investment in securities of cement industries was studied by measuring opinion of the respondents through thirty three statements of cognitive components, affective component and conative components. These 33 statements were chosen and classified in an orderly form, and factor analysis was employed and the detailed analysis and discussions are done at various stages.

Table.1, Organizational Factors Influencing The Decision Making on Investment In Securities of Cement Industries

Va. No.	Factors
1	Size of business
2	Ownership structure
3	Bonus
4	Past performance
5	Goodwill of the firm
6	Future financial security
7	Composition of board of directors
8	Administration of the organization
9	Dividend paid
10	Trusted agents
11	Shareholders of the organization
12	Productivity
13	Market capitalization
14	Net property plant and equipment
15	investment in unconsolidated subsidiaries
16	Lock in period
17	Degree of transparency
18	Credit rating
19	Corporate strategy
20	Planning investment
21	Shareholder return
22	Block holding
23	Sales growth of the firm



24	Risk management of the firm
25	Short term debt to assets
26	Corporate governance
27	Money supply
28	Long term debt to assets
29	Gross domestic product
30	Cost and profit efficiency
31	Fluctuation in the price index
32	Recent price movement in a firms stock
33	Current economic indicators

In factor analysis, the analytical process is based on a matrix of correlation between the variables. Valuable insights can be gained from an examination of this matrix. If the factor analysis should be proper, the variables must be correlated. If the correlation between all the variables is very low and negligible, then the factor analysis may not be appropriate.

Keiser (1974) suggested that the accepting values greater than 0.5 as acceptable, values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good. Similarly, the values above 0.9 are very good.

Table 2

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.917
Bartlett's Test of Sphericity	Approx. Chi-Square	20814.309
	Df	528
	Sig.	.000

Table 2 exhibits the KMO results. If the values of this test stand very small or low, it indicates that the correlation among the variables is not satisfactory and factor analysis will not be suitable. But as apparent in above table, the value is 0.917 which is not less than 0.5 and hence satisfactory. So, the factor analysis for the present study is effective and suitable.

In the present study, the data matrix comprising a large number of identified variables which are inter-related have been tested for the amount of variance that each variable shares with all other variables and the same has been presented in table 3.

Table 3, Communalities

	Initial	Extraction
Size of business	1.000	.868
Ownership structure	1.000	.679
Bonus	1.000	.842
Past performance	1.000	.722
Goodwill of the firm	1.000	.796
Future financial security	1.000	.752
Composition of board of directors	1.000	.759
Administration of the organization	1.000	.756
Dividend paid	1.000	.727
Trusted agents	1.000	.483
Shareholders of the organization	1.000	.698
Productivity	1.000	.369
Market capitalization	1.000	.687
Net property plant and equipment	1.000	.873
investment in unconsolidated subsidiaries	1.000	.679
Lock in period	1.000	.836
Degree of transparency	1.000	.717

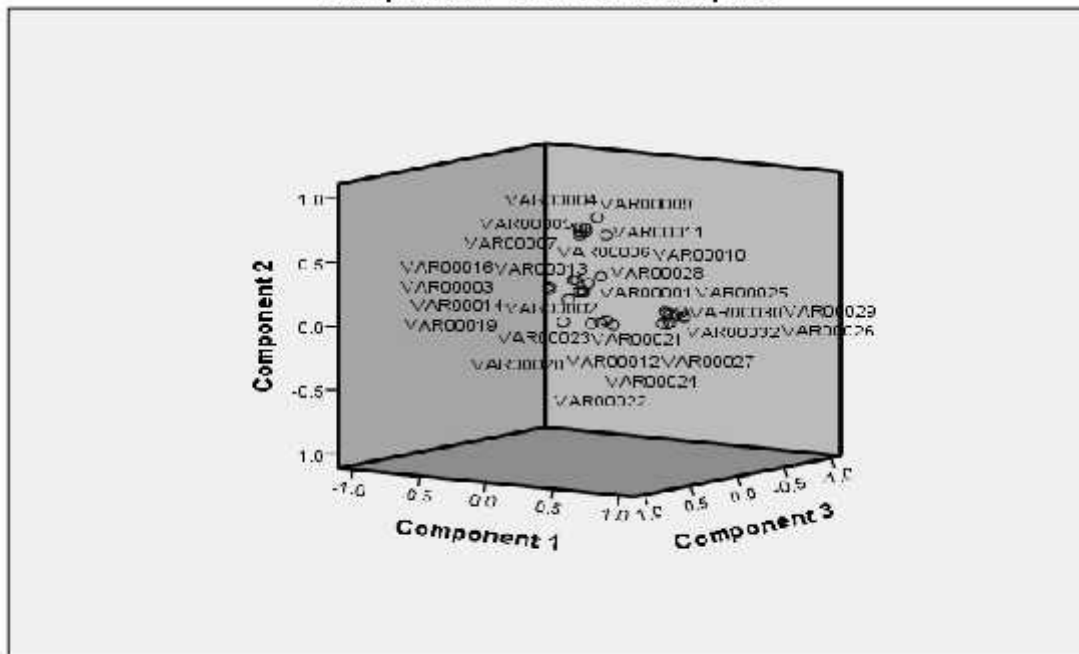


Credit rating	1.000	.673
Corporate strategy	1.000	.637
Planning investment	1.000	.685
Shareholder return	1.000	.680
Block holding	1.000	.717
Sales growth of the firm	1.000	.761
Risk management of the firm	1.000	.482
Short term dept to assets	1.000	.585
Corporate governance	1.000	.623
Money supply	1.000	.625
Long term debt to assets	1.000	.634
Gross domestic product	1.000	.647
Cost and profit efficiency	1.000	.648
Fluctuation in the price index	1.000	.565
Recent price movement in a firms stock	1.000	.583
Current economic indicators	1.000	.602

The communalities shown in table 3 measures the amount of variance, a variable shares with all other variables. It is a proportion of each variable's variance as explained by the principal component. A large communality means a large amount of the variance a variable has extracted by the factor solution. It shows that variables with a comparatively higher value are well-represented in the common factor space, while the low value variables are not. Thus, the table indicates that the extracted communalities are high and acceptable for all the variables.

Chart-1

Component Plot in Rotated Space



It is essential that the scale constructed and the components extracted should be able to explain the variance in the data. To analyse this variance, the Eigen values are calculated. A low Eigen value contributes very little to the explanation of the variances in the set of variables being analysed. The sum of Eigen values, as expected, is equal to the number of variables being analysed. To measure the factors generally plays an important role in buying decision of two-wheeler, the initial Eigen values, extraction sums of squared loadings and the rotation sums of squared loadings have been presented in table 4.



Table 4, Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.700	41.516	41.516	13.700	41.516	41.516	6.342	19.217	19.217
2	3.619	10.965	52.481	3.619	10.965	52.481	5.534	16.771	35.988
3	2.328	7.053	59.535	2.328	7.053	59.535	4.411	13.366	49.354
4	1.640	4.970	64.504	1.640	4.970	64.504	3.236	9.806	59.159
5	1.104	3.344	67.849	1.104	3.344	67.849	2.868	8.689	67.849
6	.884	2.680	70.528						
7	.853	2.585	73.113						
8	.768	2.327	75.440						
9	.638	1.933	77.373						
10	.604	1.831	79.205						
11	.586	1.777	80.982						
12	.538	1.630	82.612						
13	.493	1.493	84.105						
14	.479	1.452	85.557						
15	.440	1.334	86.891						
16	.421	1.276	88.168						
17	.399	1.208	89.376						
18	.388	1.177	90.553						
19	.374	1.135	91.687						
20	.350	1.061	92.748						
21	.331	1.004	93.752						
22	.315	.954	94.706						
23	.306	.927	95.632						
24	.251	.759	96.392						
25	.243	.736	97.128						
26	.237	.720	97.848						
27	.211	.640	98.487						
28	.181	.549	99.036						
29	.142	.431	99.467						
30	.130	.395	99.861						
31	.024	.073	99.934						
32	.014	.043	99.978						
33	.007	.022	100.000						

Extraction Method: Principal Component Analysis

From table No. 4, it was observed that the labelled “Initial Eigen values” gives the Eigen values. The Eigen value for a factor indicates the “Total Variance” attributed to the factor. From the extraction sum of squared loadings, it was learnt that the first factor accounted for a variance 13.700 which was 41.516%, the second factor accounted for the variance 3.619 which was 10.965%, the third factor accounted for the variance 2.328 which was 7.053%, the fourth factor accounted for the variance



1.640 which was 4.970% and the fifth factor accounted for the variance 1.104 which was 3.344%. All these five factors put together showed the total percentage of the variance with 67.849.

In this approach only factors with Eigen values greater than 4.00 are retained and the other factors are not included in this model. The four components possessing the Eigen values which were greater than 4.00 were taken as the components extracted.

Table 5, Component Matrix (A)

Variables	Component				
	1	2	3	4	5
Bonus	.801				
Degree of transparency	.800				
Lock in period	.792				
Credit rating	.785				
Investment in unconsolidated subsidiaries	.770				
Ownership structure	.769				
Goodwill of the firm	.745	-.416			
Corporate strategy	.739				
Administration of the organization	.725				
Future financial security	.720				
Composition of board of directors	.713				
Planning investment	.697				
Long term debt to assets	.671	.412			
Corporate governance	.650	.422			
Shareholders of the organization	.643				
Net property plant and equipment	.634		-.475		
Size of business	.629		-.472		
Cost and profit efficiency	.627	.456			
Past performance	.622	-.466			
Short term debt to assets	.612	.435			
Money supply	.607	.472			
Gross domestic product	.600	.464			
Market capitalization	.595				
Dividend paid	.588				
Current economic indicators	.585	.457			
Recent price movement in a firms stock	.582	.456			
Risk management of the firm	.529	.410			
Fluctuation in the price index	.519	.421			
Block holding	.517		.505		
Shareholder return	.463		.565		
Sales growth of the firm	.517		.548		
Trusted agents			.528		
Productivity					

Extraction Method: Principal Component Analysis. a. 5 components extracted

The above component matrix table indicates that the relationship between the different factors and their individual values. It is clear that factors have high correlation with same component. For a better interpretation, it is taken further to the next step.



Table 6, Rotated Component Matrix

Variables	Component				
	1	2	3	4	5
Gross domestic product	.767				
Cost and profit efficiency	.758				
Money supply	.747				
Current economic indicators	.744				
Recent price movement in a firms stock	.723				
Corporate governance	.722				
Fluctuation in the price index	.722				
Long term debt to assets	.711				
Short term dept to assets	.707				
Risk management of the firm	.659				
Dividend paid		.819			
Goodwill of the firm		.788			
Past performance		.767			
Composition of board of directors		.761			
Administration of the organization		.760			
Future financial security		.735			
Shareholders of the organization		.687		.428	
Lock in period			.770		
Bonus			.761		
Planning investment			.684		
Degree of transparency		.432	.616		
Corporate strategy			.601		
Ownership structure			.563		
investment in unconsolidated subsidiaries			.561		
Credit rating		.409	.498		
Net property plant and equipment				.821	
Size of business				.820	
Market capitalization				.706	
Productivity				.560	
Sales growth of the firm					.794
Block holding					.761
Shareholder return					.752
Trusted agents					.588

The rotated component matrix shown in table No. 6 is a result of VARIMAX procedure of factor rotation. Interpretation is facilitated by identifying the variables that have large loadings on the same factor. Hence, those factors with high factor loadings in each component i.e. values greater than 0.4 were selected.

Table 7

COMPONENT TRANSFORMATION MATRIX					
Component	1	2	3	4	5
1	.545	.518	.497	.343	.265
2	.731	-.577	-.153	-.241	.224
3	-.298	.092	.184	-.526	.770
4	.280	.608	-.430	-.556	-.241
5	-.023	.142	-.715	.488	.479
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					



The statements 24, 25, 26, 27, 28, 29, 30, 31, 32 and 33 were grouped together as factor 1 and accounted for 41.516% of the total variance and have been named as 'Changeability'. The statements 4, 5, 6, 7, 8, 9, 11, 17 and 18 were grouped together as factor 2 and accounted for 10.965% of the total variance and have been named as 'Symphony'. The statements 2, 3, 15, 16, 17, 18, 19 and 20 were grouped together as factor 3 and accounted for 7.053% of the total variance and have been named as 'Intelligibility'. The statements 1, 11, 12, 13 and 14 were grouped together as factor 4 and accounted for 4.970% of the total variance and have been named as 'Desirable'. On the other hand, the statements 21, 22 and 23 were grouped together as factor 5 and accounted for 3.344% of the total variance and have been named as 'Decisive'. Thus, the factor analysis condensed and simplified the 33 statements and grouped them into 5 factors explaining 67.849% of the variability of all statements.

From the analysis, it is evident that out of 33 statements of factors influencing the decision making on investment in securities of cement industries, 33 statements were grouped into 5 component factors and were termed as changeability, symphony, intelligibility, desirable and decisive which are highly influenced factors generally plays an important role in decision making on investment in securities of cement industries.

Suggestions and Conclusion

The development of cement industry in India has been rapid. The economic growth of a country largely depends upon the growth and developments of its corporate sector especially cement industry. The cement industry is not only an organization for the maximization of shareholder's wealth, but also an administrative and social organization possessing the capacity for initiating its own growth and there by contributing to the economic growth of the country. The investors need to evaluate the investment factors carefully using the reasonable business knowledge on financial performance before making an investment decision. The investors should also be able to interpret the market and economic indicators since they manipulate the performance of the security on the market. Cement industry have to pay attention to financing portion represented by differentiation between different financing sources, and in particular investment debt funds in are turn exceeds capital cost, which leads to increase and improve profitability, which have a positive impact in increasing the company value among the investors. Cement industry should mind that the financial structure as an indicator of investors to predict company future value as an analysis and strategic long-term.

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