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PRIMAX IJCMR VOLUME NO.14, ISSUE NO-3, OCTOBER- DECEMBER, 2026 **Research Article**

FINANCIAL VIABILITY OF THE ULTRA TECH CEMENT COMPANY: AN EMPIRICAL STUDY

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Abstract

This research article has attempted to analysis the Financial Viability of Ultra Tech Cement Company during the period 2016-17 to 2025-26. To analyses the Liquidity, Profitability and short-term and Long-Term Solvency of the Ultra Tech Cement Company in a decade data has been collected from the published annual report. To examine the financial data, two models have been used, Altman's Z Score Model and Dupont Model. To examine the variables, mean, co-efficient variation and CAGR tools have been applied. The model resulted almost same result. during the pandemic period only financially affected. It is concluded that the financial performance of Ultra Tec Cement Company is very strong in financial health. As per the standard norms of the ideal ratio, this company's short-term and long-term solvency position is not commendable, but it has utilized internal funds.

Key words: Liquidity, Profitability, Long-Term Solvency, Altman's Z Score Model and Du Pont Model, ROE, ROCE, Sales Revenue, OPR, CR, DER. and CAGR

Introduction

India is the second-largest cement producer in the world, accounting for over 8% to 11.25% of global capacity and an installed production capacity of roughly 565 to 650 million tonnes per annum (MTPA). Production Volume: Reached 491.4 million MT in FY26 (an 8.6% year-on-year increase); Market Structure: Dominated by the private sector (~98% of capacity). The top 20 companies control about 70% of total production.; Leading Companies: UltraTech Cement is the market leader (with a grey cement capacity exceeding 210 MTPA), followed by major players like Ambuja Cements, ACC, Shree Cement, and Dalmia Bharat. Per Capita Consumption: Estimated around 280–330 kg per year, which remains well below the global average, highlighting significant room for future expansion. Globally India rank 2nd in cement production and consumption, with an installed capacity of 500 MTPA with a production of 298 MTPA. China is the largest cement-producing country which accounts for 57 % of total cement produced worldwide, whereas India produces 7% of total cement produced worldwide. In 2021 worldwide total of 4400 million metric tonnes of cement was

produced. China produced 2500 million tonnes, India produced 298 million tonnes, Vietnam produced 100 million tonnes, and USA produced 92 million tonnes. Though India is the second largest cement producer in the world, its per capita cement consumption is lowest in developing countries which shows that India will see growth in the cement industry. India's per capita cement consumption is 235 Kg which is much lower compared to China and the world with a per capita cement consumption of 1000 Kg and 520 Kg respectively. Limestone is the key raw material for cement manufacturing. India has high quality and quantity of limestone deposits spread across the country. India has a total of 210 large cement plants out of which 77 are in the states of Andhra Pradesh, Rajasthan, and Tamil Nadu. 210 large cement plants account for a cumulative installed capacity of over 410 MT, while over 350 mini cement plants have an estimated production capacity of nearly11.10 MT. Nearly 33% of India's cement production capacity is based in South India, 22% in North India, 13% in Central and West India, and the remaining 19% is based in East India. Reginal distribution of cement: Cement manufacturing is heavily localized near limestone-rich belts: South India: Holds the largest share of installed capacity at roughly 33% to 36.5% (with heavy concentration in states like Andhra Pradesh, Tamil Nadu, and Telangana); North India: Accounts for roughly 20% (anchored by Rajasthan); East India: Accounts for roughly 13% to 18%; West & Central India: Account for the remaining capacity (including key clusters in Madhya Pradesh, Gujarat, and Maharashtra)

Statement of the Problem

The Global cement market size was valued at USD 384 billion in 2025 and is projected to grow from USD 394.82 billion in 2026 to USD 500.3 billion by 2034, exhibiting a CAGR of 3.3% during the forecast period. Asia Pacific dominated the cement market with a market share of 67% in 2025. Cement is an important material used in construction industry which acts as a binder between the surfaces of panels, stones, and bricks. It is generally a fine powdery substance produced using sand, limestone, iron ore, clay, and bauxite. The rising population has increased the need for residential buildings. This has surged the demand for cement manufacturing across the globe. The growing demand for non-residential buildings and public infrastructure, including healthcare centers and hospitals, has led to opportunities for product consumption. Hence, the soaring demand for the product from the growing construction sector is the current market trend. Holcim, Heidelberg Materials, Cemex, UltraTech Cement, and CRH are among the key players operating in the market. To carry out this study financial performance analysis(liquidity, profitability and long-term solvency)

applied two models like Altman's z score model and DuPont model.

Objectives of the study

1. To analyses the liquidity, profitability and long-term solvency of the Ultra Tech Cement Company.

2. To examine the financial performance two models, Altman's Z Score Model and Dupont Model applied.

Research Methodology

Secondary sources have been collected from the published annual reports of The Ultra Tech Cement Company and to carry out the study data has been collected from the Capitoline corporate database from the years 2026-27 to 2025-26. Simple random sampling method has been applied to carry out the study.

Statistical tools used: Measures of central tendency mean, standard deviation co-efficient of variations, Compound Annual Growth Rate has been applied. To test the hypothesis, t-test has been used from the period 2016- 17 to 2025-26.

Testing of hypothesis

Null hypothesis:

1.There is no relationship between Current Ratio and Operating Profit Margin.

2. There is no relationship between Debt Equity Ratio and Return on Capital Employed.

Profile of Ultra Tech Cement

UltraTech Cement Limited is an Indian multinational cement company based in Mumbai. It is the largest manufacturer of grey cement, ready-mix concrete (RMC) and white cement in India, and the fifth largest in the world, with an installed capacity of 152.70 million tonnes per annum and 119 million tonnes per annum sales volume.

UltraTech Cement traces its origins to 1983 when it began as the cement division of Larsen & Toubro (L&T), being sold under the "L&T Cement" brand. In 2000, L&T decided to sell its cement business and incorporated a wholly owned subsidiary to house the cement assets.

In 2001, Reliance Industries sold its entire 10% stake in L&T to Grasim Industries. At the time, L&T was the largest cement manufacturer in India, while Grasim was the third largest In 2002, Grasim would increase its stake in L&T to 15% and its attempt to launch an open offer to acquire an additional 20% stake was stayed by the SEBI over a possible violation of takeover rules.

In 2003, L&T announced that it would demerge the cement business into a company called UltraTech Cem Co. As part of the demerger plan, Grasim agreed to acquire an 8.5% stake in UltraTech Cem Co from L&T, make an open offer to acquire another 30%, and transfer its 15% stake in L&T (residual engineering company) to L&T Employees Welfare Foundation. The deal was executed in 2004, with Grasim obtaining management control of UltraTech Cem Co (later renamed as UltraTech Cement) with its 51% stake, while L&T retained 11.5% shareholding.

Models' framework

1.Altman's Z-Core Model:

Zone	Indicator	Conditions
Green Zone	Safe zone (low risk)	Z>2.99 score above 3.0 indicates the strong financial health and low bankruptcy risk
Gray Zone	Moderate risk	Z= 1.81 to 2.99, it indicates uncertainty. Financial position that requires closer monitoring and caution
Red Zone	Distress Zone(High risk)	Z<1.81 scores below 1.8 signal a high probability of financial distress or bankruptcy.

2. Du Pont Model: DuPont model is developed by E.I. Du Pont de Nemours and co of Wilmington, Delaware, created by the DuPont system of financial analysis in 1919 and firstly it was used by the Dupont Corporations of USA in 1920. Due Pont analysis is also known as DuPont identity. Dupont equation, DuPont model or DuPont method. The DuPont analysis is basically as two tiers i.e., net profits margin and assets turnover.

ROE : (**Net Proft Margin Ratio** : Profit / Sales) x (**Total Assets Turnover Ratio**: Sales/ Investment): NPM- used to find out the operational efficiency of the concern and the overall efficiency of the business can be judged by TATR

CAGR = (Ending Value / Beginning Value) ^(1 / Number of Years) - 1

To calculate CAGR: (i) Identify the initial investment value. (ii) Determine the investment value at the end of the period. (iii)Find the total duration of the investment in years. And (iv)Apply these values in the CAGR formula. In the stock market, CAGR tells investors the year-to-year return of a stock or portfolio over a given number of years. Stock prices fluctuate based on market forces, economic conditions, and corporate performance. By using CAGR, investors can measure how well a stock has done over a few years, considering these fluctuations. It makes it easy to compare stocks and select those with consistent long-term growth.

Review of Literature

Altman l. Edward (1968) was the classical Multiple Discriminate Analysis technique with five financial ratios is used for predicting the risk of failure and developed a model (Z score) to find a bankruptcy prediction model based on a sample composed of 66 manufacturing companies with 33 companies in each of two matched-pair groups (33 publicly-traded manufacturing bankrupt companies between 1946 and 1965 and matched them to 33 firms on a random basis for a stratified sample), which is built out of the five weighted financial ratios.

K. Kannadhasan, (2007), his study titled, Evaluated the Financial Stability and Bankruptcy Risk of Wendt (India) Limited Company over a period from 2001-02 to 2004-05 using Altmaman's Z Score Model. The analysis indicates that the company maintained a consistently strong financial performance and rewaived clear of any financial distress indicators during this time frame.

Selvaraj. V and Rajangam .P (2013), this article aims to assess the Profitability Position of SPBL from the year 2001-02 to 2010-11. To evaluate the profitability of the company, relevant ratios were used and statistical tools like mean, standard deviation, coefficient of variation, minimum, and maximum were applied, and to test the significant relationship between the relevant variables, the variables were tested with the help of correlation and regression analysis (t- test). In hypotheses testing, most of the hypothesis showed a statistically significant relationship between two variables. It was concluded that the overall performance of **Seshasayee Paper & Boards Limited** regarding profitability was sound during the study period,

P.Rajangam & Selvaraj.V (2013) This paper has attempted to study the Financial Health of West Coast Paper Mill Limited. The study unit is situated at Dandeli in Uttar Kannda district of Karnataka state near the banks of River Kali and it is one among the nineteen large-size paper mills in the Indian paper industry. The period of the study covers twelve financial years from 2000-01 to 2011-12. To evaluate the financial health of west coast paper, Altman's Z score model was used. It is observed that the overall financial health of the west coast paper is satisfactory during the study period. Key words: Working Capital, Fixed Assets, Net Sales, EBIT.

P.Rajangam and Subramani. P(2016), this study was basically restricted to companies listed in Bombay Stock Exchange. A random sample of two large size (TNPL) Tamil Nadu Government owned paper manufacture company and private owned (SPBL) paper companies have been taken for the present study. The study has covered a period of ten years from the

financial year 2005-06 to 2014-15. A very high positive correlation between sales and PAT observed in TNPL and negative correlation evidenced in SPBL. The alternative hypothesis is accepted in TNPL. The null hypothesis is accepted in SPBL, which means that there is no relationship between sales and profit after tax. Capacity utilization and production performance is very low in SPBL when compared to TNPL.

Prasanna Chandra (2005), in his titled financial management-theory and practice, pointed out that Dupont Company of US pioneered a system of financial analysis which received widespread recognition and acceptance.

I.M.Pandey (2005) in his book titled, Financial Management, highlighted the Dup Pont Analysis is the important tool of evaluating the firm's earning power of the firm Return On Capital Employed (ROCE) should be computed.

Ahmed Arif Almazari (2012), in his study to access the financial performance of a Jordanian Arab Commercial Bank From 2000 to 2009 using the Du Pont Model of financial analysis, which emphasized on the analysis of ROE and ROI models. The Net Profit Margin, total assets turnover and equity multiplied are the three components of the ROE model. The financial output of Arab Bank was discovered to be relatively stable, with little fluctuations in ROE. From 2001 to 2009, the net profit margin and total turnover remained relatively stable. The equity multiplier also shows that nearly stable measures from 2001 to 2005, with ratios declining from 2006 to 2009 , indicating that the ara bank has had less financial leverage in recent years, implying that it relies less on debt to fund its assets.

Pravin mahamuni and Anand Jumle (2018) in his paper he used to calculate and compare the profitability performance of Indian automobile companies, specified Tata Motors and Mahindra & Mahindra Ltd he applied DuPont Model. He divided a company's ROE into Three components, profit margin(profit/sales), total assets turnover (sales /assets) and Equity multiplier(assets/equity). He concluded that Tata Motors profitability performance is better than Mahindra and Mahindra.

Analysis and Interpretation

Table 1.1 Shows the Sales and Profit Performance of Ultra Tech Cement Ltd

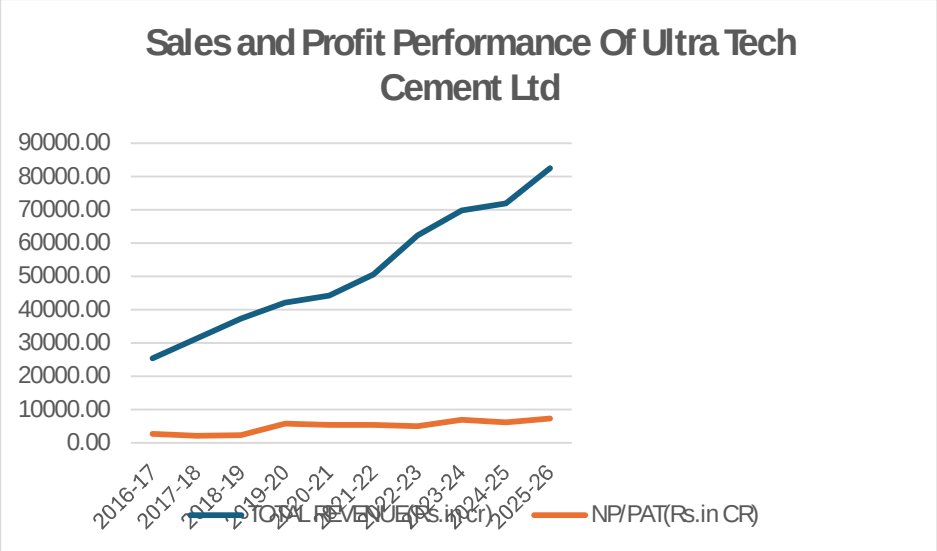
Year	Total Revenue (Rs.in Cr)	OP/EBITDA (Rs.Cr)	NP/PAT (Rs. in Cr)
2016-17	25375.00	5212.00	2715.00
2017-18	31411.00	6145.00	2222.00
2018-19	37379.00	6788.00	2432.00
2019-20	42125.00	9384.00	5815.00
2020-21	44239.00	11568.00	5463.00
2021-22	50663.40	10936.40	5463.00
2022-23	62338.00	11123.00	5064.00
2023-24	69810.00	13586.00	7005.00
2024-25	71894.90	12208.00	6192.60
2025-26	82546.10	17004.00	7405.30
Mean	**51778.14**	**10395.44**	**4977.69**
SD	**18051.47**	**3439.56**	**1784.74**
CV(%)	**34.86**	**33.09**	**35.85**
CAGR(%)	12.52	12.55	

Source: Computed Annual Report of Ultra Tech Cement Ltd.

Table 1.1 Evidenced that the sales and Profit Performance of the Ultra Tech Cement Ltd during the years 2016-17 to 2025-06. Sales revenue ranged between Rs.25375 crore in 2016-17 and Rs.82546.10 crore in 2025-26. The mean sales volume was observed as Rs.51778.14 and the co-efficient of variation 34.86 percent. it implies that the stability in sales volume from the study period. The compound annual growth rate was observed as 12.52 percent. In the yar 2022-23 and 2025-26 attained the above average Rs.62,338 crore and Rs.82,546.10 crore respectively.

Operating profit registered about Rs.10395.44 crores, the second half of the period attained the above average, which implies that operating performance of the Ultra Tech Cement is progressive during the study period. The minimum operating profit was observed as Rs. 5212.00 Crore in 2016-17and maximum of Rs.17,004 crore in 2025-26. The co-efficient variation of Ultra tech cement Ltd was evidenced to be 33.09 percent, which means that the stability in operation profit performance. the CAGR was observed as 12.55 percent. The growth rate performance of the company. Net profit is also called profit after tax, which means that the net performance of Ultra Tech cement, which means that the mean value of Ultra tech cement was observed as Rs.4977.69 crore, except for the first three years of the study period, which means that growth rate and the co-efficient was 35.85 percent, which means that the stability in the net profit of the Ultra tech cement ltd.

Figure 1.1 Sale and Profitability Trend of Ultra Tech Cement Ltd



Source: Computed from 2016-17 to 2025-26

Table 1.2 Shows the Profitability Performance of Ultra Tech Cement Ltd

YEAR	ROE(%)	ROCE(%)	OPM(%)
2016-17	11.45	12.34	20.54
2017-18	8.90	10.20	19.56
2018-19	8.10	9.50	18.16
2019-20	12.21	13.65	22.27
2020-21	12.80	14.80	26.14
2021-22	14.10	15.30	21.58
2022-23	9.45	11.60	17.84
2023-24	10.35	12.80	19.46
2024-25	8.54	10.90	16.98
2025-26	10.66	12.05	20.60
MEAN	**10.656**	**12.314**	**20.313**
SD	**1.87**	**1.79**	**2.50**
CV(%)	**17.59**	**14.55**	**12.32**
ROCE	**7.35**	**8.79**	**14.23**

Source: Computed Annual Report of Ultra Tech Cement Ltd.

Table 1.2 implies that Profitability performance of Ultra Tech Cement Ltd, Return On Equity Performance fluctuated during the perio2016-17 to 2025-26. The average Return on Equity (ROE) was observed as Rs.10.66 percent. The co-efficient variation was Rs.17.59. The Compounded Annual Growth Rate (CAGR) was registered as 7.35 percent.

The ROCE, which means that the overall profitability of Ultra tech cement company. The average ROCE registered as 10.66 percent. The average ROCE ranged between 9.50 percent

and 15.30 percent, in 2018-19 and 2021 -22 respectively. the over profitability fluctuated during the study period from 2016-17 to 2025-26. The CAGR was observed as 8.79 perce3nt and the standard deviation was 1.79 percent. The co-efficient variation was evidenced as 14.55 percent, which implies that stability of Ultra Tech cement company. Operating profit margin, mean value of operating margin, was evidenced to be 20.31 percent and its operating profit performance was volatile. The operating performance of ultra tech ranged between 16.98 percent and 26.14 percent respectively in 2025-26 and 20220-21. The co-efficient of variation was observed as 12.32 percent, which implies that the stability in operating profit margin.

Table 1.3 Short- and Long-Term Solvency Position of Ultra Tech Cement Ltd

YEAR	CR(Times)	QR(Times)	DER (Times)
2016-17	1.02	0.71	0.28
2017-18	0.90	0.59	0.61
2018-19	0.88	0.58	0.69
2019-20	0.91	0.64	0.58
2020-21	0.94	0.68	0.43
2021-22	0.87	0.59	0.24
2022-23	0.88	0.60	0.18
2023-24	0.86	0.55	0.22
2024-25	0.73	0.43	0.33
2025-26	0.74	0.46	0.30
MEAN	**0.873**	**0.583**	**0.386**
SD	**0.08**	**0.08**	**0.17**
CV(%)	**9.35**	**14.23**	**44.51**

Source: Computed Annual Report of Ultra Tech Cement Ltd.

Table 1.3 Short -term and long-term solvency position of the Ultra Tech Cement Ltd, current ratio means it fulfils the current obligations of any business. The average current ratio of Ultra tech cement ltd was 0.87 times. It ranged between 0.73 times in 2024 -25. the maximum of 1.02 times in 2016-17. The current ratio position of Ultra tech cement was below the standard norms of 2:1. Which implies that ultra tech cement company position is not commendable.

The average quick ratio position of the Ultra Tech cement company was observed as 0.58 times, it is blowing the ideal ratio of 1:1, which means that this company utilized the internal capital to run the business, and which means that shareholders wealth was created.

Debt equity ratio standard norms are 2:1, but the average DER was observed as 0.39 times, which means that Ultra Tech Cement Ltd utilized only internal equities than external equities

which means that healthy capital flow in the company. The co-efficient variation shows 44.51 percent.

Table 1.4.Altman's Z- Score and DuPont Model Trend of Ultra Tech Cement Ltd

Years	Z Score Trends	Du Pont Trend (ROE)
2016-17	5.77	11.12
2017-18	3.67	8.43
2018-19	**2.86**	**8.46**
2019-20	2.89	14.73
2020-21	4.42	12.36
2021-22	5.22	14.54
2022-23	5.35	9.33
2023-24	6.00	11.59
2024-25	4.86	8.56
2025-26	4.74	10.71
Mean	**4.58**	**10.98**

Table 1.4, The Average Z-Score was evidenced as 4.58, which means that that it is in the green zone and the Ultra etch cement company performance is commendable. The year 2019 and 2020 the z scores were observed as 2.86 and 2.86 respectively, which means that this two-year performance was observed as grey zone, which implies that financial position is uncertain. All other periods attained the green zone that means financial position was very strong and it leads to profitability. Due to the covid-19 pandemic period 2018-2019(2.86) and 2019-2020 (2.89) company faced financial Discrepancy.

The Dupont model explains the higher the percentage of ROE higher the profitability. The average ROE performance of Ultra Tech Cement company, the average ROE decade Mean performance observed as 10.98. which is higher except for 2018-2019(8.46%) and 2017-18 (8.43%) . This model also almost explained the same result. Hence, it is proved that both Altman's Z Score model and Dupont model results are almost same.

Testing of Hypothesis

An Independent samples T-test is used when we need to compare the statistical means of two independent samples or groups.

1.It helps us determine whether there is a significant difference between the means of the two groups.

2.If there is a significant difference, it suggests that the groups likely have different population means; otherwise, they have the same population means.

One-Sample T-Test

$$t = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}}$$

$\bar{x}$ = observed mean of the sample
μ = assumed mean
s = standard deviation
n = sample size

Two-Sample T-Test

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

$\bar{x}_1$ = observed mean of 1st sample
$\bar{x}_2$ = observed mean of 2nd sample
s_1 = standard deviation of 1st sample
s_2 = standard deviation of 2nd sample
n_1 = sample size of 1st sample
n_2 = sample size of 2nd sample

T-test Significant 5% Independent Sample Test degrees of freedom=N_1+N_2= N-2 = 2.10

H_O:1			H_O:2		
Mean $\mathbf{X}_1$	20.9	CR	Mean $\mathbf{X}_1$	0.39	DER
Mean X_2	5.6	OPM	Mean X_2	-10.66	ROCE
N_1	10		N_1	10	
N_2	10		N_2	10	
V_1	S_1	9.35	V_1	S_1	44.51
V_2	S_2	12.32	V_2	S_2	14.55

1.Ho: There is no relationship between current ratio and operating profit

The calculated value of current ratio and operating profit margin t-test value = -1.32065,

The table value observed as 2.10, calculated value is less than the table value. hence, Ho is accepted which means that there is no relationship between CR and OPM @5% significant level.

2.Ho: There is no relationship between Debt -equity ratio and ROEC.

The calculated value of Debt -Equity Ratio and ROCE is t-test value = -0.423

The table value observed as 2.10, calculated value is less than the table value. hence, Ho is accepted which implies that there is no relationship between DER and ROCE @5% significant level.

Conclusion

The Financial viability of the Ultra Tech cement company is very strong. As per the ideal ratio norms, Shor-term solvency and long-term solvency position is not commendable. But this cement company has utilized internal fund, and it is not given priority to the external equities. It is concluded that the financial performance of Ultra Tec Cement Company is very strong in financial health. Two financial models have been utilized for financial analysis, and the Z-Score model resulted in good financial health throughout the study period except 2018. Du Pont Model, ROE also resulted almost the same result. In total financial performance of the Ultra Tech Cement company's financial position is exemplary.

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