



A Study on Risk and Return Analysis of Investment Portfolios in of Shri Amman Steel & Allied Industries (P) Ltd at Trichy

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Date of Submission: 28-03-2026

Date of Acceptance: 08-04-2026

ABSTRACT

This study focuses on the analysis of risk and return associated with investment portfolios at Shri Amman Steel & Allied Industries (P) Ltd, Trichy. It examines the various investment avenues adopted by the company and evaluates their performance in terms of returns and associated risks. The research analyzes financial data using risk-return measurement tools to assess portfolio efficiency. It also highlights the importance of diversification in minimizing risk and maximizing returns. The study provides insights and recommendations for improving investment decisions and portfolio management practices.

Keywords: Risk Analysis, Return on Investment, Portfolio Management, Diversification, Financial Performance

I. INTRODUCTION

Overview of the Finance Industry

The finance industry plays a pivotal role in the economic development of any country by facilitating the efficient allocation of financial resources. It acts as an intermediary between surplus units (investors) and deficit units (borrowers), thereby promoting savings, investment, and capital formation. The industry comprises banks, financial institutions, insurance companies, mutual funds, stock markets, and other investment entities that collectively contribute to economic stability and growth. In the modern globalized economy, the finance industry has evolved significantly due to technological advancements, financial innovations, and increased market integration, making investment decisions more complex and dynamic.

Concept of Investment and Portfolio Management

Investment refers to the commitment of funds to assets or securities with the expectation of generating income or capital appreciation over time. Portfolio management involves the selection,

allocation, and monitoring of a group of investment assets to achieve specific financial objectives while minimizing risk. Rather than investing in a single security, investors typically construct portfolios consisting of different asset classes to reduce risk through diversification.

Understanding Risk in Investment Portfolios

Risk in investment refers to the uncertainty associated with the expected returns from an asset or portfolio. It arises due to various factors such as market volatility, economic fluctuations, interest rate changes, inflation, political instability, and company-specific events. In the finance industry, risk is broadly classified into systematic risk and unsystematic risk. Systematic risk affects the entire market and cannot be eliminated through diversification, whereas unsystematic risk is specific to individual securities and can be reduced by holding a diversified portfolio.

Concept of Return and Its Importance

Return represents the gain or loss on an investment over a specific period and is a key determinant of investment performance. It may be in the form of income, such as dividends or interest, and/or capital appreciation. In the finance industry, return serves as the primary motivation for investors to allocate funds to different financial instruments.

SIGNIFICANCE OF THE STUDY

A study on risk and return analysis of investment portfolios towards the finance industry is significant as it helps investors and financial professionals understand the trade-off between risk and expected returns in investment decision-making. By analyzing portfolio performance using measures such as variance, standard deviation, beta, and expected return, the study provides insights into effective diversification strategies and optimal asset allocation. This research is valuable for portfolio managers, individual investors, and financial institutions in minimizing investment risk while



maximizing returns under varying market conditions. Additionally, the study supports informed financial planning, risk management, and investment policy formulation, while contributing to academic knowledge by strengthening the practical application of modern portfolio theory within the finance industry.

OBJECTIVE OF THE STUDY

- To make a analytical study of various financial products
- To know the effective utilization of various financial products by Shri Amman Steel & Allied Industries (P) Ltd., Trichy
- Risks need to be evaluated based on their likelihood and potential impact.
- Risk management is not a one-time event; it requires ongoing monitoring and review to ensure that the mitigation strategies remain effective.
- Risk management helps protect an organization's assets, including financial resources, reputation, and human capital.
- A successful risk management program fosters a culture where employees are aware of potential risks and take proactive measures to mitigate them

SCOPE OF THE STUDY

- Risk management analysis study typically involves identifying, assessing, and mitigating potential risks, encompassing both internal and external factors that could impact an organization's objectives
- Clearly define the goals of the risk management analysis, such as protecting assets, ensuring compliance, or improving project outcomes.
- Identify key stakeholders who will be affected by the risk management process and ensure their involvement.
- Use a risk matrix to categorize risks based on their likelihood and impact, which helps prioritize risks for further analysis.

LIMITATIONS OF THE STUDY

- Time allowed for the study was not sufficient.
- A sample survey was selected.
- The data provided by the respondent may not be correct or accurate.
- Some of the samples selected for the study did not respond properly to the questionnaire. However proper care had

taken to make the analysis and interpretations more meaningful.

- Questionnaires are impersonal, this means that it may be difficult to understand answers and thus to act on them. Also, there is a chance that the question may be misinterpreted, rendering the answer useless.

II. REVIEW OF LITERATURE

M. Hanke 2023 The existing risk management approaches and methods include risk reduction tools and risk accounting tools. In order to reduce the risk of financial management, it is advisable to use a number of organizational risk management tools to influence the activities of the enterprise. The company can also minimize financial risks by establishing and using internal financial regulations in the process of developing a program for the implementation of certain financial transactions or the financial activities of the company as a whole.

Akomea-Frimpong, Jin, and Osei-Kyei 2024 examined financial risk mitigation strategies in sustainable PPP infrastructure projects. Utilizing quantitative analysis, they assessed the effectiveness of various risk management techniques, such as revenue guarantees and real option pricing. The study underscored the importance of aligning financial risk management practices with sustainability objectives, ensuring that infrastructure projects are both economically viable and environmentally responsible. These findings are particularly pertinent to the interior industry, where sustainable development is increasingly prioritized.

Akomea-Frimpong, Jin, and Osei-Kyei (2024) applied fuzzy logic to analyze financial risk management strategies in Ghana's PPP infrastructure projects. Their study highlighted the complexity and uncertainty inherent in financial risk assessment and proposed fuzzy analysis as a tool to better capture the nuances of risk factors. By incorporating this approach, project managers can make more informed decisions under uncertainty, a scenario common in large-scale energy infrastructure projects within the interior industry.

Yang (2024) explored the risk management practices in international engineering project financing, focusing on the challenges faced by Chinese construction enterprises. The study identified political, legal, market, performance, economic, construction, and operational risks as significant concerns. It emphasized the need for comprehensive risk assessment and mitigation strategies to ensure the success of international



projects. These insights are valuable for the interior industry, where cross-border energy infrastructure projects are becoming increasingly common.

III. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problems. According to Clifford Woody, “Research compresses defining and redefining problems, formulating hypothesis or suggested solutions, collecting, organizing and evaluating data, making deduction and researching conclusion and carefully testing the conclusion to determine whether they fit the formulating hypothesis”. The methods adapted to carrying out this study are as follows

Research design: A research design is the arrangement of condition for collection and analysis of data in a manner that may result in an economy in procedure. It stands for advance planning for collection of the relevant data and the techniques to be used in analysis, keeping in view the objectives of the research and availability of time,

Period of study: This study contains the Risk analysis for the period of five years from 2021-2025

SOURCES OF DATA COLLECTION

PRIMARY DATA

The primary data was those data which are collected as fresh and for the first time and this happen to be in original in character. The Primary data was collected through discussions with the management and staff of the Organisation.

SECONDARY DATA

The secondary data are those which have already collected by someone else and which have

already been passed through the statistical process. These were sources collected from published Annual Reports and other related files were also referred and collected. Pictorial representation through graphs has been used for better and clear perception.

TOOLS FOR ANALYSIS

The following tools have been adopted by the researcher.

- Ratio analysis
- Standard Deviation
- Trend analysis
- Compound Annual Growth Rate – CAGR
- Common size balance sheets

IV. DATA ANALYSIS AND INTERPRETATION

TREND ANALYSIS

Time series or trend analysis of ratios indicates the direction of change this kind of analysis is particularly applicable to the items of profits and loss account. It is advisable that trends of sales and net income may be studied in the light of two factors: the rate of fixed expansion or secular trend in the growth of the business and the general price level. For trend analysis, the use of index numbers generally advocated. The procedure followed is to assign the number 100 to items of the base year and to calculate percentage changes in each item of other years in relation to the base year. This procedure may be called as “trend-percentage method”.

CURRENT ASSETS			CURRENT LIABILITIES		WORKING CAPITAL	
YEAR	AMOUNT	TREND %	AMOUNT	TREND %	AMOUNT	TREND %
2020	48764.79	100	1757.80	100	47006.99	100
2021	61589.22	126.30	2279.75	129.69	59309.47	126.17
2022	68921.12	141.33	2398.87	136.47	66522.25	141.51
2023	70963.76	145.51	1823.58	103.74	69140.18	147.08
2024	82321..69	168.79	1955.06	111.22	80366.63	170.96

Source: Secondary Data

INFERENCE: The current assets, current liabilities and working capital percentage were above 100% in the year of 2019-20. The current assets was in the year of 2023-24 is 168.79 and the current liabilities to 111.22 for 2023-24. The working capital trend percentage in the year of 2023-24 is 170.96.



COMPOUND ANNUAL GROWTH RATE - CAGR

The year-over-year growth rate of an investment over a specified period of time. The compound annual growth rate is calculated by taking the nth root of the total percentage growth rate, where n is the number of years in the period being considered. This can be written as follows:

$$CAGR = \frac{\text{Ending Value}^{\frac{1}{\text{No of years}}}}{\text{Beginning Value}} - 1$$

**COMPOUND ANNUAL GROWTH RATE
 TABLE SHOWING COMPOUND ANNUAL GROWTH RATE**

YEAR	CURRENT LIABILITY
2020	1757.80
2021	2279.75
2022	2398.87
2023	1823.58
2024	1955.06

Source: Secondary Data

$$CAGR = \left(\frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\left(\frac{1}{\# \text{ of years}} \right)} - 1$$

$$= \left(\frac{1955.06}{1757.80} \right)^{\left(\frac{1}{5} \right)} - 1$$

CAGR = -0.98

INFERENCE

From the above analysis the researcher found that the compound annual growth rate is **-0.98** between the year 2020 and 2024.

V. SUGGESTIONS

1. Implement a Comprehensive Risk Management Framework: Develop and adopt a structured risk management framework that encompasses identification, assessment, mitigation, and monitoring of financial risks throughout the project lifecycle.
2. Enhance Stakeholder Engagement: Foster transparent communication and collaboration with all stakeholders, including contractors, regulatory bodies, and the local community, to identify and address potential financial risks proactively.
3. Adopt Advanced Analytical Tools: Utilize advanced tools such as predictive analytics and machine learning models to anticipate potential financial pitfalls and optimize decision-making processes.
4. Regularly Update Risk Assessments: Conduct periodic reviews and updates of risk assessments to account for changing



- market conditions, regulatory environments, and project scopes.
5. Align with International Standards: Ensure adherence to international financial and operational standards to enhance credibility and facilitate smoother project execution.

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VI. CONCLUSION

Financial risk management is integral to the success of large-scale energy infrastructure projects, particularly for companies like Shri Amman Steel & Allied Industries (P) Ltd. The complexities and uncertainties inherent in such projects necessitate a robust and dynamic approach to identifying and mitigating financial risks. By implementing comprehensive risk management frameworks, engaging stakeholders effectively, and leveraging advanced analytical tools, organizations can enhance their resilience against financial uncertainties. Regular updates to risk assessments and alignment with international standards further strengthen the financial stability and operational efficiency of these projects. This study underscores the critical need for proactive financial risk management strategies to ensure the successful completion and sustainability of energy infrastructure initiatives.

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