

## **Research Project**

### **Semester-IV**

<b>Name</b>	Mohamed Faruq H Shaikh
<b>USN</b>	232VMBR04232
<b>Elective</b>	Finance
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## **A study on the Security Analysis of JK Cement Limited**

Research Project submitted to Jain Online (Deemed-to-be University)

In partial fulfillment of the requirements for the award of

### **Master of Business Administration**

Submitted by

**Mohamed Faruq H Shaikh**

USN

232VMBR04232

Under the  
guidance of

Prof.Komal

## DECLARATION

I, *Mohamed Faruq H Shaikh* hereby declare that the Research Project Report titled “*A study on the Security Analysis of JK Cement Limited* ” has been prepared by me under the guidance of *Prof. Komal*. I declare that this Project work is towards the partial fulfillment of the University Regulations for the award of degree of Master of Business Administration by Jain University, Bengaluru. I have undergone a project for a period of Eight Weeks. I further declare that this Project is based on the original study undertaken by me and has not been submitted for the award of any degree/diploma from any other University / Institution.

Place: Bengaluru

Date: 14/10/2025

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*Mohamed Faruq H Shaikh*  
USN:232VMBR04232

## CERTIFICATE

This is to certify that the Research Project report submitted by Mr. Mohamed Faruq H Shaikh bearing 23VMBR04232 on the title *A study on the Security Analysis of JK Cement Limited* is a record of project work done by him during the academic year 2023-24 under my guidance and supervision in partial fulfilment of Master of Business Administration.

Place: Bengaluru

Date: 14/10/2025

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*Prof. Komal*

## ACKNOWLEDGEMENT

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*Mohamed Faruq H Shaikh*  
*USN:232VMBR04232*

## **EXECUTIVE SUMMARY**

This research project conducts a comprehensive security analysis of JK Cement Limited, a prominent player in India's cement industry. The study encompasses an economic analysis of India, an industry analysis of the cement sector, a peer group comparison, and a detailed company analysis, including financial and stock performance metrics. India's economy, the second-largest in South Asia, is driven by agriculture and services, with a growing demographic dividend and increasing literacy rates. However, challenges like trade deficits and an aging population persist. The cement industry, valued at ₹1.2 trillion in FY 2023, is poised for growth due to government infrastructure initiatives. JK Cement Limited, with a capacity of over 14 million tons per annum, is a key contributor, known for its grey and white cement products. The study evaluates JK Cement's financial health through ratios like current ratio (1.34:1), debt-equity ratio (1.66:1), and return on equity (16

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# **CHAPTER 1**

## **INTRODUCTION AND BACKGROUND**

## INTRODUCTION AND BACKGROUND

### 1.1 Purpose of the Study

The purpose of the study, as outlined in the project report on the "Security Analysis of JK Cement Limited," is to conduct a comprehensive evaluation of JK Cement Limited's financial and operational performance within the context of the Indian cement industry and the broader economic environment. The study aims to analyze the company's stock performance, financial stability, and market position through a detailed examination of key financial ratios, risk metrics, and industry trends.

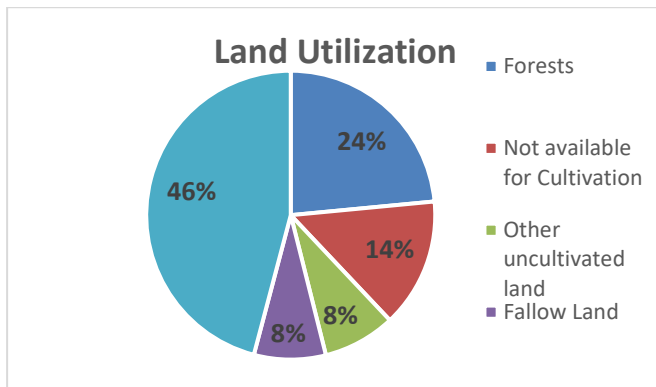
By assessing parameters such as alpha, beta, standard deviation, and variance, alongside fundamental financial indicators like liquidity, leverage, profitability, and valuation ratios, the study seeks to provide insights into JK Cement's investment potential and operational efficiency. Additionally, it aims to contextualize the company's performance against its peer group and the macroeconomic factors influencing the cement sector, such as infrastructure development, government policies, and environmental sustainability initiatives. The analysis also explores India's economic landscape, including demographic trends, literacy rates, employment patterns, and trade dynamics, to understand the broader forces shaping JK Cement's operational environment. Ultimately, the study intends to offer a balanced perspective on JK Cement's strengths, risks, and growth prospects, providing valuable insights for investors, stakeholders, and policymakers interested in the cement industry's role in India's economic growth.

### 1.2 Introduction to the Topic

The introduction to the topic of the project report, "Security Analysis of JK Cement Limited," establishes a comprehensive framework for understanding the interplay between India's macroeconomic environment, the cement industry's critical role in economic development, and the specific performance of JK Cement Limited within this context. India, as the second-largest growing economy in South Asia and the world's most populous nation with over 139 crore people as of 2023-24, spans a vast geographical area of 32,87,260 square kilometers, with 90% land and 10% water, supporting diverse economic activities.

The economy, traditionally anchored by agriculture and increasingly driven by the service sector, operates as a mixed model where public and private enterprises coexist, fostering competition and enabling the government to pursue welfare goals through public sector undertakings. The demographic dividend, with 65% of the population in the working-age group of 15-59 years (approximately 91 crore people), provides a robust human capital base, though challenges like an aging population (mean age rising from 24.9 in 2021 to 29 in 2023-24) and a declining birth rate signal the need for long-term planning. Literacy rates, at 80.9% for those aged 7 and above, reflect educational progress, yet disparities between urban (higher literacy) and rural areas, as well as between genders (87.2% male vs. 74.6% female), underscore the need for targeted interventions to enhance workforce skills, particularly for the service sector. Employment trends highlight a reliance on the primary sector (agriculture) in rural areas and the tertiary sector (services) in urban centers, with limited participation in the secondary sector (industry), indicating an economic shift toward services but also a need to bolster industrial growth to reduce seasonal vulnerabilities and address global challenges like climate change. The cement industry, a

cornerstone of India's infrastructure development, is pivotal to economic growth, contributing significantly to GDP and employment. Valued at ₹1.2 lakh crore in FY 2023, the sector is projected to grow to ₹2 lakh crore by 2030, fueled by government initiatives such as the Pradhan Mantri Awas Yojana, Smart Cities Mission, and Bharatmala and Sagarmala projects, alongside rising demand from residential, commercial, and rural infrastructure. The industry is also embracing technological advancements like automation, energy-efficient processes, and sustainable practices to address challenges such as high fuel costs and environmental regulations. Within this dynamic landscape, JK Cement Limited, a leading player established in 1975, is analyzed to assess its financial health, stock performance, and market positioning. Through a detailed examination of risk metrics (alpha, beta, standard deviation, variance) and fundamental financial ratios (liquidity, leverage, profitability, valuation), the study evaluates JK Cement's operational efficiency, investment potential, and competitive standing relative to peers like UltraTech Cement and Shree Cement. By contextualizing JK Cement's performance within India's broader economic and industrial trends, the introduction sets the stage for a thorough security analysis, aiming to provide actionable insights for investors, stakeholders, and policymakers on the company's role in supporting India's trajectory toward becoming a \$5 trillion economy.



### 1.3 Overview of Theoretical Concepts

The security analysis of JK Cement Limited is grounded in financial, economic, and investment theories that provide a structured framework for evaluating the company's performance, risk, and investment potential within the Indian economy and cement industry.

#### 1. Macroeconomic Analysis

The study leverages economic theories to analyze India's macroeconomic environment, focusing on indicators like GDP, population, literacy, employment, and trade balances. The demographic dividend theory highlights the role of India's youthful workforce in driving growth, while economic development and structural transformation theories explain the shift from agriculture to services. The inflation targeting framework and international finance theories underpin the analysis of foreign exchange reserves and public distribution systems, emphasizing economic stability and policy interventions.

#### 2. Industry Analysis

Implicitly applying Porter's Five Forces, the cement industry analysis examines competitive dynamics, with high buyer power (government projects) and moderate supplier power due to raw material dependency. The industry life cycle theory positions the sector in a growth phase, driven by infrastructure projects. The resource-based view highlights firms' use of technology and sustainability (e.g., waste heat recovery) for competitive advantage.

#### 3. Financial Risk Assessment

Grounded in Modern Portfolio Theory (MPT) and the Capital Asset Pricing Model (CAPM), the study calculates risk metrics like beta (0.7430, lower market volatility), alpha (0.0917%, slight outperformance), standard deviation (2.0117%, moderate volatility), and variance (4.0471), assessing JK Cement's risk-return profile for portfolio diversification.

#### 4. **Fundamental Analysis**

Financial ratio analysis evaluates liquidity (current ratio: 1.34, quick ratio: 0.99, cash ratio: 0.26), solvency (debt ratio: 63%, debt-to-equity: 1.66, proprietary ratio: 0.37), and profitability (net profit ratio: 8%, ROA: 6%, ROE: 16%). These draw on working capital management, capital structure theory (trade-off between debt and equity), and profitability analysis. Valuation ratios (P/E: 45.95, P/B: 7.13, EPS: ₹107.5, BVPS: ₹692.83) align with equity valuation models, reflecting market expectations of growth.

#### 5. **Investment Decision Frameworks**

The analysis incorporates value and growth investing principles, with JK Cement's high P/E and P/B ratios indicating growth potential. The efficient market hypothesis suggests market pricing reflects available information, while the takeover standpoint aligns with merger and acquisition theories.

#### 6. **Sustainability**

Stakeholder theory and sustainability frameworks underpin the focus on environmental initiatives (e.g., renewable energy, carbon capture), balancing profitability with regulatory and social responsibilities.

### 1.4 Company/ Domain / Vertical /Industry Overview

The Indian cement industry, a key vertical in construction and infrastructure, drives economic growth, contributing to GDP and employment. As the world's second-largest cement producer, India's market, valued at ₹1.2 lakh crore in FY 2023 (380 million tonnes), is projected to reach ₹2 lakh crore by 2030, fueled by PMAY, Smart Cities Mission, Bharatmala, Sagarmala, and residential/commercial demand. Key players include UltraTech Cement, ACC, Shree Cement, Dalmia Bharat, Ambuja Cements, and JK Cement Limited.

This capital-intensive sector faces high entry barriers, fuel costs, and regulations but adopts automation, waste heat recovery, and carbon capture for sustainability. **JK Cement Limited**, founded in 1975 in Kanpur, Uttar Pradesh, produces grey cement, white cement, and wall putty, with over 14 million tonnes capacity. Operating plants in Rajasthan, Uttar Pradesh, Karnataka, and grinding units, it is led by Mr. Raghunath Pratap Singh. Financials show moderate liquidity (current ratio: 1.34), high leverage (debt-to-equity: 1.66), strong profitability (ROE: 16%, EPS: ₹107.5), and premium valuation (P/E: 45.95, P/B: 7.13), with moderate risk (beta: 0.7430, standard deviation: 2.0117%).

The cement industry supports India's \$5 trillion economy goal, with JK Cement contributing through sustainability and innovation, despite challenges like debt and inefficiencies.

### 1.5 Environmental Analysis (PESTEL Analysis)

## **CHAPTER 2**

# **REVIEW OF LITERATURE**

## REVIEW OF LITERATURE

**2.1** The labor force participation rate in India for both Primary Sector and Secondary sector is at 45.1%. Among which urban male and female participation stands at 59% and 22.3% respectively, and rural male and female participation stands at 57.9% and 35.5%. The participation of male and female rural pollution in Tertiary Sector is 22.8% and 11.2% and participation of male and female urban 60.3% and 60.8% respectively.

In Percentage	Urban			Rural		
Sector Gender	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
Male	4.7	35	60.3	49.1	28.1	22.8
Female	11.7	27.6	60.8	76.2	12.7	11.2

Analysis:

The Indian Labour participation is varied across sectors with more labour employment in Tertiary (Service) sector among urban population and Primary Sector like agricultural employing more rural population. There lesser employment in Secondary sectors like industries, these trends show the greater reliance of economy on the primary and tertiary sector, and limited reliance on secondary sector. This trend shows the movement of Indian economy towards service dependency from primary sector. The lower employment opportunity on the middle sector also known as industrial sector reduces the output produced from this sector. India needs to ramp up the secondary sector employment to reduce the burden of primary sector which is vary seasonal and subject to changes due to global warming.

## 2.2 Peer Group Analysis

### 1. Based on sales: (in Rs.)

Company	Sales in Cr.	Percentage
Ultratech Cement Limited	₹ 68,640.63	49.48%
Ambuja Cements	₹ 17,919.34	12.92%
JK Cements	₹ 10,918.05	7.87%
Shree Cements	₹ 19,585.53	14.12%
ACC Ltd.	₹ 21,668.11	15.62%

The market leader in terms of sales is Ultratech Cement

The total sales made by market leaders is = ₹ 1,38,731.66 Crores

Analysis:

The average sales in the cement market in India is 27,746.33 Crores, the only company Ultratech Cement Limited surpasses the averages and bags a share of 49.48% of overall sales in the industry indicating that the firm is performing well compared to peers.

## 2. Based on Net Profit

Company	Net Profit in Cr.	Percentage of Net Profit
Ultratech Cement Limited	₹ 6,904.87	47.09%
Ambuja Cements	₹ 2,334.69	15.92%
JK Cements	₹ 830.64	5.66%
Shree Cements	₹ 2,468.44	16.83%
ACC Ltd.	₹ 2,124.24	14.49%

The market leader in terms of Net Profit is Ultratech Cements

The total net profit made by market leaders is ₹ 14,662.88 Crores

Analysis:

The average net profit in the cement market in India is ₹ ₹ 2,932.58 Crores, all the market leaders except JK Cements are nearer to the average Net profit levels. The scenario of JK Cements shows that firm is under performing compared to peers, the firm needs to reduce its costs to increase level of net profit.

## 3. Based on EPS

Company	EPS	Percentage
Ultratech Cement Limited	₹ 239.18	21.06%
Ambuja Cements	₹ 11.74	1.03%
JK Cements	₹ 107.50	9.47%
Shree Cements	₹ 663.98	58.47%
ACC Ltd.	₹ 113.12	9.96%

The EPS of Shree Cements is highest in the industry among peers.

The total EPS of market leaders is ₹ 1135.52

Analysis:

The average Earning Per Share is ₹ 227.104 in the industry, the EPS of Shree Cements is highest in the industry with 58.47% of the entire peer group sum making it most attractive to the investors. And the EPS of the Ambuja Cements is lowest in the industry making it less attract for investors.

#### 4. Based on PE (Price-to- Earnings Ratio):

Company	PE Ratio	Percentage
Ultratech Cement Limited	47.56	23.63%
Ambuja Cements	45.09	22.40%
JK Cements	45.95	22.83%
Shree Cements	45.45	22.58%
ACC Ltd.	17.25	8.57%

Table 1: PE Ratio as of 01-April-2025

The PE ratio of Ultratech Cement Ltd. is highest among the peers.

Analysis:

The average PE ratio is 40.26 indicating that the investors on an average are willing to spend ₹ 40.26 to earn ₹1 from the stock making this industry one of the prime interests of the investors as they are willing to pay high. The PE ratio of Ultratech in highest among the peer making it a most costly asset among the peers which might due to increased demand for the asset compared to peers.

#### 5. Based on Revenue from Operations

Company	Revenue from Operations in Cr.	Percentage	Net Profit Percentage
Ultratech Cement Limited	₹ 67,535.73	50.19%	10.22%
Ambuja Cements	₹ 17,675.63	13.14%	13.21%
JK Cements	₹ 10,563.16	7.85%	7.86%
Shree Cements	₹ 19,207.86	14.28%	12.85%
ACC Ltd.	₹ 19,571.00	14.55%	10.85%



The Revenue from Operations of Ultratech Cements Ltd. is highest among the peers  
Analysis:

The average Revenue from Operations is ₹ 26,910.68 indicating that the high revenue in the market. The Revenue from Operations of Ultratech is highest among the peer with 50.19% but its net profit is less compared to peers' profit to revenue percentage indicating that the cost of sale goods is highest for the Ultratech due to its huge market share and operations cost to maintain that share.

a. Public Distribution System

Procurement: 266.1 lakh tonnes

Off take: 159.8 lakh tonnes

Stocks: 729.2 lakh tonnes

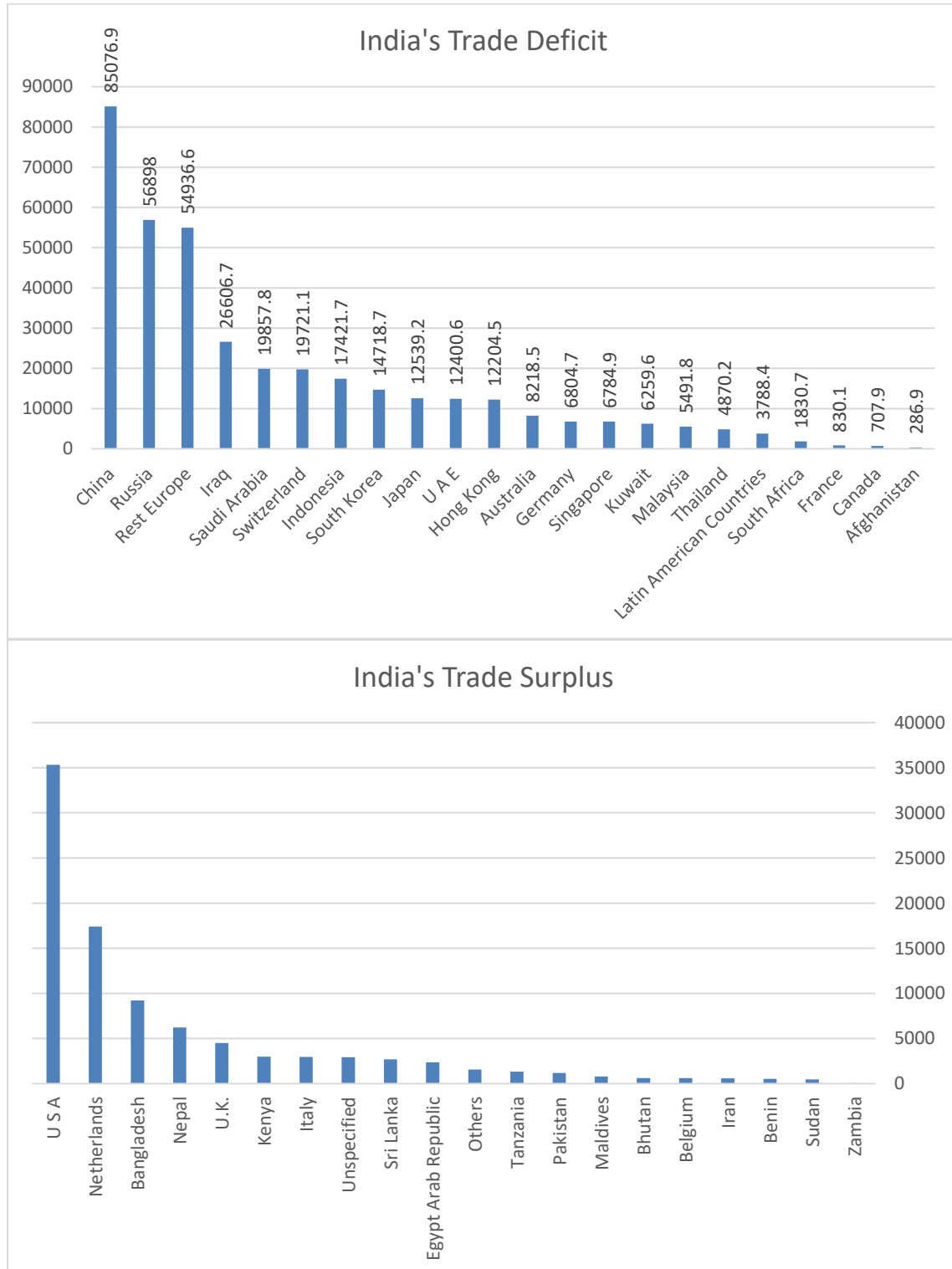
Year	Procurement	Off Take	Stock	Percentage of Stock Purchased
20-21	990.6	937.0	779.3	40.43%
21-22	1026.2	1058.0	745.2	35.75%
22-23	757.4	931.5	521.6	30.88%
23-24	786.6	676.9	610.3	41.70%
24-25	266.1	159.8	729.2	<b>171.21%</b>

Analysis:

Indian PDS system is one of the measures utilized by GoI to provide Food Security in terms of Rice and Wheat. Central Governments' procurement of materials from Farmers has been reducing for 5 years due to increased efficiency in storage of the stock which has increased from 40.43% to 171.21% from 2020-21 to 2024-25. Which is result of decreased PDS leakage due to digitization, transparency, and efficient distribution mechanisms being utilized since 2013 making sure that the PDS benefits reach only those who need it. This also improves the capacity of food security to reach a larger and intended population.

b. Export and Import (EXIM) of Major Commodities

Year	Imports (IM)	Exports (EX)	Deficit (IM - EX)
2019-20	474709.3	313361.0	161348.3
2020-21	394435.9	291808.5	102627.4
2021-22	613052.1	422004.4	191047.7
2022-23	715968.9	451070.0	264898.9
2023-24	678214.8	437072.0	241142.8



#### Analysis:

Exports over the year have increased from by 39.48 % in past 5 years where as imports have increased by 42.87% in past 5 years. The Trade deficit has increased by 49.45%. This trend indicates that India's dependance on import has increased the trade deficit which is largest with China \$ 85,076.9 million and smallest with Afghanistan \$ 286.9 million. The largest trade surplus is with USA of \$35,319.5 million and smallest with Zambia of \$ 40.2 million. This trade surplus is only marginal compared to the trade deficit created in past years. Resulting in India being considered as Import based economy.

## **CHAPTER 3**

# **RESEARCH METHODOLOGY**

## RESEARCH METHODOLOGY

### 3.1 Objectives of the Study

The primary objective is to evaluate JK Cement Limited's financial performance, risk profile, and investment potential within the Indian cement industry and economic context. The study assesses stock performance using risk metrics (alpha, beta, standard deviation, variance) and financial health through ratios (liquidity, leverage, profitability, valuation), benchmarking JK Cement against peers like UltraTech Cement. It examines macroeconomic factors (population, infrastructure, policies) to provide insights for investors, stakeholders, and policymakers on JK Cement's role in India's growth.

### 3.2 Scope of the Study

The study focuses on JK Cement's financial performance (FY 2023-24) and stock data (2024-25), covering the Indian cement industry's market size, growth drivers, and competition. It analyzes macroeconomic factors like population, literacy, and trade, using peer comparisons (UltraTech, ACC, etc.) for context. The scope is limited to publicly available data, emphasizing domestic operations with references to global presence.

### 3.3 Methodology

**3.3.1 Research Design:** The study employs a descriptive and analytical design, combining qualitative insights (company profile, industry trends) with quantitative analysis (risk metrics, financial ratios). A case-study approach focuses on JK Cement, with peer comparisons to assess market position and investment viability.

**3.3.2 Data Collection:** The study relies on secondary data collected from credible sources, including the Handbook of Statistics on the Indian Economy (2023-24), World Bank reports (2025), LAND USE STATISTICS AT A GLANCE (2022-23), National Sample Survey Office (2024), and SBI Group (2024) for macroeconomic data. Industry-specific data is sourced from reports on the Indian cement sector, while company-specific data, including JK Cement's standalone balance sheet and profit & loss statement as of March 31, 2024, is obtained from company financial reports and stock market data. Peer group data for UltraTech, ACC, Shree Cement, Dalmia Bharat, and Ambuja Cements is also collected from publicly available financial statements and industry analyses.

**3.3.3 Sampling Method:** Sampling is not directly applicable, as the study focuses on JK Cement. A purposive selection of peers (UltraTech, ACC, Shree Cement, Dalmia Bharat, Ambuja) is used for comparison, chosen for their market leadership.

**3.3.4 Data Analysis Tools:** Risk metrics (alpha, beta, standard deviation, variance) are calculated using stock data and portfolio theory formulas. Financial ratios (current, quick, debt, ROA, ROE, P/E, etc.) are computed from financial statements. Spreadsheets facilitate calculations, while qualitative analysis interprets industry and economic trends.

**3.4 Period of Study:** The study covers the financial year 2023-24 for JK Cement's financial statements (as of March 31, 2024) and includes stock data for FY 2024-25. Macroeconomic data spans 2022-24, with projections for inflation extending to Q4 2025-26. Industry data focuses on FY 2023, with growth projections up to 2030. The analysis incorporates historical trends (e.g., five-year export/import data) to provide context, ensuring a comprehensive evaluation within a defined timeframe.

**3.5 Limitations of the Study:** The study is constrained by its reliance on secondary data, which may be subject to inaccuracies or incomplete disclosures in company reports or public sources. The analysis is limited to FY 2023-24 financials and 2024-25 stock data, potentially missing recent market developments. The focus on JK Cement and select peers may overlook smaller competitors or emerging trends. Macroeconomic data, while comprehensive, may not fully capture regional variations affecting the cement industry. Additionally, the study does not account for qualitative factors like management decisions or market sentiment, which could influence JK Cement's performance.

**3.6 Utility of Research:** The research provides valuable insights for investors seeking to evaluate JK Cement Limited as an investment opportunity, offering a clear understanding of its risk-return profile, financial health, and competitive positioning. Stakeholders, including company management, can use the findings to identify areas for improvement, such as reducing debt reliance or enhancing asset utilization. Policymakers may leverage the study to assess the cement industry's role in India's infrastructure development and economic growth. The analysis also benefits academics and industry analysts by contributing to the body of knowledge on security analysis within the Indian cement sector, supporting informed decision-making and strategic planning.

## **CHAPTER 4**

# **DATA ANALYSIS AND INTERPRETATION**

## **DATA ANALYSIS AND INTERPRETATION**

### **Company Analysis**

#### **Introduction To JK Cement Limited:**



#### **JK Cement**

JK Cement Limited, a member of the illustrious JK Organization, was incorporated in 1975 in India and is a leading producer of grey and white cement in India. With its headquarters in Kanpur, Uttar Pradesh, JK Cement has established itself as a reliable and consistent provider of quality cement products to the Indian market, emerging as a key player in the Indian cement sector.

The organization started off by manufacturing grey cement and later diversified its product offerings to include a wide range of specialty cement products such as Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), and blended cement. JK Cement also manufactures white cement and wall putty under its brand name "JK White Cement," which is very well known for its high quality and application in a wide range of decorative and aesthetic purposes.

JK Cement has a large network of manufacturing units throughout India, comprising integrated cement plants in Rajasthan, Uttar Pradesh, and Karnataka and grinding units in various states. The total installed capacity of the company is well over 14 million tons per annum and is ranked among the largest cement producers in the nation. JK Cement also has a reputation for dedication to sustainable development and environmental conservation through the implementation of the newest technology and methodologies that minimize its footprint on the environment.

With Mr. Raghunath Pratap Singh (Managing Director) at the helm, JK Cement has strengthened its presence in both domestic and global markets. The company's strong brand image, product development innovation, and cost-effective manufacturing processes have enabled it to record substantial growth over the past few years. JK Cement has gained the confidence of diverse customers such as large infrastructure developers, contractors, and individual house builders for its consistent quality products and timely delivery.

#### 4.1 2024-25 FY JK Cements Stock Data

Date	Close Price	JK Cements (y)	$y-\bar{y}$	$(y-\bar{y})^2$	Market Return (x)	$x^2$	xy	$y^2$
01-Apr-24	4276.75	4.903295436	4.748571529	22.54893	0.493134206	0.243181	2.417983	24.04231
02-Apr-24	4327.75	1.192494301	1.037770394	1.076967	0.149484122	0.022346	-0.17826	1.422043
03-Apr-24	4335.1	0.169834209	0.015110302	0.000228	0.036655706	0.001344	-0.00623	0.028844
04-Apr-24	4353.3	0.419828839	0.265104932	0.070281	0.474858014	0.22549	0.199359	0.176256
05-Apr-24	4356.6	0.075804562	0.078919345	0.006228	0.027738997	0.000769	0.002103	0.005746
08-Apr-24	4388.4	0.729927007	0.5752031	0.330859	0.665712929	0.443174	0.485922	0.532793
09-Apr-24	4320.4	1.549539696	1.704263603	2.904514	0.078670101	0.006189	0.121902	2.401073
10-Apr-24	4322.3	0.043977409	0.110746497	0.012265	0.474601553	0.225247	0.020872	0.001934
12-Apr-24	4277.2	1.043425954	1.198149861	1.435563	-1.05712894	1.117522	1.103036	1.088738
15-Apr-24	4230.85	1.083652857	1.238376764	1.533577	-1.13828694	1.295697	1.233508	1.174304
16-Apr-24	4204.8	0.615715518	0.770439425	0.593577	0.621391508	0.386127	0.3826	0.379106
18-Apr-24	4116.7	2.095224505	2.249948412	5.062268	0.623343928	0.388558	1.306045	4.389966
19-Apr-24	4154.25	0.912138363	0.757414456	0.573677	0.826801422	0.683601	0.754157	0.831996
22-Apr-24	4073.2	1.951014022	2.105737929	4.434132	0.76659297	0.587665	-1.49563	3.806456
23-Apr-24	4144.05	1.739418639	1.584694732	2.511257	0.121971057	0.014877	0.212159	3.025577
24-Apr-24	4173.45	0.709450899	0.554726993	0.307722	0.155264994	0.024107	0.110153	0.503321
25-Apr-24	4029.25	3.455174975	3.609898882	13.03137	0.658741548	0.43394	-2.27607	11.93823
26-Apr-24	4063.8	0.85747968	0.702755773	0.493866	0.819591861	0.671731	-0.70278	0.735271
29-Apr-24	4067.05	0.079974408	0.074749499	0.005587	1.276438299	1.629295	0.102082	0.006396
30-Apr-24	3990.8	1.874823275	2.029547182	4.119062	-0.25243976	0.063726	0.47328	3.514962
02-May-24	3929.3	1.541044402	1.695768309	2.87563	0.172294858	0.029686	-0.26551	2.374818
03-May-24	3993.35	1.630061334	1.475337427	2.176621	0.982373805	0.965058	-1.60133	2.6571
06-May-24	4000.25	0.172787259	0.018063352	0.000326	0.023538759	0.000554	0.004067	0.029855



07-May-24	3906.15	2.352352978	2.507076885	6.285435	-0.51923296	0.269603	1.221419	5.533565
08-May-24	3946.55	1.034266477	0.87954257	0.773595	-0.06184037	0.003824	-0.06396	1.069707
09-May-24	3875.6	1.797772738	1.952496645	3.812243	1.445858439	2.090507	2.599325	3.231987
10-May-24	3835.85	1.025647642	1.180371549	1.393277	0.35950968	0.129247	-0.36873	1.051953
13-May-24	3934.65	2.575700301	2.420976394	5.861127	0.153665196	0.023613	0.395795	6.634232
14-May-24	3917.05	0.447307893	-0.6020318	0.362442	0.451356784	0.203723	-0.2019	0.200084
15-May-24	3890.8	0.670147177	0.824871084	0.680412	-0.16083801	0.025869	0.107785	0.449097
16-May-24	3849.85	-1.05248278	1.207206687	1.457348	0.927137328	0.859584	-0.9758	1.10772
17-May-24	3906.1	1.461095887	1.30637198	1.706608	0.343873483	0.118249	0.502432	2.134801
18-May-24	3900	0.156165997	0.310889904	0.096653	0.120283512	0.014468	-0.01878	0.024388
21-May-24	3892.05	0.203846154	0.358570061	0.128572	0.071115913	0.005057	0.014497	0.041553
22-May-24	3964.95	1.873048907	1.718325	2.952641	0.36205276	0.131082	0.678143	3.508312
23-May-24	3966.9	0.049180948	0.105542959	0.011139	1.612722858	2.600875	0.079315	0.002419
24-May-24	3990.75	0.601225138	0.446501231	0.199363	0.010143462	0.000103	-0.0061	0.361472
27-May-24	3991.4	0.016287665	0.138436242	0.019165	0.026375676	0.000696	-0.00043	0.000265
28-May-24	3990.25	0.028811946	0.183535853	0.033685	0.291880277	0.085194	0.00841	0.00083
29-May-24	3921.7	1.717937473	-1.87266138	3.506861	0.888048429	0.78863	1.525612	2.951309
30-May-24	3885.5	0.923069077	1.077792984	1.161638	0.828558351	0.686509	0.764817	0.852057
31-May-24	3876.15	-0.24063827	0.395362177	0.156311	0.102469223	0.0105	-0.02466	0.057907
03-Jun-24	4028.7	3.935606207	3.7808823	14.29507	3.390245522	11.49376	13.34267	15.489
04-Jun-24	3857	4.261920719	4.416644626	19.50675	5.740551896	32.95394	24.46578	18.16397
05-Jun-24	3943.1	2.2323049	2.077580993	4.316343	3.195366754	10.21037	7.133033	4.983185
06-Jun-24	4012.8	1.767644747	1.61292084	2.601514	0.930692595	0.866189	1.645134	3.124568
07-Jun-24	4202	4.714912281	4.560188374	20.79532	2.15632443	4.649735	10.16688	22.2304
10-Jun-24	4230	0.666349357	0.51162545	0.261761	0.265055541	0.070254	-0.17662	0.444021
11-Jun-24	4190.95	-	-	1.161851	-	0.001917	0.040419	0.852239

24		0.923167849	1.077891756			0.043783455			
12-Jun-24	4247.4	1.346949976	1.192226069	1.421403	0.196163601	0.03848	0.264223	1.814274	
13-Jun-24	4247.55	0.003531572	0.151192335	0.022859	0.26672647	0.071143	0.000942	1.25E-05	
14-Jun-24	4328.15	1.897564478	1.742840571	3.037493	0.236776291	0.056063	0.449298	3.600751	
18-Jun-24	4419.15	2.102514931	1.947791024	3.79389	0.400518127	0.160415	0.842095	4.420569	
19-Jun-24	4299.35	2.710928572	2.865652479	8.211964	0.04715325	0.002223	-0.12783	7.349134	
20-Jun-24	4319.3	0.464023631	0.309299725	0.095666	0.182757182	0.0334	0.084804	0.215318	
21-Jun-24	4259.6	1.382168407	1.536892314	2.362038	0.347229886	0.120569	0.47993	1.91039	
24-Jun-24	4221.25	0.900319279	1.055043186	1.113116	0.169900492	0.028866	-0.15296	0.810575	
25-Jun-24	4335.35	2.70299082	2.548266913	6.493664	0.921166345	0.848547	2.489904	7.306159	
26-Jun-24	4396.9	1.419723898	1.264999991	1.600225	0.79526202	0.632442	1.129052	2.015616	
27-Jun-24	4507	2.504036935	2.349313028	5.519272	0.723146392	0.522941	1.810785	6.270201	
28-Jun-24	4386.05	2.683603284	2.838327191	8.056101	0.265574905	0.07053	0.712698	7.201727	
01-Jul-24	4469.25	1.8969232	1.742199293	3.035258	0.561109302	0.314844	1.064381	3.598318	
02-Jul-24	4329.1	3.135872909	3.290596816	10.82803	0.043711205	0.001911	0.137073	9.833699	
03-Jul-24	4310.15	0.437735326	0.592459233	0.351008	0.68648042	0.471255	-0.3005	0.191612	
04-Jul-24	4291.8	0.425739243	-0.58046315	0.336937	0.078600469	0.006178	-0.03346	0.181254	
05-Jul-24	4216.95	1.744023487	1.898747394	3.605242	0.066296338	0.004395	0.115622	3.041618	
08-Jul-24	4218.35	0.03319935	0.121524557	0.014768	0.045276924	0.00205	-0.0015	0.001102	
09-Jul-24	4257.8	0.935199782	0.780475875	0.609143	0.489317334	0.239431	0.457609	0.874599	
10-Jul-24	4391.75	3.145990887	2.99126698	8.947678	-0.53125238	0.282229	-1.67132	9.897259	
11-Jul-24	4340.1	1.176068765	1.330792672	1.771009	0.034319773	0.001178	0.040362	1.383138	
12-Jul-24	4338.75	0.031105274	0.185829181	0.034532	0.778499009	0.606061	-0.02422	0.000968	
15-Jul-24	4337.8	0.021895707	0.176619614	0.031194	0.180726767	0.032662	-0.00396	0.000479	
16-Jul-24	4430.65	2.140485961	1.985762054	3.943251	0.064079948	0.004106	0.137162	4.58168	
18-Jul-24	4372.35	-1.31583402	1.470557927	2.162541	0.776680867	0.603233	-1.02198	1.731419	
19-Jul-24	4271.4	2.308827061	2.463550968	6.069083	0.908259865	0.824936	2.097015	5.330682	

22-Jul-24	4479.25	4.866086061	4.711362154	22.19693	0.127250723	0.016193	-0.61921	23.67879
23-Jul-24	4477.15	0.046882849	0.201606756	0.040645	0.090730575	0.008232	0.004254	0.002198
24-Jul-24	4463.15	0.312698927	0.467422834	0.218484	0.348331896	0.121335	0.108923	0.097781
25-Jul-24	4402.9	1.349943426	1.504667333	2.264024	0.136096724	0.018522	0.183723	1.822347
26-Jul-24	4389.45	0.305480479	0.460204386	0.211788	1.615346365	2.609344	-0.49346	0.093318
29-Jul-24	4393.5	0.092266685	0.062457222	0.003901	0.028426444	0.000808	0.002623	0.008513
30-Jul-24	4518.3	2.840559918	2.685836011	7.213715	0.122375972	0.014976	0.347616	8.068781
31-Jul-24	4417	-2.24199367	2.396717577	5.744255	0.351038728	0.123228	-0.78703	5.026536
01-Aug-24	4425.05	0.182250396	0.027526489	0.000758	0.154401677	0.02384	0.02814	0.033215
02-Aug-24	4282.1	3.230471972	3.385195879	11.45955	1.081747286	1.170177	3.494554	10.43595
05-Aug-24	4201.4	1.884589337	2.039313244	4.158799	2.744500472	7.532283	5.172256	3.551677
06-Aug-24	4242.85	0.986575903	0.831851996	0.691978	-0.21118749	0.0446	-0.20835	0.973332
07-Aug-24	4299.8	1.342258152	1.187534245	1.410238	1.11325337	1.239333	1.494273	1.801657
08-Aug-24	4231	1.600074422	1.754798329	3.079317	0.732105913	0.535979	1.171424	2.560238
09-Aug-24	4228	0.070905223	-0.22562913	0.050909	1.039078815	1.079685	-0.07368	0.005028
12-Aug-24	4236.8	0.208136235	0.053412328	0.002853	0.071500344	0.005112	-0.01488	0.043321
13-Aug-24	4159.6	1.822129909	1.976853816	3.907951	0.869930189	0.756779	1.585126	3.320157
14-Aug-24	4104.2	1.331858833	-1.48658274	2.209928	0.189789178	0.03602	-0.25277	1.773848
16-Aug-24	4248.15	3.507382681	3.352658774	11.24032	1.682504512	2.830821	5.901187	12.30173
19-Aug-24	4319.05	1.668961783	1.514237876	2.292916	0.015117451	0.000229	-0.02523	2.785433
20-Aug-24	4300.65	0.426019611	0.580743518	0.337263	0.47022879	0.221115	-0.20033	0.181493
21-Aug-24	4299.6	0.024414914	0.179138821	0.032091	0.126777691	0.016073	-0.0031	0.000596
22-Aug-24	4404.3	2.435110243	2.280386336	5.200162	0.182793958	0.033414	0.445123	5.929762
23-Aug-24	4397.15	0.162341348	0.317065255	0.10053	0.04073868	0.00166	-0.00661	0.026355
26-Aug-24	4444.15	1.068874157	0.91415025	0.835671	0.754628931	0.569465	0.806603	1.142492
27-Aug-24	4496.45	1.176827965	1.022104058	1.044697	0.016707853	0.000279	0.019662	1.384924

28-Aug-24	4425.1	-1.58680737	1.741531277	3.032931	0.090317477	0.008157	-0.14332	2.517958
29-Aug-24	4446.7	0.488124562	0.333400655	0.111156	0.426786831	0.182147	0.208325	0.238266
30-Aug-24	4452.05	0.120313941	0.034409966	0.001184	0.281440431	0.079209	0.033861	0.014475
02-Sep-24	4486.55	0.774923911	0.620200004	0.384648	0.235619724	0.055517	0.182587	0.600507
03-Sep-24	4645.75	3.548383502	3.393659595	11.51693	0.005329468	2.84E-05	-0.01891	12.59103
04-Sep-24	4671.25	0.548888769	0.394164862	0.155366	0.245653103	0.060345	-0.13484	0.301279
05-Sep-24	4687.65	0.351083757	0.19635985	0.038557	0.183940673	0.033834	-0.06458	0.12326
06-Sep-24	4694.15	0.138662229	0.016061677	0.000258	1.237488619	1.531378	-0.17159	0.019227
09-Sep-24	4805.6	2.374231757	2.21950785	4.926215	0.462665456	0.214059	1.098475	5.636976
10-Sep-24	4682.8	2.555352089	2.710075996	7.344512	0.443541001	0.196729	-1.1334	6.529824
11-Sep-24	4601.65	1.732937559	1.887661466	3.563266	0.485990882	0.236187	0.842192	3.003073
12-Sep-24	4676.5	1.626590462	1.471866555	2.166391	1.765817223	3.11811	2.872261	2.645797
13-Sep-24	4765.2	1.896717631	1.741993724	3.034542	0.086508746	0.007484	-0.16408	3.597538
16-Sep-24	4807.55	0.888734995	0.734011088	0.538772	0.118034613	0.013932	0.104901	0.78985
17-Sep-24	4776.25	0.651059271	0.805783178	0.649287	0.109508779	0.011992	-0.0713	0.423878
18-Sep-24	4634.8	2.961528396	3.116252303	9.711028	0.158197566	0.025026	0.468507	8.77065
19-Sep-24	4621.55	0.285880728	0.440604635	0.194132	0.285201987	0.08134	-0.08153	0.081728
20-Sep-24	4635	0.291027902	0.136303995	0.018579	1.634325021	2.671018	0.475634	0.084697
23-Sep-24	4781.75	3.166127292	3.011403385	9.06855	0.454554541	0.20662	1.439178	10.02436
24-Sep-24	4747.55	0.715219323	-0.86994323	0.756801	0.017155585	0.000294	0.01227	0.511539
25-Sep-24	4642.95	2.203241672	2.357965579	5.560002	0.301281154	0.09077	-0.6638	4.854274
26-Sep-24	4585.05	1.247051982	1.401775889	1.964976	0.782260205	0.611931	-0.97552	1.555139
27-Sep-24	4638.5	1.165745194	1.011021287	1.022164	0.307877383	0.094788	-0.35891	1.358962
30-Sep-24	4643.45	0.106715533	0.048008374	0.002305	1.486551944	2.209837	-0.15864	0.011388
01-Oct-24	4620.2	0.500705295	0.655429202	0.429587	0.039727269	0.001578	0.019892	0.250706

07-Nov-24	4072.95	1.772600658	1.927324565	3.71458	1.040506914	1.082655	1.844403	3.142113
08-Nov-24	4081.75	0.216059613	0.061335706	0.003762	0.069736927	0.004863	-0.01507	0.046682
11-Nov-24	4066.1	0.383413977	0.538137884	0.289592	0.012366908	0.000153	-0.00474	0.147006
12-Nov-24	4067.6	0.036890386	0.117833521	0.013885	1.032716679	1.066504	-0.0381	0.001361
13-Nov-24	3973.35	2.317091159	2.471815066	6.10987	1.251004446	1.565012	2.898691	5.368911
14-Nov-24	3998.4	0.630450376	0.475726469	0.226316	0.142410409	0.020281	-0.08978	0.397468
18-Nov-24	3921.6	1.920768307	2.075492214	4.307668	0.311032529	0.096741	0.597421	3.689351
19-Nov-24	3956.3	0.884842921	0.730119014	0.533074	0.309507453	0.095795	0.273865	0.782947
21-Nov-24	4001.5	1.142481612	0.987757705	0.975665	0.544726508	0.296727	-0.62234	1.305264
22-Nov-24	4135.2	3.341247032	3.186523125	10.15393	2.542025686	6.461895	8.493536	11.16393
25-Nov-24	4215.3	1.937028439	1.782304532	3.176609	1.25477283	1.574455	2.430531	3.752079
26-Nov-24	4183.35	0.757953171	0.912677078	0.832979	-0.13205617	0.017439	0.100092	0.574493
27-Nov-24	4202.4	0.455376672	0.300652765	0.090392	0.287510409	0.082662	0.130926	0.207368
28-Nov-24	4142.1	1.434894346	1.589618253	2.526886	1.483584033	2.201022	2.128786	2.058922
29-Nov-24	4276.35	3.241109582	3.086385675	9.525777	0.9602911	0.922159	3.112409	10.50479
02-Dec-24	4499.6	5.22057362	5.065849713	25.66283	0.55798801	0.311351	2.913017	27.25439
03-Dec-24	4647.35	3.283625211	3.128901304	9.790023	0.744777944	0.554694	2.445572	10.78219
04-Dec-24	4628.6	0.403455733	-0.55817964	0.311565	0.13677899	0.018708	-0.05518	0.162777
05-Dec-24	4607.15	0.463423065	0.618146972	0.382106	0.999958867	0.999918	-0.4634	0.214761
06-Dec-24	4603	-0.09007738	0.244801287	0.059928	0.069393265	0.004815	0.006251	0.008114
09-Dec-24	4558.25	0.972192049	1.126915956	1.26994	0.245578462	0.060309	0.238749	0.945157
10-Dec-24	4604.15	1.006965392	0.852241485	0.726316	0.001950718	3.81E-06	0.001964	1.013979
11-Dec-24	4701.75	2.119826678	1.965102771	3.861629	0.019739897	0.00039	0.041845	4.493665
12-Dec-24	4647.35	1.157016005	1.311739912	1.720662	0.289698494	0.083925	0.335186	1.338686
13-Dec-24	4741.5	2.02588572	1.871161813	3.501247	1.037225261	1.075836	2.1013	4.104213

03-Oct-24	4567.1	1.149300896	1.304024803	1.700481	2.099522834	4.407996	2.412983	1.320893
04-Oct-24	4568.5	0.030654026	0.124069881	0.015393	0.980216274	0.960824	-0.03005	0.00094
07-Oct-24	4366.4	4.423771479	4.578495386	20.96262	0.781567039	0.610847	3.457474	19.56975
08-Oct-24	4437.5	1.628343716	1.473619809	2.171555	0.721542258	0.520623	1.174919	2.651503
09-Oct-24	4331.95	2.378591549	2.533315456	6.417687	0.205439322	0.042205	0.488656	5.657698
10-Oct-24	4254.3	1.792495297	1.947219204	3.791663	0.177138992	0.031378	-0.31752	3.213039
11-Oct-24	4238.6	0.369038385	0.523762292	0.274327	0.281884604	0.079459	0.104026	0.136189
14-Oct-24	4296.2	1.358939272	1.204215365	1.450135	0.727058383	0.528614	0.988028	1.846716
15-Oct-24	4324.1	0.649411107	0.494687201	0.244715	0.186561315	0.034805	-0.12115	0.421735
16-Oct-24	4347.35	0.537684142	0.382960235	0.146659	0.389586327	0.151778	-0.20947	0.289104
17-Oct-24	4291.7	-1.28009017	1.434814077	2.058691	0.607045085	0.368504	0.777072	1.638631
18-Oct-24	4301.9	0.237668057	0.08294415	0.00688	0.269286667	0.072515	0.064001	0.056486
21-Oct-24	4208.3	2.175782794	2.330506701	5.431261	0.090465037	0.008184	0.196832	4.734031
22-Oct-24	4203.6	0.111684053	-0.26640796	0.070973	-1.14668569	1.314888	0.128067	0.012473
23-Oct-24	4227.55	0.569749738	0.415025831	0.172246	0.172947837	0.029911	-0.09854	0.324615
24-Oct-24	4199.9	0.654043122	0.808767029	0.654104	0.021003477	0.000441	0.013737	0.427772
25-Oct-24	4123.9	1.809566894	1.964290801	3.858438	0.827913165	0.68544	1.498164	3.274532
28-Oct-24	4251.95	3.105070443	2.950346536	8.704545	0.759109089	0.576247	2.357087	9.641462
29-Oct-24	4348.9	2.280130293	2.125406386	4.517352	0.454958838	0.206988	1.037365	5.198994
30-Oct-24	4336.95	0.274782129	0.429506036	0.184475	0.531112544	0.282081	0.14594	0.075505
31-Oct-24	4320.35	0.382757468	0.537481375	0.288886	0.691900071	0.478726	0.26483	0.146503
01-Nov-24	4341.15	0.481442476	0.326718569	0.106745	0.422048076	0.178125	0.203192	0.231787
04-Nov-24	4276.3	1.493843797	1.648567704	2.717775	1.181424141	1.395763	1.764863	2.231569
05-Nov-24	4119.75	3.660875056	3.815598963	14.5588	0.881404235	0.776873	-3.22671	13.40201
06-Nov-24	4146.45	0.648097579	0.493373672	0.243418	1.134295704	1.286627	0.735134	0.42003

16-Dec-24	4752.9	0.240430244	0.085706337	0.007346	0.468203327	0.219214	-0.11257	0.057807
17-Dec-24	4668.7	1.771550001	1.926273908	3.710531	1.301698611	1.694419	2.306024	3.138389
18-Dec-24	4616.8	1.111658492	1.266382399	1.603724	0.622486737	0.38749	0.691993	1.235785
19-Dec-24	4575.6	0.892392999	1.047116906	1.096454	1.202448923	1.445883	1.073057	0.796365
20-Dec-24	4515.05	1.323323717	1.478047624	2.184625	1.485090835	2.205495	1.965256	1.751186
23-Dec-24	4586.35	1.579163021	1.424439114	2.029027	0.638864482	0.408148	1.008871	2.493756
24-Dec-24	4564.55	0.475323514	0.630047421	0.39696	0.085688636	0.007343	0.04073	0.225932
26-Dec-24	4589.75	0.552080709	0.397356802	0.157892	0.000496987	2.47E-07	-0.00027	0.304793
27-Dec-24	4575.5	0.310474427	0.465198334	0.216409	0.28875091	0.083377	-0.08965	0.096394
30-Dec-24	4571.15	0.095071577	0.249795484	0.062398	0.572992794	0.328321	0.054475	0.009039
31-Dec-24	4600.9	0.650820909	0.496097002	0.246112	0.139453812	0.019447	-0.09076	0.423568
01-Jan-25	4581.6	0.419483145	0.574207052	0.329714	0.471467453	0.222282	-0.19777	0.175966
02-Jan-25	4740.55	3.469312031	3.314588124	10.98649	1.829508832	3.347103	6.347137	12.03613
03-Jan-25	4730.7	0.207781797	0.362505704	0.13141	0.901384236	0.812494	0.187291	0.043173
06-Jan-25	4699.6	0.657407995	0.812131902	0.659558	1.588071965	2.521973	1.044011	0.432185
07-Jan-25	4816.6	2.489573581	2.334849674	5.451523	0.30028863	0.090173	0.747591	6.197977
08-Jan-25	4751.5	-1.3515758	1.506299707	2.268939	0.064732195	0.00419	0.08749	1.826757
09-Jan-25	4738.8	0.267284016	0.422007923	0.178091	0.675995147	0.456969	0.180683	0.071441
10-Jan-25	4542.35	4.145564278	4.300288185	18.49248	0.310872645	0.096642	1.288743	17.1857
13-Jan-25	4363.35	3.940691492	4.095415399	16.77243	1.355537316	1.837481	5.341754	15.52905
14-Jan-25	4393.75	0.696712388	0.541988481	0.293752	0.222219282	0.049381	0.154823	0.485408
15-Jan-25	4460.1	1.510099573	1.355375666	1.837043	0.293400112	0.086084	0.443063	2.280401
16-Jan-25	4550.4	2.024618282	1.869894375	3.496505	0.415436718	0.172588	0.841101	4.099079
17-Jan-25	4541.4	-0.19778481	0.352508717	0.124262	0.549681333	0.30215	0.108719	0.039119
20-Jan-25	4505.45	0.791606113	-0.94633002	0.895541	0.592683335	0.351274	-0.46917	0.62664

21-Jan-25	4588.3	1.838884018	1.684160111	2.836395	1.602471617	2.567915	-2.94676	3.381494
22-Jan-25	4632.1	0.954601922	0.799878015	0.639805	0.74715487	0.55824	0.713235	0.911265
23-Jan-25	4790.2	3.413138749	3.258414842	10.61727	0.151024167	0.022808	0.515466	11.64952
24-Jan-25	4754.5	0.745271596	0.899995503	0.809992	0.431153112	0.185893	0.321326	0.55543
27-Jan-25	4780.15	0.539488905	0.384764998	0.148044	1.081880855	1.170466	-0.58366	0.291048
28-Jan-25	4833.35	1.112935787	0.95821188	0.91817	0.710186016	0.504364	0.790391	1.238626
29-Jan-25	4887.4	1.118272006	0.963548099	0.928425	0.832066229	0.692334	0.930476	1.250532
30-Jan-25	4799.8	1.792364038	1.947087945	3.791151	0.29640824	0.087858	-0.53127	3.212569
31-Jan-25	4835.35	0.740655861	0.585931954	0.343316	0.965036261	0.931295	0.71476	0.548571
01-Feb-25	4719.65	-2.39279473	2.547518637	6.489851	0.006954788	4.84E-05	-0.01664	5.725467
03-Feb-25	4750.9	0.662125369	0.507401462	0.257456	-0.4118651	0.169633	-0.27271	0.43841
04-Feb-25	4880.1	2.719484729	2.564760822	6.577998	1.809987052	3.276053	4.922232	7.395597
05-Feb-25	4934.55	1.115755825	0.961031918	0.923582	0.397702784	0.158168	-0.44374	1.244911
06-Feb-25	4901.35	0.672807044	0.827530951	0.684807	-0.27228378	0.074138	0.183194	0.452669
07-Feb-25	4876.25	0.512103808	0.666827715	0.444659	0.253618584	0.064322	0.129879	0.26225
10-Feb-25	4811.25	1.332991541	1.487715448	2.213297	0.704326563	0.496076	0.938861	1.776866
11-Feb-25	4827.05	0.328396986	0.173673079	0.030162	1.317004649	1.734501	-0.4325	0.107845
12-Feb-25	4746.7	1.664577744	1.819301651	3.309858	0.160590141	0.025789	0.267315	2.770819
13-Feb-25	4789.2	0.895358881	0.740634974	0.54854	0.042155107	0.001777	-0.03774	0.801668
14-Feb-25	4652.65	2.851206882	3.005930789	9.03562	0.262362362	0.068834	0.748049	8.129381
17-Feb-25	4632.15	0.440609115	0.595333022	0.354421	0.075915986	0.005763	-0.03345	0.194136
18-Feb-25	4516.55	2.495601395	2.650325302	7.024224	0.038777918	0.001504	0.096774	6.228026
19-Feb-25	4619.35	2.276073552	2.121349645	4.500124	0.037134355	0.001379	-0.08452	5.180511
20-Feb-25	4670.6	1.109463453	0.954739546	0.911528	0.267608894	0.071615	-0.2969	1.230909
21-Feb-25	4581	1.918383077	2.073106984	4.297773	0.561028077	0.314753	1.076267	3.680194



24-Feb-25	4581.8	0.017463436	0.137260471	0.01884	-1.13748233	1.293866	-0.01986	0.000305
25-Feb-25	4569.15	0.276092365	0.430816272	0.185603	0.19838986	0.039359	-0.05477	0.076227
27-Feb-25	4522.55	1.019883348	1.174607255	1.379702	0.013819983	0.000191	-0.01409	1.040162
28-Feb-25	4395.75	2.803727985	2.958451892	8.752438	1.895568875	3.593181	5.31466	7.860891
03-Mar-25	4440.25	1.012341466	0.857617559	0.735508	0.153228021	0.023479	-0.15512	1.024835
04-Mar-25	4400.8	0.888463487	1.043187394	1.08824	0.131365896	0.017257	0.116714	0.789367
05-Mar-25	4460.9	1.365660789	1.210936882	1.466368	1.0142495	1.028702	1.385121	1.865029
06-Mar-25	4504.15	0.969535296	0.814811389	0.663918	0.827150546	0.684178	0.801952	0.939999
07-Mar-25	4407.3	2.150239224	2.304963131	5.312855	0.010102221	0.000102	0.021722	4.623529
10-Mar-25	4399.2	0.183785991	0.338509898	0.114589	0.292482785	0.085546	0.053754	0.033777
11-Mar-25	4343.85	1.258183306	1.412907213	1.996307	0.017337881	0.000301	0.021814	1.583025
12-Mar-25	4354.5	0.245174212	0.090450305	0.008181	0.097918662	0.009588	-0.02401	0.06011
13-Mar-25	4272.95	-1.87277529	2.027499197	4.110753	0.271309808	0.073609	0.508102	3.507287
17-Mar-25	4353.05	1.874583133	1.719859226	2.957916	0.461932866	0.213382	0.865932	3.514062
18-Mar-25	4501.05	3.399915002	3.245191095	10.53127	1.525294273	2.326523	5.185871	11.55942
19-Mar-25	4643.8	3.17148221	3.016758303	9.100831	0.196264976	0.03852	0.622451	10.0583
20-Mar-25	4660.1	0.351005642	0.196281735	0.038527	1.191545818	1.419781	0.418239	0.123205
21-Mar-25	4825.45	3.54820712	3.393483213	11.51573	0.730142979	0.533109	2.590699	12.58977
24-Mar-25	4742.05	1.728336217	1.883060124	3.545915	1.402851369	1.967992	-2.4246	2.987146
25-Mar-25	4747.9	0.123364368	0.031359539	0.000983	0.042072528	0.00177	0.00519	0.015219
26-Mar-25	4716	0.671875987	0.826599894	0.683267	0.934012107	0.872379	0.62754	0.451417
27-Mar-25	4856.85	2.986641221	2.831917314	8.019756	0.411354859	0.169213	1.228569	8.920026
28-Mar-25	4932	1.547299175	1.392575268	1.939266	0.246770789	0.060896	-0.38183	2.394135
01-Apr-25	4939.25	0.146999189	0.007724718	5.97E-05	1.796049134	3.225792	-0.26402	0.021609

### Calculation of four measures of risk

$$\begin{aligned}\sum x &= 105.3439 \\ \sum y &= 192.1671 \\ \sum x^2 &= 1282.8802 \\ \sum xy &= 962.7871 \\ \sum (y - \bar{R})^2 &= 5022.4854\end{aligned}$$

#### ➤ Calculation of Beta

$$\beta = \frac{n\sum xy - (\sum x * \sum y)}{n\sum x^2 - (\sum x)^2}$$

$$\beta = \frac{1242 * 962.7871 - (105.3439 * 192.1671)}{1242 * 1282.8802 - (105.3439)^2}$$

$$\beta = 0.7430$$

#### ➤ Calculation Of Alpha

$$\bar{x} = \frac{\sum x}{n} = \frac{105.3439}{1242} = 0.084817944$$

$$\bar{y} = \frac{\sum y}{n} = \frac{192.1671}{1242} = 0.1547$$

$$\begin{aligned}\alpha &= \bar{y} - (\beta * \bar{x}) \\ &= 0.1547 - (0.7430 * 0.084817944) \\ &= 0.1547 - 0.063016177 \\ &= 0.0917\end{aligned}$$

#### ➤ Calculation Of Standard Deviation

$$\text{Standard Deviation (S.D)} = \sqrt{\frac{\sum (y - \bar{R})^2}{n-1}}$$

$$\text{Standard Deviation (S.D)} = \sqrt{\frac{5022.4854}{1242-1}}$$

$$\text{Standard Deviation (S.D)} = \sqrt{4.0471}$$

$$\text{Standard Deviation (S.D)} = 2.0117$$

#### ➤ Calculation Of Variance

$$\text{Variance} = (S.D)^2$$

$$\text{Variance} = 2.0117^2$$

$$\text{Variance} = 4.0471$$

#### Interpretation:

Metric	Value	Interpretation
<b>Alpha</b>	+0.0917 (0.0917%)	Indicates the stock outperformed the market by a negligible amount of 0.0917%.
<b>Beta</b>	+0.7430 (74.3%)	The stock is highly volatile than the market (moves about 74.3% as much as the market ).
<b>Standard Deviation</b>	2.0117	Moderate volatility in the stock's own returns. Not extremely unstable by itself.
<b>Variance</b>	4.0471	Indicates significant moderate to high volatility of returns around the mean, confirm variability.
<b>Company Returns</b>	15.47%	Strong return achieved during the period. Indicates good performance than benchmarks BSE Sensex.

**1. Alpha (+0.0917%)**

A positive alpha of +0.0917% indicates the stock slightly outperformed its benchmark (e.g., BSE Sensex) after adjusting for market risk. This modest excess return suggests some value-add from management decisions, a competitive advantage, or supportive sectoral conditions. While not a dramatic outperformance, it reflects a consistent ability to generate returns above expectations, appealing to investors seeking steady, risk-adjusted gains.

**2. Beta (+0.7430)**

A beta of 0.7430 suggests the stock is less volatile than the broader market but still exhibits some market sensitivity. If the market moves by 10%, the stock is expected to move by approximately 7.43% in the same direction. This moderate beta offers a balance between risk and stability—ideal for investors who want exposure to market growth but with a cushion against extreme swings. The stock benefits from some market momentum while maintaining a degree of insulation from macroeconomic shocks.

**3. Standard Deviation (2.0117%)**

A standard deviation of 2.0117% indicates moderate daily price volatility. Most daily returns fall within  $\pm 2.01\%$  of the average, which points to a stable performance with manageable fluctuations. It suits moderately risk-tolerant investors seeking a balance between consistent returns and occasional growth opportunities without being exposed to wild price swings.

**4. Variance (4.0471)**

With a variance of 4.0471 (the square of the standard deviation), the stock exhibits moderate return dispersion. It is more volatile than low-risk assets but significantly more stable than high-beta, speculative stocks. This level of variance complements its moderate beta, implying the stock can deliver reliable returns while occasionally reacting to broader market or sectoral events.

**5. Company Returns (15.47%)**

A return of 15.47% is significantly higher than the market average, signaling strong company performance, possibly due to effective management, efficient capital allocation, or a well-positioned business model. Combined with a moderate beta and standard deviation, the stock appears well-suited for growth-oriented investors who are also

mindful of downside protection. It offers a compelling blend of strong returns and controlled risk, making it an attractive candidate for a core portfolio holding.

### **Takeover standpoint**

This stock offers a compelling blend of strong returns, moderate market sensitivity, and controlled volatility—an attractive profile for balanced investors. While its alpha indicates only slight outperformance, the solid company returns of 15.47% paired with a moderate beta of 0.7430 suggest it participates in market gains without excessive exposure to downturns. Its moderate volatility further enhances its appeal as a growth-oriented yet risk-conscious investment. Ideal for investors seeking reliable performance with a cushion against market extremes, this stock fits well in diversified portfolios aiming for long-term, stable appreciation.

# FUNDAMENTAL ANALYSIS

Standalone Balance Sheet as on March 31, 2024.

## Standalone Balance Sheet

as at 31 March 2024

(All amounts are in Rupees Crores, unless otherwise stated)

	Notes	As at 31 March 2024	As at 31 March 2023*
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	2	7,773.52	6,998.66
Capital work-in-progress	2	415.18	590.20
Intangible assets	3	115.97	116.01
Right-of-use assets	3(i)	192.11	186.69
<b>Financial assets:</b>			
(i) Investments	4	1,371.11	944.86
(ii) Other financial assets	5	184.68	297.98
Other non-current assets	6	161.82	177.16
<b>Total non-current assets</b>		<b>10,214.39</b>	<b>9,311.56</b>
<b>Current assets</b>			
Inventories	7	1,067.53	863.54
<b>Financial assets:</b>			
(i) Investments	8	99.83	70.82
(ii) Trade receivables	9	460.40	410.76
(iii) Cash and cash equivalent	10	97.20	239.15
(iv) Bank balances other than (iii) above	11	680.46	574.06
(v) Other financial assets	12	1,308.45	792.16
Current tax assets (net)	13	47.20	35.69
Other current assets	14	297.19	517.55
Assets classified as held for sale		11.90	8.04
<b>Total current assets</b>		<b>4,070.16</b>	<b>3,511.77</b>
<b>Total assets</b>		<b>14,284.55</b>	<b>12,823.33</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Equity share capital	15	77.27	77.27
Other equity	16	5,276.12	4,562.42
<b>Total equity</b>		<b>5,353.39</b>	<b>4,639.69</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
<b>Financial liabilities:</b>			
(i) Borrowings	17	4,177.22	4,100.71
(ii) Lease liabilities	17d	43.61	39.49
(iii) Other financial liabilities	18	473.91	413.65
Provisions	19	51.73	48.09
Deferred tax liabilities (net)	20	1,053.92	812.98
Other non-current liabilities	21	98.37	116.04
<b>Total non-current liabilities</b>		<b>5,898.76</b>	<b>5,590.96</b>
<b>Current liabilities</b>			
<b>Financial liabilities:</b>			
(i) Borrowings	22	1,000.74	816.04
(ii) Lease liabilities	22a	10.25	9.65
(iii) Trade payables			
(a) Total outstanding dues of micro enterprises and small enterprises	23	208.47	97.84
(b) Total outstanding dues of creditors other than micro enterprises and small enterprises	23	600.70	655.37
(iv) Other financial liabilities	24	265.82	253.75
Other current liabilities	25	842.58	729.14
Provisions	26	103.84	90.89
<b>Total current liabilities</b>		<b>3,082.40</b>	<b>2,652.68</b>
<b>Total liabilities</b>		<b>8,981.16</b>	<b>8,183.64</b>
<b>Total equity and liabilities</b>		<b>14,284.55</b>	<b>12,823.33</b>

## Standalone Profit & Loss as on March 31, 2024.

### Standalone Statement of Profit and Loss

for the year ended 31 March 2024

(All amounts are in Rupees Crores, unless otherwise stated)

	Notes	For the year ended 31 March 2024	For the year ended 31 March 2023*
<b>Income</b>			
Revenue from operations	27	10,918.05	9,310.25
Other Income	28	135.32	85.13
<b>Total Income (I)</b>		<b>11,053.37</b>	<b>9,395.38</b>
<b>Expenses</b>			
Cost of materials consumed	29	1,618.94	1,418.55
Purchase of traded goods		307.62	150.19
Changes in inventories of finished goods, work-in-progress and traded goods	30	(208.19)	(24.35)
Employee benefits expenses	31	709.80	575.32
Finance costs	32	436.59	295.57
Depreciation and amortisation expenses	33	485.90	392.24
Power and fuel(net)		2,459.72	2,449.13
Freight and forwarding expenses	34	2,301.62	1,932.81
Other expenses	35	1,723.49	1,488.19
<b>Total Expenses (II)</b>		<b>9,835.49</b>	<b>8,677.65</b>
<b>Profit before exceptional items &amp; tax expense (I) - (II)</b>		<b>1,217.88</b>	<b>717.73</b>
Exceptional items	46(II)	5.50	-
<b>Profit before tax</b>		<b>1,212.38</b>	<b>717.73</b>
<b>Tax expense</b>			
Current tax	20	143.32	142.09
Adjustment of tax relating to earlier periods (net)	20	(1.36)	-
Deferred tax	20	239.78	72.96
<b>Total tax expense</b>	20	<b>381.74</b>	<b>215.05</b>
<b>Profit for the year (III)</b>		<b>830.64</b>	<b>502.68</b>
<b>Other comprehensive income/(loss)</b>			
<b>Items that will not be reclassified to profit or loss</b>			
Remeasurement gains/(losses) on defined benefit plans		(1.60)	5.05
Income tax relating to remeasurement of defined benefit plans		0.56	(1.75)
<b>Other comprehensive income/(loss) for the year, net of tax (IV)</b>		<b>(1.04)</b>	<b>3.30</b>
<b>Total comprehensive income for the year, net of tax (III + IV)</b>		<b>829.60</b>	<b>505.98</b>
<b>Earnings per equity share (Face value of ₹ 10 each)</b>	36		
Basic (in ₹)		107.50	65.06
Diluted (in ₹)		107.50	65.06

## Calculation of Different Ratios

### 1. Current ratio

$$\begin{aligned}\text{Current ratio} &= \frac{\text{current assets}}{\text{current liabilities}} \\ &= \frac{4070.16}{3032.4}\end{aligned}$$

**Current ratio = 1.34: 1**

#### Interpretation:

JK Cement Ltd. has ₹1.34 of current assets for every ₹1 of current liabilities. This indicates a company meets its short-term obligations effectively because its current liabilities are greater than its current assets.

### 2. Quick ratio

$$\begin{aligned}\text{Quick ratio} &= \frac{(\text{current assets} - \text{Inventory})}{\text{current liabilities}} \\ &= \frac{(4070.16 - 1067.53)}{3032.4}\end{aligned}$$

**Quick ratio = 0.99: 1**

#### Interpretation:

JK Cement Ltd. has ₹ 0.99 of quick assets (excluding inventory) for every ₹1 of current liabilities. This ratio is very less compared to the current ratio, which means that inventory is a big component of current assets. This further confirms strong short-term illiquidity.

### 3. Debt ratio

$$\begin{aligned}\text{Debt ratio} &= \frac{\text{Total liabilities}}{\text{Total assets}} \\ &= \frac{(5898.76 + 3032.4)}{14284.55}\end{aligned}$$

**Debt ratio = 63%**

#### Interpretation:

63% of JK Cement Ltd.'s assets are financed by debt. This indicates a moderate level of debt financing. A lower debt ratio generally suggests lower risk.

### 4. Cash ratio

$$\begin{aligned}\text{Cash ratio} &= \frac{(\text{Cash and Cash Equivalents} + \text{Bank balances})}{\text{Current Liabilities}} \\ &= \frac{(777.66 + 0)}{3032.4}\end{aligned}$$



**Cash ratio = 0.26:1**

**Interpretation:**

JK Cement Ltd. has ₹0.26 of cash and cash equivalents for every ₹1 of current liabilities. This is a more lenient measure of liquidity. Indicating that the company covers its short-term liabilities with its cash and cash equivalents.

**5. Proprietary ratio**

$$\begin{aligned}\text{Proprietary ratio} &= \frac{\text{Shareholders' Equity}}{\text{Total Assets}} \\ &= \frac{5353.39}{14284.55}\end{aligned}$$

**Proprietary ratio = 0.37:1**

**Interpretation:**

37% of JK Cement Ltd.'s assets are financed by shareholders' funds (equity). This reflects a weak equity base, suggesting financial instability and heavy reliance on debt.

**6. Debt Equity ratio**

$$\begin{aligned}\text{Debt Equity ratio} &= \frac{\text{Total Debt}}{\text{Total Equity}} \\ &= \frac{(4177.22 + 1053.92 + 615.89 + 3032.4)}{(5353.39)}\end{aligned}$$

**Debt Equity ratio = 1.66:1**

**Interpretation:**

For every ₹1 of shareholders' funds, there is ₹ 1.66 of debt. This ratio aligns with the debt ratio and proprietary ratio, confirming a higher proportion of debt financing compared to equity.

**7. Capital Gearing ratio**

$$\begin{aligned}\text{Capital Gearing ratio} &= \frac{\text{Total Debt}}{(\text{Total Debt} + \text{Shareholders' Equity})} \\ &= \frac{(4177.22 + 1053.92 + 615.89 + 3032.4)}{(4177.22 + 1053.92 + 615.89 + 3032.4 + 5353.39)}\end{aligned}$$

**Capital Gearing ratio = 0.62:1**

**Interpretation:**

The capital gearing ratio of 0.62:1 means that the company has ₹ 0.62 of debt for every ₹ 1 of equity, indicating a higher level of financial risk.

#### 8. Stock to Working Capital ratio

$$\begin{aligned}\text{Stock to Working Capital ratio} &= \frac{\text{Inventory}}{(\text{Current Assets} - \text{Current Liabilities})} \\ &= \frac{1067.53}{(4070.16 - 3032.4)}\end{aligned}$$

$$\text{Stock to Working Capital ratio} = 1.03$$

##### Interpretation:

The ratio is positive because Working Capital (Current Assets – Current Liabilities) is positive. This means the company's current assets exceed its current liability, signaling no liquidity risks. The company does not struggle to meet short-term obligations with selling inventory or raising additional funds. Stock to Working Capital ratio of 1.03 reflects a liquidity surplus where inventory does not dominate the balance sheet. The company has better solvency.

#### 9. Asset turnover ratio

$$\begin{aligned}\text{Asset Turnover ratio} &= \frac{\text{Revenue from Operations}}{\text{Total Assets}} \\ &= \frac{10563.16}{14284.55}\end{aligned}$$

$$\text{Asset Turnover ratio} = 0.74:1$$

##### Interpretation:

JK Cement Ltd. generates ₹0.74 of revenue for every ₹1 of assets. This indicates reasonable efficiency in utilizing assets to generate sales. A 0.74:1 Asset Turnover Ratio suggests the company is not generating sufficient revenue from its asset base. While this may be normal in capital-intensive industries such as cement industry.

#### 10. Price Earnings (PE) Ratio

$$\begin{aligned}\text{Price Earnings (PE) Ratio} &= \frac{\text{Market Price Per Share}}{\text{Earnings Per Share}} \\ &= \frac{4939.25}{107.5}\end{aligned}$$

$$\text{Price Earnings (PE) Ratio} = 45.95$$

**Interpretation:**

JK Cement Ltd. PE ratio of ₹45.95 indicates that the investors are willing to pay ₹45.95 for every ₹1 of earnings the company generates annually. This indicates that stock price is 45.95 times the earnings per share (EPS). And indicating stock is expensive and market expects high future growth in earnings also showcasing that investor have strong confidence in the company's potential.

**11. Net Profit Ratio**

$$\begin{aligned}\text{Net Profit Ratio} &= \frac{\text{Profit After Tax}}{\text{Revenue from Operations}} * 100 \\ &= \frac{830.64}{10563.16} * 100\end{aligned}$$

**Net Profit Ratio = 8.0%**

**Interpretation:**

JK Cement Ltd. earns a net profit of ₹0.08 for every ₹1 of revenue. This shows the company's profitability after all expenses.

**12. Return on Assets (ROA)**

$$\begin{aligned}\text{Return on Assets (ROA)} &= \frac{\text{Profit After Tax}}{\text{Total Assets}} * 100 \\ &= \frac{830.64}{14284.55} * 100\end{aligned}$$

**Return on Assets (ROA) = 6.0%**

**Interpretation:**

JK Cement Ltd. generates a return of 6.0% on its assets. This ratio indicates how effectively the company is using its assets to generate profit.

**13. Return on Equity (ROE)**

$$\begin{aligned}\text{Return on Equity (ROE)} &= \frac{\text{Profit After Tax}}{\text{Total Equity}} * 100 \\ &= \frac{830.64}{5353.39} * 100\end{aligned}$$

**Return on Equity (ROE) = 16%**

**Interpretation:**

JK Cement Ltd. generates a return of 16% on shareholders' equity. This ratio measures the return generated for shareholders' investment.

**14. Earnings Per Share (EPS)**

$$\text{Earnings Per Share (EPS)} = \frac{\text{Profit After Tax}}{\text{Number of Equity Shares}}$$

$$= \frac{830.64 * 10000000}{77268837}$$

**Earnings Per Share (EPS) = 107.5**

Interpretation:

An Earnings Per Share (EPS) of 107.5 means that the company has earned ₹107.5 in profit for each outstanding share of its stock over the past year.

### 15. Book Value Per Share (BVP)

$$\begin{aligned} \text{Book Value Per Share (BVP)} &= \frac{\text{Total Equity}}{\text{Number of OS Shares}} \\ &= \frac{5353.39 * 10000000}{77268837} \end{aligned}$$

**Book Value Per Share (BVP) = 692.83**

Interpretation:

A Book Value Per Share (BVPS) of ₹692.83 indicates that each share represents ₹692.83 worth of the company's net assets and is much lower than the Market Price of the Share indicating that the investors expect strong future growth. With a strong EPS company is profitable and has a solid asset base.

### 16. Price-to-Book (PB) ratio

$$\begin{aligned} \text{Price – to – Book (PB) ratio} &= \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}} \\ &= \frac{4939.25}{692.83} \end{aligned}$$

**Price-to-Book (PB) ratio = 7.13 Times**

Interpretation:

JK Cement Ltd. Is trading 7.13 times above the Book Value of the stock, indicating that investors are willing to ₹7.13 for per ₹1 of asset the company holds. Suggesting that investors have strong confidence and growth expectations.

### Conclusion

The financial ratios indicate that the company is operating with moderate liquidity, elevated financial leverage, and strong returns on equity, though it may face operational inefficiencies and funding risks. The current ratio (1.34) reflects just-adequate short-term liquidity, while the quick ratio (0.99) and cash ratio (0.26) signal limited buffer in meeting immediate obligations. A stock to working capital ratio of 1.03 suggests a heavy reliance on inventory, potentially straining operational flexibility.

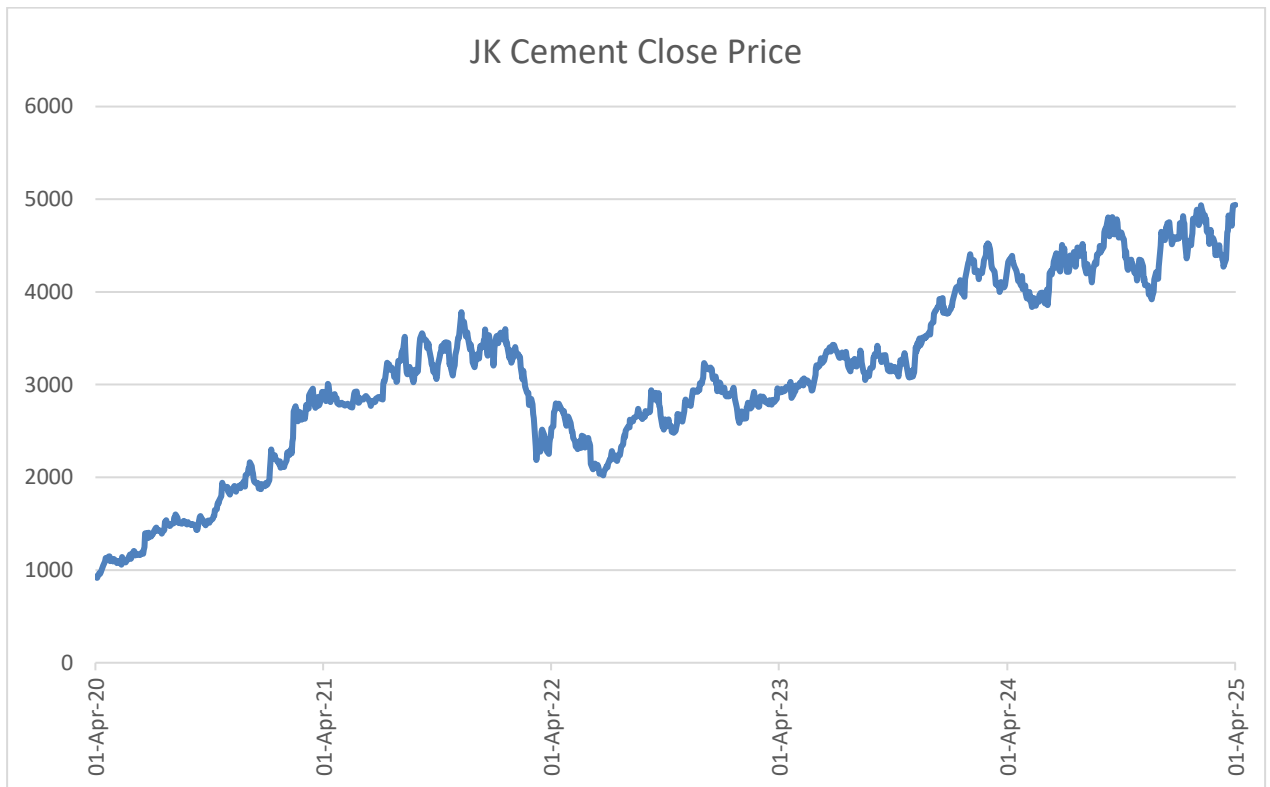
The company's capital structure is debt-heavy, as seen from the debt to asset ratio (0.63), debt to equity ratio (1.66), and a relatively low proprietary ratio (0.37). The capital gearing ratio (0.62) confirms a significant use of fixed cost financing, which raises financial risk, especially during downturns.

Profitability metrics are moderately strong. The net profit ratio (8%), return on assets (6%), and return on equity (16%) demonstrate effective use of shareholder funds and an ability to maintain healthy margins. However, an asset turnover ratio of 0.74 reflects suboptimal efficiency in asset utilization, indicating potential room to enhance revenue generation from its asset base.

From a valuation standpoint, the price-to-earnings ratio (45.95) and price-to-book ratio (7.13) imply a premium valuation, possibly driven by investor confidence or future growth expectations. The

company supports this with a robust EPS of ₹107.50 and a high book value per share of ₹692.83, affirming strong underlying fundamentals.

In summary, while the company shows solid profitability and is favoured by the market, its high debt exposure and tight liquidity signal a need for prudent capital management and improvements in operational efficiency to sustain long-term growth.



## **CHAPTER 5**

# **FINDINGS, RECOMMENDATIONS AND CONCLUSION**

## **FINDINGS, RECOMMENDATIONS AND CONCLUSION**

### **5.1 Findings based on Observations**

- India's economy is primarily agriculture and service-driven, with a mixed model allowing coexistence of private and public sectors to foster competition and welfare goals.
- The cement sector is a core industry driving infrastructure development, with key players like UltraTech Cement, ACC, Shree Cement, Dalmia Bharat, and Ambuja Cements operating through integrated and grinding units.
- JK Cement Limited, established in 1975 and headquartered in Kanpur, Uttar Pradesh, is a leading producer of grey and white cement, with a strong focus on sustainability through technologies that minimize environmental impact.
- The company has diversified its products to include OPC, PPC, blended cement, and "JK White Cement" for decorative purposes, serving diverse customers like infrastructure developers and individual builders.
- Environmental sustainability is prioritized in the cement industry, with investments in clinker reduction, renewable energy, and carbon capture to address regulatory challenges.
- India's demographic dividend, with 65% of the population in the 15-59 age group, provides human capital but poses long-term challenges due to an aging population and declining birth rates.
- Employment trends show higher reliance on primary (agriculture) and tertiary (services) sectors, with limited secondary sector participation, indicating a shift toward service dependency.
- The Public Distribution System has improved efficiency through digitization, reducing leakages and enhancing food security reach.

### **5.2 Findings based on analysis of data**

- India's population stood at 139.5 crores in 2023-24, with a reduced growth rate of ~1%, and literacy rate at 80.9%, showing gender and urban-rural disparities.
- Labor force participation is 45.1% in primary and secondary sectors, with urban areas favoring tertiary sector employment (60.3% male, 60.8% female).
- PDS procurement was 266.1 lakh tonnes, off-take 159.8 lakh tonnes, and stocks 729.2 lakh tonnes, with storage efficiency increasing from 40.43% to 171.21% over five years.
- Exports increased by 39.48% and imports by 42.87% over five years, leading to a 49.45% rise in trade deficit, with largest deficit with China (\$85,076.9 million) and surplus with USA (\$35,319.5 million).
- Forex reserves have grown significantly, driven by gold holdings and FCAs, with a massive SDR increase in 2021-22 due to IMF allocation.
- Inflation projections range from 4.0% in Q4 2024-25 to 4.5% in Q4 2025-26, within RBI's target range.
- Cement industry market value was ₹1.2 lakh crore in FY 2023, producing 380 million tonnes, projected to reach ₹2 lakh crore by 2030.
- Peer analysis shows UltraTech as leader in sales (₹1,38,731.66 crores total, average 27,746.33 crores) and net profit (₹14,662.88 crores total, average 2,932.58 crores), with

Shree Cements highest EPS (total 1,135.52, average 227.104).

- JK Cement's risk metrics: Alpha +0.0917%, Beta +0.7430, Standard Deviation 2.0117%, Variance 4.0471, Company Returns 15.47%.
- Financial ratios: Current 1.34:1, Quick 0.99:1, Debt 63%, Debt-Equity 1.66:1, ROA 6.0%, ROE 16%, EPS 107.5, P/E 45.95, P/B 7.13.

### 5.3 General findings

- India's vast land area supports agriculture as a primary sector, but the economy is shifting toward services due to competitive labor costs in software.
- The cement industry faces challenges like high fuel prices and regulations but is growing through government infrastructure programs and technological adoption.
- JK Cement underperforms peers in net profit but shows moderate risk and strong returns, making it attractive for balanced investors.
- Macroeconomic stability is evident from rising forex reserves and controlled inflation, though trade deficits and income inequality persist.
- The company's debt-heavy structure increases financial risk, but premium valuation reflects investor confidence in future growth.
- Overall, the Indian economy's demographic strength and reforms position it for long-term growth, with the cement sector playing a foundational role.

### 5.4 Recommendation based on findings

- Investors should consider JK Cement for diversified portfolios due to its moderate beta and positive alpha, offering stability with growth potential.
- JK Cement should focus on cost reduction to improve net profit margins and align closer to peer averages.
- The government should incentivize secondary sector employment to balance economic reliance on primary and tertiary sectors.
- Enhance female and rural literacy programs to build a more skilled workforce for service and industrial sectors.
- JK Cement could expand sustainable practices, like renewable energy use, to mitigate environmental regulations and appeal to eco-conscious investors.
- Monitor trade deficits closely and promote export-oriented policies to reduce import dependency.

### 5.5 Suggestions for areas of improvement

- JK Cement should optimize inventory management to improve quick and cash ratios, reducing reliance on stock for liquidity.
- Reduce debt financing by strengthening equity base to lower debt-equity ratio and mitigate financial risks during downturns.
- Enhance asset utilization to boost asset turnover ratio beyond 0.74, increasing revenue generation efficiency in the capital-intensive cement industry.
- Address underperformance in net profit compared to peers by streamlining operational costs and supply chain.
- India should develop long-term plans for an aging population, including pension reforms



and healthcare investments.

- The cement industry could invest more in digital logistics and alternative fuels to counter high power and fuel prices.

## 5.6 Scope for future research

Future research could expand on this security analysis by incorporating real-time stock data beyond 2024-25, including quarterly updates for FY 2025-26, to assess post-pandemic recovery impacts on JK Cement's performance. Comparative studies with international cement firms could provide global benchmarks, while integrating ESG (Environmental, Social, Governance) metrics would evaluate sustainability's long-term financial implications. Additionally, econometric modeling of macroeconomic variables' influence on cement demand, such as GDP growth and infrastructure spending, could forecast industry trends. Exploring technological disruptions like AI in manufacturing or green cement innovations would offer insights into competitive advantages for firms like JK Cement in achieving India's \$5 trillion economy goal.

## 5.7 Conclusion

The security analysis of JK Cement Limited reveals a company with solid fundamentals, moderate risk, and growth potential within a thriving Indian cement industry, supported by a resilient national economy. Despite challenges like high debt and operational inefficiencies, JK Cement's premium valuation and strong ROE indicate market confidence, positioning it as a viable investment for balanced portfolios.

Overall, India's demographic strengths, infrastructure focus, and policy reforms underscore the cement sector's pivotal role in economic transformation, though addressing trade imbalances and sectoral employment shifts remains crucial for sustainable progress.

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### Notes:

1. **Source Details:** The document does not provide specific publication details such as publishers, DOIs, or exact publication dates beyond the years mentioned (e.g., 2023-24, 2024, 2025). I have inferred the most likely publishers or organizations based on the context provided (e.g., Reserve Bank of India for the *Handbook of Statistics on the Indian Economy*).
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