DEVELOPING AN INVESTMENT DECISION FRAMEWORK USING HISTORICAL STOCK MARKET DATA: A CASE STUDY OF ASIAN PAINTS LTD.

A Capstone Project submitted in partial fulfilment of the requirements for the Degree of

EXECUTIVE MASTER OF BUSINESS ADMINISTRATION

in

Data Science and Analytics

by

Mayank Sharma

Enrolment No.: 24/UEMBA/12

Under the Guidance of

Dr. Anurag Chaturvedi

USME DTU



University School of Management & Entrepreneurship

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Vivek Vihar, Phase-II, New Delhi – 110095, India

August 2026

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to everyone who contributed to the successful completion of this project, "developing an investment decision framework using historical stock market data: a case study of Asian Paints ltd".

First and foremost, I extend my heartfelt gratitude to my mentor, Prof. Anurag Chaturvedi, for his invaluable guidance, constructive feedback, and continuous support throughout this project coursework. His encouragement, insightful suggestions, and expertise played a significant role in shaping the direction and quality of this study.

I am also thankful to the University School of Management & Entrepreneurship, Delhi Technological University, for providing an enriching academic environment, essential resources, and the opportunity to undertake this project. The knowledge and skills acquired during the course have been instrumental in completing this project successfully.

I would also like to acknowledge the valuable insights shared by the industry experts who delivered lectures during our coursework. Their practical perspectives on finance, sustainability, governance, and policy broadened my understanding and provided meaningful context for this study.

I am grateful to the faculty members of the department for their support and guidance throughout the programme. I also appreciate my classmates and peers for their encouragement, discussions, and cooperation, which made the learning experience more enriching.

Finally, I express my deepest gratitude to my family for their unwavering support, patience, and encouragement throughout this journey. Their constant belief in me has been a source of strength and motivation.

This research project would not have been possible without the encouragement and support of all those who contributed directly or indirectly. I sincerely thank each one of them for being a part of this academic journey.

Name: Mayank Sharma

Roll No: 24/UEMBA/12

University School of Management & Entrepreneurship

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Vivek Vihar, Phase-II, New Delhi - 110095, India

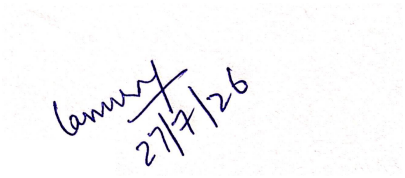
CANDIDATE'S DECLARATION

I, Mayank Sharma, hereby certify that the work which is being presented in this capstone project entitled "Developing an Investment Decision Framework Using Historical Stock Market Data: A Case Study of Asian Paints Ltd.", in partial fulfilment of the requirements for the award of the degree of Executive Master of Business Administration, submitted to the University School of Management & Entrepreneurship, Delhi Technological University, is an authentic record of my own work carried out during the period of the EMBA programme, under the guidance of the faculty guide named herein.

The matter presented in this project has not been submitted by me for the award of any other degree of this or any other Institute.

Candidate's Signature

This is to certify that the statement made by the candidate is correct to the best of our knowledge.



Signature of Faculty Guide

University School of Management & Entrepreneurship

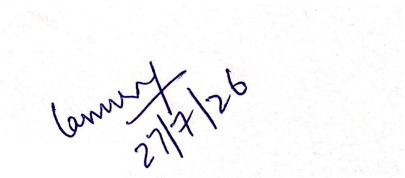
DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Vivek Vihar, Phase-II, New Delhi - 110095, India

CERTIFICATE BY THE GUIDE

Certified that Mayank Sharma, Enrolment No.: 24/UEMBA/12 has carried out the research work presented in this capstone project entitled "Developing an Investment Decision Framework Using Historical Stock Market Data: A Case Study of Asian Paints Ltd" for the award of the degree of Executive Master of Business Administration from the Delhi School of Management, Delhi Technological University, Delhi, under my supervision. The project embodies results of original work, and the studies were carried out by the candidate herself, and the contents of the project do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.



Signature

Dr. Anurag Chaturvedi

USME, Delhi Technological University

Date:

ABSTRACT

Investment decisions in the stock market require a systematic evaluation of both a company's financial performance and its historical market behaviour. Many investors rely on market sentiment or short-term price movements, which may lead to inconsistent investment outcomes. This study aims to develop an Investment Decision Framework by integrating fundamental analysis and technical analysis using Asian Paints Ltd. as the case study.

The research is based on 23 years of historical stock price data (July 2002–June 2023) obtained from Yahoo Finance and 10 years of financial statement data (FY2015–FY2024) collected from publicly available sources such as the company's annual reports and Screener.in. Fundamental indicators including Revenue Growth, Earnings Per Share (EPS), Price-to-Earnings (P/E) Ratio, and Return on Equity (ROE) were analyzed to assess the company's financial strength, profitability, and market valuation. Technical indicators such as Compound Annual Growth Rate (CAGR), Daily Return, Simple Moving Average (SMA-50), Annualized Volatility, Maximum Drawdown, and Average Trading Volume were calculated to evaluate long-term stock performance, market trends, and investment risk.

The findings indicate that Asian Paints has consistently demonstrated strong financial performance, sustained profitability, efficient utilization of shareholders' equity, and significant long-term wealth creation despite periods of market volatility. The study concludes that combining fundamental and technical indicators provides a more comprehensive and objective approach to investment decision-making than relying on a single method.

The proposed investment framework can assist investors, financial analysts, researchers, and students in evaluating investment opportunities using historical data and financial metrics. It also highlights the growing importance of data analytics and analytical tools such as Python, Microsoft Excel, and Power BI in supporting evidence-based financial decision-making.

TABLE OF CONTENT

Acknowledgement	2
Candidate's Declaration	3
Certificate by the Guide	4
Abstract	5
Chapter 1: Introduction & Background	7
Chapter 2: Problem Statement & Research Objectives	8
Chapter 3: Literature Review	10
Chapter 4: Company & Industry Analysis	12
Chapter 5: Financial Data & Ratio Analysis	18
Chapter 6: Financial Indicator Calculations	23
Chapter 7: Summary of Financial & Technical Indicators	30
Chapter 8: Limitations of the Study	31
Chapter 9: Future Scope of the Study	32
Chapter 10: Conclusion & Social Impact	33
References	34

CHAPTER 1

INTRODUCTION & BACKGROUND

The Indian equity market has become one of the fastest growing markets globally. The retail and institutional investors' participation in Indian stock market has been on the rise in recent years. Greater accessibility of online trading platforms and financial reports helped investors to create wealth in long term by investing in stocks. However, relying just on market sentiment, or short-term movement in share price, does not produce consistent results. Thus, a scientific approach considering both accounting performance of a firm and past market behavior will be more beneficial for prudent investors.

Two basic approaches in the analysis of investment are fundamental analysis and technical analysis. Fundamental analysis involves study of accounting ratios of a company such as EPS, P/E ratio, Revenue growth, return on equity (ROE) etc. to calculate the intrinsic value of the company's equity. On the other hand, technical analysis focuses on study of past price movement and trends in a stock and assesses the risk (measured with aid of CAGR, Moving average, volatility and maximum decline). Together the Fundamental and Technical Analysis offers complete picture of stock's investment appeal.

The company chosen for the case study in this report is Asian Paints Ltd. as it is the leader in the Indian paint industry, it has demonstrated consistent financial performance, possessed huge brand value and has constantly been generating shareholder wealth. The market leadership has been backed by R&D efforts, an large network of distributors, and a steady increase in business, resulting in making it a perfect candidate for long-term investments.

Approximately two decades (July 2002–June 2023) of data pertaining to stock prices and selected fundamental metrics of Asian Paints have been analyzed to gauge the company's overall performance from an investment and risk-return point of view. This research provides insight into developing a structured Investment Decision Framework using both fundamental and technical approaches to help investors take data-driven decisions rather than emotions or trend-based choices.

The results of this paper should provide valuable insights into conversion of past stock performance along with selected financial indicators into investment decisions. The model designed in this research may serve as useful model for the evaluation of other companies in Indian stock market. This research has highlighted how data analysis is increasingly becoming indispensable in today's decision-making processes.

CHAPTER 2

PROBLEM STATEMENT & RESEARCH OBJECTIVES

2.1 Problem Statement

Despite significant expansion in Indian stock market over last two decades, most retail investors in India make short term decisions using news sentiment, rumors, speculation or about only movement in share price in Indian equity markets instead of systematic data analysis to gain extra returns from long term investments. A lot of investors take long-term and fundamental decisions also by ignoring crucial factors such as long-term trend in share price, fundamental business of the company, market risk and valuation.

A comprehensive investment decision implies the blend of fundamental analysis that invests the intrinsic value of a firm's financial and technical analysis that is rooted in analysis of past share price movement history of a company. Fundamental analysts look at a company's cash inflows and out flow, valuation measures, the intrinsic value, etc. Retail investors are mostly inclined to either one type of analysis or other which often leads to missing out on an inherent investment opportunity.

A case for a long-term investment performance of a company can be beautifully exhibited with that of Asian Paints Ltd. the company being a major paint manufacturing company of India and an important component of NIFTY 50, has shown excellent business performance, excellent financials and remarkable increase in its share price during the last 2 decades.

This study bridges the gap by linking the past stock price with the fundamental and technical indicators to have a solid investment decision model rather than only market price movement.

2.2 Research Questions

The study attempts to answer the following research questions:

1. What is the 2-decade investment performance of Asian Paints?
2. How would one understand the trend, risk and market behavior from the past share price movement?
3. What role do selected fundamental indicators and technical indicators have in the evaluation of the investment attractiveness of Asian Paints?
4. Can a data-driven approach to combine past history of stock prices, fundamental data and technical indicators be helpful for better investment decisions?
5. What investment suggestion can one infer from the investment decision framework for long-term investors?

2.3 Research Objectives

The primary objective of the project is to create a data driven investment decision model using the historical stock prices of Asian Paints Ltd.

Specific objectives are: -

- to understand the two decades long-term historical stock price behavior of Asian Paints.
- to assess the financial performance of the company based on certain fundamental indicators (EPS, P/E, revenue growth rate, return on equity etc.).
- to understand various technical indicators (CAGR, moving average, volatility, Max. Drawdown and Trading volume etc.).
- to explore the relationship between stock prices and company fundamentals.
- to develop an investment decision model, which will integrate both fundamental and technical analysis.
- to give practical suggestions to the long-term investor based on the above framework.

2.4 Scope of the Study

Asian Paints Ltd., India's biggest paint manufacturing company listed on the National Stock Exchange (NSE), is the sole company considered for this analysis.

Scope: Daily prices from July 2002 to June 2023.

21years of daily stock prices data, alongside key fundamental ratios from publicly available reports along with technical indicators derived from past stock prices are analyzed in this study.

Aim is to establish a framework for determining attractiveness for the long-run investments in Asian Paints.

No attempt has been made in this study to forecast stock prices. The data analyzed is based on past performance to aid long-run investment decisions.

CHAPTER 3

LITERATURE REVIEW

3.1 Historical Stock Market Analysis

Looking at how the stock market has performed historically is one of the most widely accepted ways of judging whether investments have been successful and of spotting long-term trends in the market. It has been demonstrated that understanding how historical stock returns have evolved, together with how trading volumes have behaved, aids in the formulation of stock investment decisions. Since past returns provide no assurance of what is to come, they remain a valuable tool for gaining insight into long-term market behavior, including the extent of long-term swings and bull and bear markets. Several studies indicate that the careful study of stock returns series enhances the investor's investment discipline and helps avoid decisions based purely on speculation.

3.2 Fundamental Analysis

Fundamental analysis considers measures of a company's financial and business condition in order to value security. Benjamin Graham, the father of value investing, introduced this method with emphasis on valuing the firm's financials and not the market. This approach has gained popularity with use of a wide variety of accounting ratios, such as EPS, P/E, ROE, revenue growth and profitability. Multiple empirical studies have identified that with the above measures, firms that are better-valued have better, longer-term shareholder returns.

3.3 Technical Analysis

Historical price movements are considered an aid to predict the future directions of the market technical analysts. It started in 1900, when Charles Dow introduced Dow theory which became the rudimentary form of technical analysis. It took the shape of many forms of technical analysis, ranging from very fundamental tools like Moving Average, to momentum indicators such as Relative Strength Index (RSI), Moving Average Convergence Divergence (MACD), Volatility and trading volume etc. The previous studies indicated, technical indicators performed best when used with fundamental, mainly accounting analysis.

3.4 Risk and Return Analysis

Investors are required to trade-off expected returns against risk associated with the return. Modern Portfolio Theory of Harry Markowitz stressed that before choosing an investment the investor should assess both the expected return and the associated risk. Historically, a broad range of studies have sought to quantify investment performance in the long run by measuring indicators such as Compound Annual Growth Rate (CAGR), Average Annual Volatility, Maximum draw-downs and mean returns. A number of studies conclude that those investors who account for both risk and return have tended to achieve a better result compared to those that are only interested in prices.

Literature Summary

Author/Study	Key Contribution	Relevance to Present Study
Benjamin Graham & David Dodd	Introduced value investing and fundamental analysis	Supports the use of EPS, P/E Ratio, and ROE
Charles Dow	Developed the foundation of technical analysis	Supports Moving Averages and trend analysis
Harry Markowitz	Modern Portfolio Theory linking risk and return	Supports volatility and drawdown analysis
Eugene Fama	Efficient Market Hypothesis	Provides a theoretical perspective on market efficiency
Indian Paint Industry Reports	Growth driven by urbanization and housing demand	Provides industry context for Asian Paints
Financial studies on Asian Paints	Demonstrated consistent growth and shareholder value	Justifies the selection of Asian Paints as the case study

CHAPTER – 4

COMPANY AND INDUSTRY ANALYSIS

4.1 Introduction to the Indian Paint Industry

The Indian paint industry is one of the fastest growing areas of the country's chemicals and construction industry. Indian paint industry can be broadly classified into two types.

1. decorative paints: nearly 70-75% of the Indian Paint industry
    - used in houses & commercial buildings for outside and inside coating
    - used for automobiles and various industries like
    - machinery coatings
    - infrastructure coating
    - marines coating
    - Protective coatings
    - General industrial coating

2. Industrial points: nearly 25-30% of the market
    - used on houses & commercial buildings for outside and inside coating
    - used in industries like automobiles, industries such as machinery coatings, infrastructure coatings, marine coating, protective coatings and general industrial coatings

The Factors that drive growth in Indian Paint Industry

1. Urbanization
2. Growing incomes
3. Housing
4. Remodeling of home
5. Boom in commercial real estate
6. Infrastructure growth
7. premium and eco-friendly paints

4.2 Market Size and Growth

India is among the fastest growing paint markets in the world. While the organized players account for the largest share of the paint market, a significant part of the industry still comes from unorganized players. However, consumer are gradually migrating to organized players with awareness about better quality and distribution by players like paint companies, better marketing by players like paint companies.

Some of the key characteristics of this industry are: (

1. The market is predominantly dominated by decorative paints, accounting for more than three quarters of its revenue streams.
2. With growth in the rural market, with a greater number of new house being built, the unorganized sector in rural area may potentially gain
3. The value segment, particularly premium products as waterproofing solutions, texture finishes, luxuries and smart coatings is booming.
4. Also repainting cycles are increasing on account of increased consumption and increasing aesthetic sense of customers

4.3 Company Profile – Asian Paints Limited



Asian Paints Limited is India's leading paint maker and one of the leading paints companies of the world. The paints major was set up in 1942 by four entrepreneurs in Mumbai in 1942. Ever since 1967 it was continuously India's no. one and Asia's no. three paint company.

Over time, the paint manufacturing company turned into a home decor and improvement company by entering a wide array of businesses:

1. Decorative Paints
2. Industrial Coatings
3. Water Proofing
4. Adhesives
5. Wood Fainishes
6. Bath Fittings
7. Modular Kitchen
8. Furniture
9. Decorative Light
10. Wall Coverings
11. Home Decor Services

The paint making company has presence in over 65 countries, it has over 25 factories globally and it employs 16500 people globally. The company ranks as top paints companies globally (2nd in Asia and top 10 globally by coatings volumes).

4.4 Business Segments

Asian Paints is engaged in four main segments.

1. Decorative Paints

Decorative Paints is the main segment that accounts for a share of around 87% of the company's revenue from this segment.

This business segment produces the following products:

- Interior emulsions
- Exterior emulsions
- Enamels

- Primers
- Wood finishes
- Metal paints
- Waterproofing products
- Adhesives

2. Industrial Coatings

Asian Paints manufactures and markets industrial coatings through joint ventures with PPG Industries. The joint ventures manufacture the following industrial coating products:

- Automotive coatings
- Protective coatings
- Powder coatings
- Industrial coatings

3. International Business

Asian Paints operates internationally, in several parts of Asia, Africa, Middle East and Pacific through Asian Paints itself and a series of regional entities that operate their own brands.

4. Home Décor

It has also ventured into:

- Beautiful Homes stores
- Modular kitchens
- Bath fittings
- Decorative lighting
- Furniture
- Wall coverings

The home improvement products provide a good alternative for a decline in revenue from paint sale.

4.5 Manufacturing and Distribution Network

The strength of the Asian Paints lies in its very large manufacturing and distribution network.

Some of the key points are:

1. It has over 25 manufacturing facilities worldwide
2. It is present in over 65 countries
3. 169000 retail touch points across India
4. A very large dealer and distribution network
5. An extremely strong supply chain logistics infrastructure.

The strength of the company lies in the fact that the company has excellent technology and the largest distribution network and hence gives the company a very large competitive edge and enables rapid retail availability in all urban and semi-urban centers.

4.6 Competitive Landscape

Paint industry in India is highly competitive,

Company	Primary Business	Position
Asian Paints	Decorative & Industrial Paints	Market Leader
Berger Paints	Decorative Paints	Second Largest
Kansai Nerolac	Industrial & Decorative Paints	Strong Automotive Presence
Akzo Nobel India (Dulux)	Premium Decorative Paints	Premium Segment
Indigo Paints	Decorative Paints	Fast Growing
Birla Opus	Decorative Paints	New Aggressive Entrant
JSW Paints	Decorative & Industrial Paints	Emerging Player

The launch of Birla Opus in recent years further increased the competition, due to rising capacity and pricing

4.7 SWOT Analysis

Strengths	Weaknesses
Dominant market position in India	Highly valuated
High brand reputation	Extensive dependence on decorative paints
Large dealer network	Raw material price sensitivity
Diversified products	High competitive forces
Exemplary financial performance	Slow international contribution
Opportunities	**Threats**
Smart Cities and Infrastructure	New aggressive players in the industry
Increasing housing demand	Increasing competition due to new launches in paint
Increasing demand for premium products	Hike in raw material costs
Growth in the home décor segment	Decreasing economic conditions
Penetrating into rural markets	Changes in regulations

4.8 Porter's Five Forces Analysis

Force	Impact
Threat of New Entrants	Medium
Power of Suppliers	Medium
Power of Buyers	High
Threat of Substitutes	Low
Industry of Competitors	High

Increased competition, in terms of increased intensity, with new large players also entering, indicates importance of marketing efforts, brands and distribution capability.

CHAPTER – 5

FINANCIAL DATA AND RATIO ANALYSIS

5.1 Financial Data Used for the Study

The analysis has been conducted over the long term, and it has been made using the data available from stock market and company's financial statement, to analyze the financial performance of Asian Paints Ltd. Analysis is conducted to evaluate the long term stock price performance and analysis of firm's financial health and its operational efficiency.

For this research, the authors use two different dataset. One is based on history stock market data other is based on data available from annual report of company.

1. Historical Stock Price Data for 23 years (2002–2023)

This section deals with stock market return data. We use dataset from Yahoo Finance containing around 23-year stock prices data (from 07–2002 to 6–2023), and daily observation for which it has following data

- Date
- Opening Price
- Highest Price
- Lowest Price
- Closing Price
- Adjusted Closing Price
- Trading Volume
- Volume Weighted Average Price (VWAP)

Stock market return data is used to compute other technical performance indicators.

1. Compound Annual Growth Rate (CAGR)
2. Daily return on the stock
3. Simple Moving Average (SMA) of 50 days
4. Annualized Volatility
5. Maximum drawdown
6. Trading Volume Analysis

The length of the history of the time series allows us to analyze all major market cycles, bull, bear markets, boom, recessions, etc. including the COVID pandemic; giving a thorough insight into the long-term performance of the stock of the company.

2. Financial Ratio Analysis

A popular tool for analysis of company's performance is financial ratio analysis. It takes accounting data and gives some meaning to that; provides insight of how a company is performing by comparing it over time or by comparing it with peers, investors can find information on profitability, operational effectiveness, growth potential and market valuation.

Here we report the value of these various parameters for Asian Paints Ltd.

Here is the snapshot of financial data:

Date	Open	High	Low	Close	Adj Close	Volume	VWAP
2/7/2002	21.37	22.783	21.37	22.52	16.79433	588615	22.22433
3/7/2002	22.267	22.8	21.933	22.733	16.95317	162075	22.48867
4/7/2002	22.667	23.333	22.667	22.967	17.12768	266625	22.989
5/7/2002	23.4	25	23.333	24.057	17.94055	408600	24.13
8/7/2002	24.003	24.867	24.003	24.503	18.27315	165600	24.45767
9/7/2002	24.4	24.64	24	24.307	18.12699	74835	24.31567
10/7/2002	24.003	24.6	23.747	24.463	18.24333	93675	24.27
11/7/2002	24.267	24.267	22.4	24.057	18.21354	61380	23.57467
12/7/2002	24.333	24.333	23.667	23.807	18.02427	63405	23.93567
15-07-2002	24.133	24.133	23.053	23.233	17.5897	42795	23.473
5/6/2023	3239.95	3239.95	3195	3199.75	3178.583	492565	3211.567
6/6/2023	3207.75	3238.9	3195	3212.75	3191.497	577698	3215.55
7/6/2023	3217	3229.25	3206.25	3224.8	3203.467	470038	3220.1
8/6/2023	3220	3247	3193	3212.25	3191	561161	3217.417
9/6/2023	3209.8	3238.9	3168.55	3180.55	3180.55	1239045	3196
12/6/2023	3185.2	3202.35	3151.15	3194.75	3194.75	1029156	3182.75
13-06-2023	3210	3272	3205.15	3262.85	3262.85	1598821	3246.667
14-06-2023	3265	3289.9	3253	3270.2	3270.2	741615	3271.033
15-06-2023	3276	3304	3273.35	3294.35	3294.35	806994	3290.567
16-06-2023	3291.75	3322	3286.55	3316.85	3316.85	984671	3308.467
19-06-2023	3318.85	3344.95	3303.25	3309.7	3309.7	516915	3319.3
20-06-2023	3315	3326.85	3277.1	3318.7	3318.7	866290	3307.55
21-06-2023	3318.7	3333	3300	3316.1	3316.1	742456	3316.367
22-06-2023	3325	3326.85	3242.45	3248.05	3248.05	871640	3272.45
23-06-2023	3265	3304.15	3253.05	3297.7	3297.7	1260659	3284.967

Balance Sheet

Consolidated Figures in Rs. Crores / View Standalone

CORPORATE ACTIONS

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025	Mar 2026
Equity Capital	96	96	96	96	96	96	96	96	96	96	96	96
Reserves	4,646	6,429	7,508	8,314	9,375	10,034	12,710	13,716	15,896	18,632	19,304	21,276
Borrowings +	418	323	560	533	1,320	1,118	1,093	1,587	1,933	2,474	2,290	3,929
Other Liabilities +	3,754	3,711	4,241	4,820	5,459	4,889	6,456	7,560	7,854	8,698	8,665	9,218
Total Liabilities	**8,914**	**10,559**	**12,405**	**13,763**	**16,249**	**16,138**	**20,355**	**22,958**	**25,779**	**29,901**	**30,355**	**34,519**
Fixed Assets +	2,660	3,416	3,304	3,732	6,497	6,272	5,859	5,519	5,770	7,147	9,220	9,640
CWIP	196	107	258	1,405	210	140	183	426	1,020	2,698	1,254	1,849
Investments	1,588	2,712	2,652	2,141	2,569	2,019	4,737	3,248	4,262	4,588	4,725	7,062
Other Assets +	4,471	4,324	6,192	6,485	6,974	7,707	9,577	13,765	14,728	15,468	15,156	15,968
Total Assets	**8,914**	**10,559**	**12,405**	**13,763**	**16,249**	**16,138**	**20,355**	**22,958**	**25,779**	**29,901**	**30,355**	**34,519**

Profit & Loss

Consolidated Figures in Rs. Crores / View Standalone

RELATED PARTY PRODUCT SEGMENTS

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025	Mar 2026
Sales +	13,615	14,271	15,062	16,825	19,240	20,211	21,713	29,101	34,489	35,495	33,906	35,584
Expenses +	11,372	11,546	12,068	13,621	15,475	16,049	16,857	24,298	28,229	27,910	27,899	28,884
Operating Profit	**2,243**	**2,725**	**2,994**	**3,204**	**3,765**	**4,162**	**4,856**	**4,804**	**6,260**	**7,585**	**6,006**	**6,700**
OPM %	16%	19%	20%	19%	20%	21%	22%	17%	18%	21%	18%	19%
Other Income +	142	213	338	336	274	350	332	296	431	821	350	728
Interest	42	49	37	41	110	102	92	95	144	205	227	195
Depreciation	266	276	335	360	622	780	791	816	858	853	1,026	1,229
Profit before tax	**2,077**	**2,614**	**2,960**	**3,138**	**3,306**	**3,629**	**4,304**	**4,188**	**5,689**	**7,348**	**5,103**	**6,003**
Tax %	31%	32%	32%	33%	33%	24%	26%	26%	26%	24%	27%	27%
Net Profit +	**1,427**	**1,803**	**2,016**	**2,098**	**2,208**	**2,774**	**3,207**	**3,085**	**4,195**	**5,558**	**3,710**	**4,395**
EPS in Rs	14.54	18.19	20.22	21.26	22.48	28.20	32.73	31.59	42.81	56.92	38.23	45.09
Dividend Payout %	42%	41%	51%	41%	47%	43%	55%	61%	60%	58%	65%	61%

Cash Flows

Consolidated Figures in Rs. Crores / View Standalone

	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025	Mar 2026
Cash from Operating Activity +	1,188	2,243	1,527	2,113	2,470	3,038	3,683	986	4,193	6,104	4,424	7,088
Cash from Investing Activity +	-465	-866	-681	-1,556	-918	-518	-541	-317	-1,282	-2,548	-941	-1,328
Cash from Financing Activity +	-576	-849	-756	-1,379	-1,117	-2,871	-650	-1,808	-2,140	-2,982	-3,753	-2,377
Net Cash Flow	**147**	**528**	**90**	**-822**	**434**	**-351**	**2,492**	**-1,138**	**771**	**573**	**-270**	**3,383**
Free Cash Flow	750	1,441	860	705	1,336	2,661	3,422	475	2,774	3,613	2,604	5,604
CFO/OP	81%	112%	82%	100%	92%	97%	98%	45%	91%	105%	97%	129%

5.2. Financial Indicators Used in the Study

Indicator	Category	Description	Purpose in the Study
Revenue Growth (%)	Fundamental	Measures the year-over-year percentage increase or decrease in the company's sales revenue.	To evaluate the company's business growth and market expansion over time.
Earnings Per Share (EPS)	Fundamental	Indicates the amount of net profit earned for each outstanding equity share. It reflects the company's profitability from a shareholder's perspective.	To assess profitability and value created for shareholders.
Price-to-Earnings (P/E) Ratio	Fundamental / Market	Measures the relationship between the market price of a share and its earnings per share.	To evaluate whether the stock is fairly valued, overvalued, or undervalued by investors.
Return on Equity (ROE)	Fundamental	Measures the company's ability to generate profits using shareholders' equity.	To assess management efficiency in utilizing shareholders' funds.
Compound Annual Growth Rate (CAGR)	Investment Performance	Represents the average annual growth rate of the company's stock price over the study period, considering the effect of compounding.	To measure long-term shareholder wealth creation and investment performance.
Simple Moving Average (SMA-50)	Technical	Calculates the average stock price closing over the previous 50 trading days to identify the overall market trend.	To determine long-term price trends and support buy/sell decisions.
Daily Return	Technical	Measures the percentage change in the stock's closing price from one trading day to the next.	To analyze short-term stock price performance and market behavior.
Annualized Volatility	Risk	Measures the degree of fluctuation in stock returns over a year. Higher volatility indicates greater investment risk.	To evaluate the risk associated with investing in Asian Paints shares.

Maximum Drawdown	Risk	Represents the largest decline in the stock price from its highest point to its lowest point during the study period.	To assess the maximum downside risk faced by investors.
Trading Volume	Market Activity	Represents the total number of shares traded during a specific period.	To analyze investor participation and market liquidity.

CHAPTER – 6

FINANCIAL INDICATOR CALCULATIONS

The financial and technical indicators were calculated using the historical stock price data (July 2002–June 2023) and the financial statements (FY2015–FY2024) of Asian Paints Ltd. These indicators evaluate the company's profitability, growth, market valuation, and investment risk.

6.1 Revenue Growth

Formula = (Current Year Revenue - Previous Year Revenue)/ Previous Year Revenue ×100

Example Calculation (FY 2024)

Current Year Revenue = ₹35,495 Crore

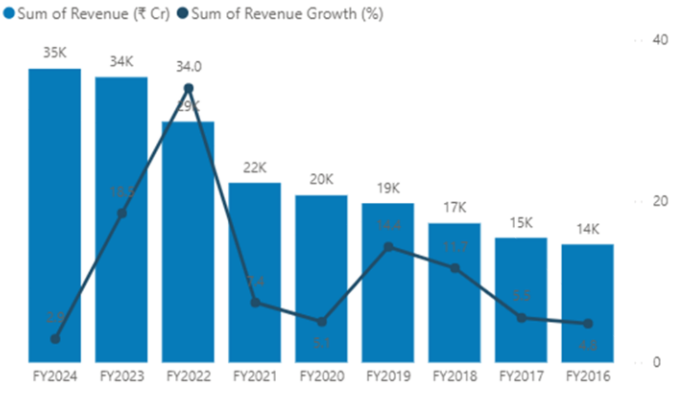
Previous Year Revenue = ₹34,489 Crore

= (35495-34489)/34489×100 = 2.92%

Interpretation

Revenue Growth measures the percentage increase or decreases in a company's sales compared to the previous financial year. A growth rate indicates business expansion and increased market demand, while a negative growth rate reflects a decline in sales.

Financial Year	Sum of Revenue (₹ Cr)	Sum of Revenue Growth (%)
FY2016	14271.0	4.8
FY2017	15062.0	5.5
FY2018	16825.0	11.7
FY2019	19240.0	14.4
FY2020	20211.0	5.1
FY2021	21713.0	7.4
FY2022	29101.0	34.0
FY2023	34489.0	18.5
FY2024	35495.0	2.9



6.2 Earnings Per Share (EPS)

Formula = Net Profit /Number of Outstanding Equity Shares

Example Calculation (FY 2024)

Net Profit (FY2024) = ₹5,558 Crore

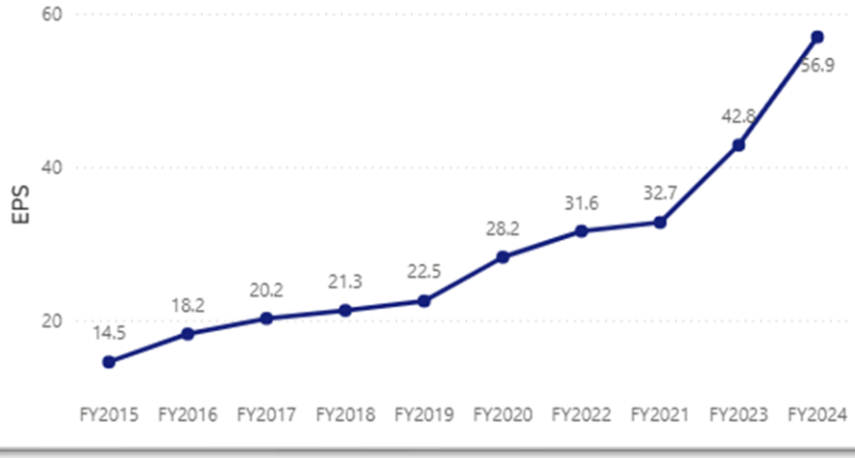
Outstanding Shares = 97.6 Crore

EPS = ₹56.92

Interpretation

Earnings Per Share represents the profit earned for each outstanding equity share. A higher EPS indicates stronger profitability and greater value creation for shareholders.

Financial Year	EPS
FY2015	14.5
FY2016	18.2
FY2017	20.2
FY2018	21.3
FY2019	22.5
FY2020	28.2
FY2021	32.7
FY2022	31.6
FY2023	42.8
FY2024	56.9



6.3 Price-to-Earnings (P/E) Ratio

Formula = Market Price per Share / Earnings Per Share

Example Calculation (FY 2024)

Market Price (FY2024) = ₹2,890

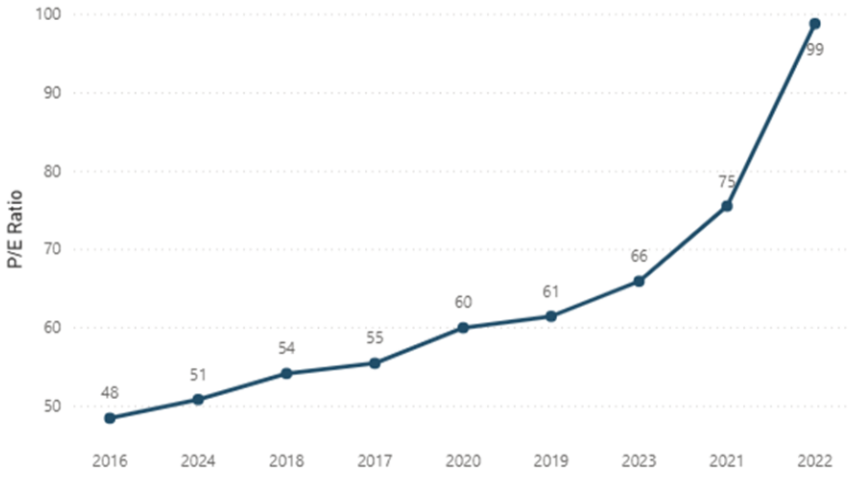
EPS = ₹56.92

P/E Ratio = 2,890 / 56.92 = 50.77

Interpretation

The P/E Ratio indicates how much investors are willing to pay for each rupee of earnings. A higher P/E ratio generally reflects strong growth expectations and investor confidence.

FY	Sum of P/E
2022	98.77
2021	75.47
2023	65.87
2019	61.39
2020	59.93
2017	55.39
2018	54.09
2024	50.77
2016	48.38
Total	**570.06**



6.4 Return on Equity (ROE)

Formula = (Net Profit / Average Shareholders' Equity) × 100

Example Calculation (FY 2024)

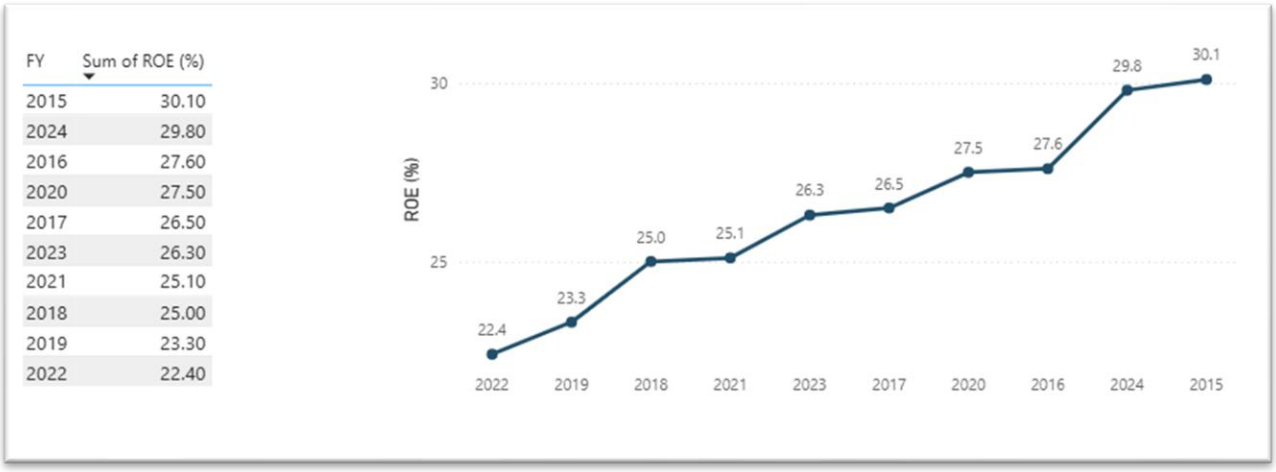
Net Profit = ₹5,558 Crore

Average Shareholders' Equity = ₹18,650 Crore

ROE = (5,558 / 18,650) × 100 = 29.8%

Interpretation

Return on Equity measures how efficiently a company generates profits from shareholders' investments. A consistently high ROE indicates effective utilization of shareholders' funds.



FY	Sum of ROE (%)
2015	30.10
2024	29.80
2016	27.60
2020	27.50
2017	26.50
2023	26.30
2021	25.10
2018	25.00
2019	23.30
2022	22.40

6.5 Compound Annual Growth Rate (CAGR)

Formula = (Ending Price / Beginning Price) ^(1/n) − 1) × 100

Where:

- Beginning Price = ₹20.77
- Ending Price = ₹3,297.70
- n = 21 Years

Example Calculation (FY 2024)

CAGR = (3,297.70 / 20.77) ^ (1/21) − 1) × 100 = 26.84%

Interpretation

Compound Annual Growth Rate represents the average annual growth rate of an investment over a specified period while considering the effect of compounding.

6.6 Daily Return

Formula = Daily Return (%) = (Today's Closing Price − Previous Day's Closing Price) / Previous Day's Closing Price) × 100

Example Calculation

Today's Closing Price = ₹100

Previous Day's Closing Price = ₹99

Daily Return = (100 − 99) / 99) × 100 = 1.01%

Interpretation

Daily Return measures the percentage change in stock price from one trading day to the next and is used to evaluate short-term price movements.

6.7 Simple Moving Average (SMA-50)

Formula = Sum of Closing Prices for Last 50 Trading Days / 50

Example Calculation

Sum of Closing Prices (50 Days) = ₹154,663

SMA-50 = 154,663 / 50 = ₹3,093.26

Interpretation

The 50-day Simple Moving Average smooths daily price fluctuations and helps identify the medium-term market trend.

6.8 Annualized Volatility

Formula = Daily Standard Deviation × √252

Example Calculation

Daily Standard Deviation = 1.57%

Annualized Volatility = 1.57 × √252 = 24.90%

Interpretation

Annualized Volatility measures the level of risk associated with a stock by estimating the variation in returns over one year. Higher volatility indicates greater investment risk.

6.9 Maximum Drawdown

Formula = ((Lowest Price after Peak − Peak Price) / Peak Price) × 100

Example Calculation

Peak Price = ₹3,560

Lowest Price after Peak = ₹1,960

Maximum Drawdown = (1,960 − 3,560) / 3,560) × 100 = −44.94%

Interpretation

Maximum Drawdown measures the largest decline in stock price from its highest point to its subsequent lowest point during the study period. It indicates the maximum downside risk faced by investors.

6.10 Average Trading Volume

Formula = Total Trading Volume / Number of Trading Days

Example Calculation

Total Trading Volume = 4,528,882,000 Shares

Total Trading Days = 5,222

Average Trading Volume = 4,528,882,000 / 5,222 = 867,464 Shares per Day

Interpretation

Average Trading Volume measures the average number of shares traded each day. A higher trading volume indicates strong market liquidity and active investor participation.

CHAPTER – 7

SUMMARY OF FINANCIAL & TECHNICAL INDICATORS

Indicator	Category	Benefits Achieved
Revenue Growth (%)	Fundamental	Help evaluate the company's growth trajectory, market demand, and ability to generate sustainable sales over time.
Earnings Per Share (EPS)	Fundamental	Indicates the company's profitability, earnings strength, and value created for shareholders.
Price-to-Earnings (P/E) Ratio	Fundamental	Assist in determining whether the stock is fairly valued, undervalued, or overvalued and reflects investor expectations.
Return on Equity (ROE)	Fundamental	Evaluates management effectiveness, capital utilization, and the company's ability to create shareholder value.
Compound Annual Growth Rate (CAGR)	Technical / Investment Performance	Assesses long-term investment performance and demonstrates the wealth creation potential of the stock.
Daily Return	Technical	Helps analyze short-term price movements, market behaviour, and return consistency.
Simple Moving Average (SMA-50)	Technical	Assists investors in identifying trend direction and potential buying or selling opportunities.
Annualized Volatility	Risk	Evaluates investment risk, price stability, and uncertainty associated with the stock.
Maximum Drawdown	Risk	Quantifies the maximum downside risk and helps investors understand potential capital loss during adverse market conditions.
Average Trading Volume	Market Activity	Indicates market liquidity, investor participation, and ease of buying or selling the stock without significantly affecting its price.

CHAPTER – 8

LIMITATION OF THE STUDY

Every research study has certain limitations that may influence the interpretation of the findings. The present study on Asian Paints Ltd. is subject to the following limitations:

8.1 Company-Specific Analysis

The study is limited to Asian Paints Ltd.; therefore, the findings and conclusions may not be directly applicable to other companies operating in the paint industry or other sectors. Different companies have distinct business models, financial structures, and market dynamics that may produce different results.

8.2 Historical Data Dependency

The analysis is based on historical stock price data (2002–2023) and financial statement data (FY2015–FY2024). Since historical performance does not guarantee future outcomes, unexpected economic events or changes in market conditions may influence future stock performance differently.

8.3 Limited Financial Indicators

The study focuses on selected financial indicators such as Revenue Growth, Earnings Per Share (EPS), Price-to-Earnings (P/E) Ratio, and Return on Equity (ROE). Other important indicators, including Debt-to-Equity Ratio, Return on Assets (ROA), Free Cash Flow, and Dividend Yield, were not included due to the defined scope of the study.

8.4 Limited Technical Indicators

Only selected technical indicators, namely Compound Annual Growth Rate (CAGR), Daily Return, Simple Moving Average (SMA-50), Annualized Volatility, Maximum Drawdown, and Average Trading Volume, were analyzed. Advanced indicators such as Relative Strength Index (RSI), Moving Average Convergence Divergence (MACD), Bollinger Bands, and Average True Range (ATR) were not considered.

CHAPTER – 9

FUTURE SCOPE OF THE STUDY

The above study has laid a foundation for evaluation of long duration investment of Asian Paints Ltd. However there is a scope for further improvement and expansion of this work.

9.1 Industry Comparison

Comparison study of Asian Paints with all major paints companies like Berger Paints, Kansai Nerolac, Indigo Paints and Akzo Nobel India will enable to get an in – depth knowledge on position of Asian Paints with respect to other competitors. This will lead to know the trend and performance of whole paint industry.

9.2 Extra Financial Ratio

The study can be amplified by including extra financial indicators like Return on Assets (ROA), Debt/equity ratio, Current ratio, Quick ratio, Free cash flow, Dividend yield, Interest coverage ratio and many more.

9.3 Complex Chart Analysis

Investigation can be done by including more advance technical indicators, such as Fibonacci levels (62 percent etc.), moving averages for 50, 100 and 200 days in charts, moving averages using SMA, Exponential MA, MACD, RSI, ADX, Bollinger Bands, etc. for a more effective signal generation and stock picking.

9.4 Artificial Intelligence and Predictive Modeling

Incorporation of contemporary analytical technique like AI, Machine learning and time series forecasting will make it easier to predict future stock prices and pick out stocks with maximum potential for return. Example is ARIMA, ARIMA (LSTM), XGboost, etc.

9.5 Portfolio Diversification

The investigation may be extended to construct an efficient diversified investment portfolio rather than just considering single stock using Modern portfolio theory, Capital asset pricing model and multi factor models.

CHAPTER – 10

CONCLUSION AND SOCIAL IMPACT

Conclusion

This report examines Asian Paints using financial statements of ten years (from 2015–2024) and stock data of twenty-three years (from 2002–2023). Financials statements show Asian Paints having continuously robust revenue growth, steadily rising profit margins, effective deployment of shareholder funds, and continuous long term value addition to shareholders. Financial ratios such as revenue CAGR, daily return, moving averages of fifty day, year-on-year volatility, draw down, trading volume, etc provide insights about company performance and investment risk. Analysis of stock prices and accounting data with respect to performance and risk indicates that the inclusion of both the financial and technical parameters would lead to thorough analysis of stocks. A framework based on both fundamental and technical parameters would serve as a good resource for systematic investing decisions.

Social Impact

The study helps promoting financial literacy and evidence-based stock and share market investing by describing application of accounting ratios and technical indicators of listed company of the investors. It encourages the investors to use logic, analysis and judgement for investment decisions as opposed to the conventional speculation rather than relying on speculation. Moreover, the study elaborately illustrates the use of various tools for financial analysis that are python, Excel, PowerBI and other software and highlights the growing relevance of data analytical techniques in modern finance for corporate financial analysis. Additionally, the model can be employed for the screening of organizations of numerous sectors to make systematic investments.

REFERECES

1. Asian Paints Limited. (2024). *Annual Report 2023–24*. https://www.asianpaints.com
2. Asian Paints Limited. (2025). *Annual Report 2024–25*. https://www.asianpaints.com
3. Brigham, E. F., & Ehrhardt, M. C. (2020). *Financial Management: Theory & Practice* (16th ed.). Cengage Learning.
4. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance, 25*(2), 383–417.
5. Graham, B., & Dodd, D. L. (2008). *Security Analysis* (6th ed.). McGraw-Hill Education.
6. Hull, J. C. (2021). *Risk Management and Financial Institutions* (6th ed.). Wiley.
7. Markowitz, H. (1952). Portfolio selection. *The Journal of Finance, 7*(1), 77–91.
8. National Stock Exchange of India Limited. (2025). *Historical Market Data*. https://www.nseindia.com
9. Reserve Bank of India. (2024). *Annual Report 2023–24*. https://www.rbi.org.in
10. Screener.in. (2025). *Asian Paints Ltd. – Financial Statements and Ratios*. https://www.screener.in
11. Securities and Exchange Board of India. (2025). *SEBI Annual Report*. https://www.sebi.gov.in
12. Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance, 19*(3), 425–442.
13. Yahoo Finance. (2025). *Asian Paints Ltd. Historical Stock Price Data*. https://finance.yahoo.com
14. Zvi, B., Kane, A., & Marcus, A. J. (2021). *Investments* (13th ed.). McGraw-Hill Education.
15. Damodaran, A. (2012). *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* (3rd ed.). Wiley.