

**Project Report**  
**On**  
**“A Study On Financial Performance Analysis Of**  
**Solar Industries Limited”**

**(For the Financial Year 2019-20 to 2022-23)**

Submitted to:  
**G. S. College of Commerce and Economics, Nagpur**  
(An Autonomous Institution)

Affiliated to:  
**Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur**

In Partial fulfillment for the award of the Degree of  
**Master of Business Administration**

**Submitted By**  
Samruddhi Gajanan Thete

**Under the Guidance of**  
Dr. Kamlesh Thote

---

**Department of Management Sciences & Research**

**G. S. College of Commerce & Economics, Nagpur**  
NAAC Accredited “A” Grade Autonomous Institution



**For academic Year**  
**2022-2023**

**Department of Management Sciences & Research**  
**G.S. College of Commerce & Economics, Nagpur**

NAAC Accredited "A" Grade Autonomous Institution



**For academic Year**  
**2022-2023**

---

**CERTIFICATE**

This is to certify that "**Samruddhi Thete**" has submitted the final Project titled "**A Study on Financial Performance Analysis Of Solar Industries Limited (For the Financial Year 2019-20 to 2022-23)**", towards partial fulfillment of **Master of Business Administration** degree examination. This has not been submitted for any other examination and does not form part of any other course undergone by the candidate.

It is further certified that he has ingeniously completed her project as prescribed by DMSR - G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR

(NAAC Reaccredited "A" Grade Autonomous Institution) affiliated to Rashtrasant  
Tukadoji Maharaj Nagpur University, Nagpur.

**Prof. Kamlesh Thote**  
**(Project Guide)**

**Dr. Sonali Gadekar**  
**(Co-Ordinator)**

**Place: Nagpur**

**Date:**

**Department of Management Sciences & Research**  
**G.S. College of Commerce & Economics, Nagpur**

NAAC Re-Accredited “A” Grade Autonomous Institution



**For academic Year**  
**2022-2023**

---

**DECLARATION**

I here-by declare that the project with title “**An Analytical Study of Financial Performance Analysis of Solar Industries limited**” has been completed by me in partial fulfillment of **MASTER OF BUSINESS ADMINISTRATION** degree examination as prescribed by **DMSR - G. S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR** (NAAC Reaccredited “A” Grade Autonomous Institution) affiliated to Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur and this has not been submitted for any other examination and does not form the part of any other course undertaken by me.

Place: Nagpur

Samruddhi Thete

Date:

**Department of Management Sciences & Research**  
**G.S. College of Commerce & Economics, Nagpur**

NAAC Re-Accredited "A" Grade Autonomous Institution



**For academic Year**  
**2022-2023**

---

**ACKNOWLEDGEMENT**

With immense pride and sense of gratitude, I take this golden opportunity to express my sincere regards to Dr. Swati S. Kathaley, Principal, G.S. College of Commerce & Economics, Nagpur

I am extremely thankful to my Project Guide Dr. Kamlesh Thote for his guideline throughout the project. I tender my sincere regards to Co-ordinator, Dr. Sonali Gadekar for giving me guidance, suggestions and valuable encouragement which helped me in the completion of the project.

I will fail in my duty if I do not thank the non-Teaching staff of the college for their Co-operation. I would like to thank all those who helped me in making this project complete and successful.

Place: Nagpur

Date:

Samruddhi Thete

## INDEX

<b>Chapter No.</b>	<b>Chapter Name</b>	<b>Page No.</b>
1.	Introduction	1
2.	Company Profile	11
3.	Review of Literature	14
3.	Objective of Study	17
4.	Scope of Study	19
6.	Research Methodology	20
7.	Data Analysis & Interpretation of Data	23
8.	Findings & Suggestion	34
9.	Conclusion	36
10.	Bibliography	37
11.	Annexure	38

# **Chapter 1**

## **INTRODUCTION**

# **INTRODUCTION**

Financial analysis is the process of evaluating businesses, projects, budgets, and other finance-related transactions to determine their performance and suitability. Typically, financial analysis is used to analyze whether an entity is stable, [solvent](#), [liquid](#), or profitable enough to warrant a monetary investment.

One of the most common ways to analyze financial data is to calculate ratios from the data to compare against those of other companies or against the company's own historical performance. For example, return on assets (ROA) is a common ratio used to determine how efficient a company is at using its assets and as a measure of profitability. This ratio could be calculated for several similar companies and compared as part of a larger analysis.

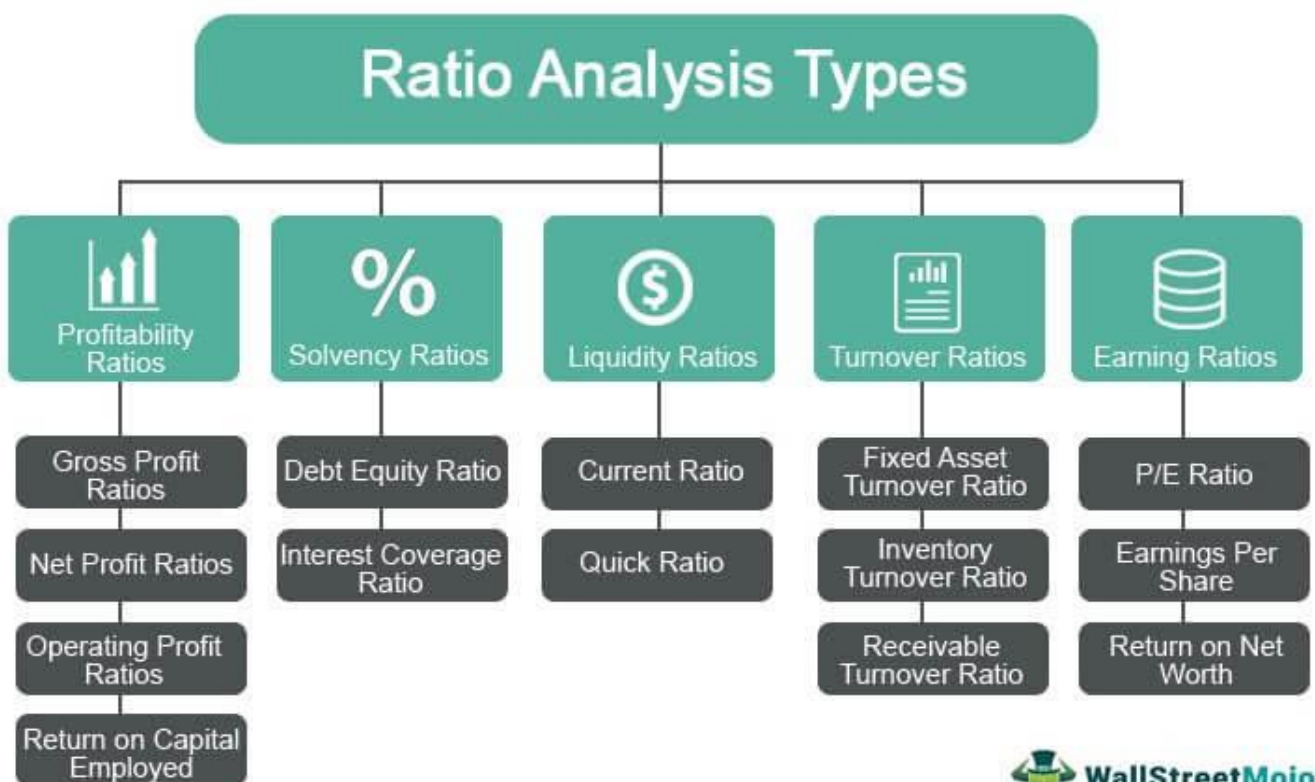
Financial analysis can be conducted in both corporate finance and investment finance settings. In corporate finance, the analysis is conducted internally, using such ratios as net present value (NPV) and internal rate of return (IRR) to find projects worth executing. A key area of corporate financial analysis involves extrapolating a company's past performance, such as gross revenue or profitmargin, into an estimate of the company's future performance. This allows the business to forecast budgets and make decisions based on past trends, such as inventory levels.

A top-down approach first looks for macroeconomic opportunities, such as high-performing sectors, and then drills down to find the best companies within that sector. A bottom-up approach, on the other hand, looks at a specific company and conducts similar ratio analysis to corporate financial analysis, looking at past performance and expected future performance as investment indicators.

## Financial Ratio Analysis And Interpretation

Financial ratio analysis is the technique of comparing the relationship (or ratio) between two or more items of financial data from a company's [financial statements](#). It is mainly used as a way of making fair comparisons across time and between different companies or industries.

### CLASSIFICATION OF RATIO BY STATEMENT





## Profitability Ratios

Profitability ratio is used to evaluate the company's ability to generate income as compared to its expenses and other cost associated with the generation of income during a particular period. This ratio represents the final result of the company.

### i) Gross Profit Margin

The gross profit margin ratio helps measure how much profit a company generates from its sales of goods and services after deducting direct costs or the cost of goods sold. Also, a higher gross profit is a positive indication that the company can cover operating expenses, fixed costs, depreciation, etc., and generate net income for the company. In contrast, a low gross profit margin reflects poorly on the company, indicating high selling price, low sales, high costs, severe market competition etc.

Formula -

**Gross Profit Margin** = Gross Profit / Net Sales

**Where,**

Gross Profit = Net Sales – Cost of Goods Sold

Net Sales = Total Sales – Discounts – Allowances – Sales Returns

### ii) Net Profit Margin

The net profit margin measures the company's overall profitability from its sales after deducting all direct and indirect expenses. Also, it is the percentage of revenue that remains after deducting all expenses, interest and taxes. A higher net profit indicates that the company is operating well while managing its costs and pricing of goods and services. However, one drawback of using this ratio is that it includes one time expenses and gains, making it challenging to compare performance with its competitors.

**Net Profit Margin Ratio** = Net Income / Net Sales

**Where,**

Net Income = Gross Profit – All Expenses – Interest – Taxes

Net Sales = Total Sales – Discounts – Allowances – Sales Returns

## Operating Profit Margin

Operating Profit Margin helps measure the company's ability to maintain operating expenses to generate profit before interest expense and tax deduction. In other words, the revenue that remains after costs is deducted from net sales. A higher ratio indicates that the company is well equipped to pay its fixed costs, interest obligations, handle economic slowdowns and also offer lower prices than its competitors at lower margins. Moreover, the company management most frequently uses this to improve profitability by managing its costs.

### **Formula**

**Operating Profit Margin Ratio** = Operating Profit / Net Sales

### **Where,**

Operating Profit = Gross Profit – Operating Expenses – Depreciation and Amortisation

Net Sales = Total Sales – Discounts – Allowances – Sales Returns

## Return Ratios

While Profitability ratios give a sense of profitability per rupee of sales by the business, they do not communicate anything on the productivity of each rupee invested in the business. This part of allocation of capital and its productivity is captured through comparing profits with the capital employed in the business. Two important ratios to look at here are

- 1) Return on Equity (ROE)
- 2) Return on Capital Employed (ROCE).

### **(1) Return on Equity (ROE):**

This is the single most important parameter for an investor to start digging for more information about a company. ROE communicates how a business allocates its capital and generates return. An efficient allocator of capital would have high ROE and a poor quality of business would have low ROE.

ROE, sometimes also known as Return on Net-worth (ROI), is calculated as

$$\text{ROE} = \frac{\text{PAT}}{\text{Net Worth}}$$

Net Worth = Equity Capital + Reserves & Surplus

Higher the ROE, better the firm.

### **(2) Return on Capital Employed (ROCE):**

This ratio uses EBIT and calculates it as a percentage of the money employed in the firm by way of both equity and debt.

$$\text{ROCE} = \frac{\text{EBIT}}{\text{Capital Employed}}$$

$$\text{Capital Employed} = \text{Total Assets} - \text{Current Liabilities}$$

Higher the ratio, better the firm since it is generating higher returns for every rupee of capital employed. Investors can use this to analyse the returns of companies with different sizes in the same industry.

## **Leverage Ratios**

A high level of debt used in funding the operations can be risky for the business, especially in an economic downturn when revenues and profitability reduce. Leverage Ratios can be used to analyse the extent of leverage used by a business and its ability to meet the obligations arising from them. Two important parameters here are

- 1) Debt /Equity ratio
- 2) Interest coverage ratio

### **(1) Debt/ Equity (D/E):**

As discussed earlier, high levels of debt in a business can prove to be detrimental for a company. In absence of its ability to pay to the lenders, business may have to face bankruptcy. When businesses create assets aggressively out of borrowed money, it could be quite dangerous if the assets are unable to generate the expected revenues and profitability. The liability will still have to be met.

It would be prudent for investors to avoid companies with extremely high levels of debt. On a most conservative basis, a D/E of 1 or less should be considered as the benchmark, and then depending upon the industry, track record of the company, capital required, project details, should a decision be taken. This ratio is defined as:

$$\text{Debt to Equity Ratio} = \frac{\text{Long Term DebtNet} - \text{worth}}{\text{worth}}$$

### **(2) Interest Coverage Ratio:**

Companies having high debt need to pay high interest as well. Whether a company is headed for a trouble can be simply seen by comparing its earnings with the interest (we are not talking about principal repayment yet). This ratio, popularly known as Interest Coverage Ratio, tells us how many times the earnings of the business is, vis a vis its interest obligation. This is simply defined as:

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

If this ratio is high, clearly, business is in comfortable zone. The ratio will be less than one or negative in some businesses, which means that earnings are less than interest or earnings are negative and interest obligations exist. As these businesses would be either borrowing money or infusing equity to run the show, these businesses may come into significant problems if they don't turn around soon. Kingfisher Airlines is one such example.

## **Liquidity Ratio**

It is important to see whether a business is able to honor its obligations as and when they arise. Two simple measures for the same are

- 1) Current Ratio
- 2) Quick Ratio

### **(1) Current Ratio:**

This ratio measures the company's liquidity situation by comparing its current assets with its current liabilities. A ratio of more than 1 means that the company has current assets more than its current liabilities. This ratio is also known as Working Capital Ratio.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

This ratio measures the ability of the company to meet its short-term liabilities. The elements that constitute the working capital of the company, trade receivables, inventory, trade payables, form an important component of this ratio. In fact, it is a very good situation in which the company's working capital is funded by the customers.

A high ratio may indicate poor use of working capital while a very low ratio may point towards deeper analysis.

### **(2) Quick Ratio:**

This is a more stringent version of the liquidity ratio as it does not consider assets, which although current in nature, but cannot be converted into cash immediately. Prominent example of such current assets is inventories. Thus,

$$\text{Quick Ratio} = \frac{(\text{Current Assets} - \text{Inventories})}{\text{Current Liabilities}}$$

Accounts receivable, cash, investments in liquid funds, are all included in calculating quick ratio.

Higher the ratio better the liquidity, but lesser will be the returns as cash is not a great source of generating returns.

**Efficiency Ratio:**

It is important to see whether a business is efficient in its operations. Efficiency would also help business improve its capital allocation and so the profitability and return ratios. Some simple parameters of efficiency in a business are defined below.

- 1) Accounts Receivable Turnover
- 2) Accounts Payable Turnover
- 3) Asset Turnover
- 4) Inventory Turnover

**(1) Accounts Receivable Turnover:**

This ratio indicates how fast company converts its sale in to cash. Higher the ratio, better the firm, as it means that very small portion of its revenues are in the form of credit. On the other hand, if the ratio is low, it means that the company is giving too easy credit or may be even facing difficulties in recovering money from its distributors/clients.

$$\text{Accounts Receivable Turnover} = \frac{\text{Revenue}}{\text{Accounts Receivable}}$$

**(2) Asset Turnover:**

This ratio indicates how many times assets of the business are churned / put to use to generate revenues for the business. Clearly, if assets are lying idle, that is not good for the business as capital is deployed but it is not generating revenue. On the other hand, if asset is continuously churned / put to use to produce goods and services, it would improve the revenues and the profits. Therefore, higher the ratio, better the firm.

$$\text{Asset Turnover} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

### **(3) Inventory Turnover:**

This ratio gives the number of times inventory is rolled over by a company Hence, higher the ratio, better is the business. Inventory, if not converted into sales fast, would mean money is locked in the business. Also, perishable goods may start deteriorating if inventory is not turned into sales fast. This ratio would be high for FMCG companies whereas low for capital goods companies.

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

## **Chapter II**

# **COMPANY PROFILE**



# Introduction



Founded by visionary Shri. Satyanarayan Nandlal Nuwal, Solar Group has evolved from a single site manufacturing company in 1995 to a globally recognised Industrial Explosives manufacturer today.

With our extensive experience, expertise and potential founded on our years of experience in the Industrial Explosives segment, we have entered into Defence and setup one of the world's most integrated facilities for Ammunition.

Our innovation edge is rooted in a strategic blend of talented manpower and technological prowess. We bank on our rich experience to create sustainable value and intend to accelerate towards excellence at an impressive pace.

Solar Group is a global company, specialising in the design, development, manufacture and application of energy materials. It structures its business activity into :

- Blasting solutions for mining, quarries and public works;
- Manufacturers of a complete range of industrial explosives (bulk and cartridge), detonators and detonating fuse and cast boosters;
- Ammunition (HMX, RDX etc.) for the defence and security sector;
- Production of key primary products in military activity i.e. composite propellants (Pinaka, Akash, Brahmos etc.), rockets & warheads for missiles filling of ammunition & fuzes and high

energy material.

Founded in 1995, Solar is the India's leading manufacturers of commercial explosives & blasting system and ammunitions. We believe in reducing cost of operation of mining and adding values through the use of expansion energy, always with safety as our first priority. We do this by bringing together: the best people; reliable & high quality products and safe, secure & reliable supply. Our safety standards are among the highest in the industry.

We are: -

- World's largest cartridge manufacturing facility at a single location.
- India's first domestic supplier in private sector of HMX & HMX compounded products to the defence sector.
- Manufacturing facilities in 5 countries and presence in 51 countries.

## **Relevance of the Study**

### **Our Vision**

To emerge as a global leader in the manufacturing of industrial and military explosives and an innovative solution provider with a focus on safety, quality and reliability.

### **Our Mission**

To provide innovative technology and services through Research and Development.

To contain product and service costs through constant re-engineering and improvement in all business processes.

To ensure high quality delivery of services offering exemplary technical, safety, administrative and professional excellence with commitment to environmental safeguards.

To forge and nurture alliances that are complimentary to the Company's global ambitions.

To retain our responsive, efficient and effective processes and services to realise our vision at all times.

**Chapter III**  
**REVIEW OF LITERATURE**

## **REVIEW OF LITERATURE**

Review of Literature refers to the collection of the results of the various researches relating to the present study. It takes into consideration the research of the previous researchers which are related to the present research in any way. Here are the reviews of the previous researches related with the present study:

**Bollen (2021)** conducted a study on Ratio Variables on which he found three different uses of ratio variables in aggregate data analysis: (1) as measures of theoretical concepts, (2) as a means to control an extraneous factor, and (3) as a correction for heteroscedasticity. In the use of ratios as indices of concepts, a problem can arise if it is regressed on other indices or variables that contain a common component. For example, the relationship between two per capita measures may be confounded with the common population component in each variable. Regarding the second use of ratios, only under exceptional conditions will ratio variables be a suitable means of controlling an extraneous factor. Finally, the use of ratios to correct for heteroscedasticity is also often misused. Only under special conditions will the common form formed with ratio variables correct for heteroscedasticity. Alternatives to ratios for each of these cases are discussed and evaluated.

**Cooper (2015)** conducted a study on Financial Intermediation on which he observed that the quantitative behavior of business-cycle models in which the intermediation process acts either as a source of fluctuations or as a propagator of real shocks. In neither case do we find convincing evidence that the intermediation process is an important element of aggregate fluctuations. For an economy driven by intermediation shocks, consumption is not smoother than output, investment is negatively correlated with output, variations in the capital stock are quite large, and interest rates are procyclical. The model economy thus fails to match unconditional moments for the U.S. economy. We also structurally estimate parameters of a model economy in which intermediation and productivity shocks are present, allowing for the intermediation process to propagate the real shock. The unconditional correlations are closer to those observed only when the intermediation shock is relatively unimportant.

**Gerrard (2013)** conducted a study on The Financial Performance on which he found that Using ratio analysis the financial performance of a sample of independent single-plant engineering firms in Leeds is examined with regard to structural and locational differences in establishments. A number of determinants of performance are derived and tested against the constructed data base. Inner-city engineering firms perform relatively less well on all indicators of performance compared with outer-city firms. The study illustrates the importance of using different measures of performance since this affects the magnitude and significance of the results. Financial support is necessary to sustain engineering in the inner city in the long run.

**Schmidgall (2015)** conducted a study on Financial Analysis Using the Statement of Cash Flows on which he observed that Managers use many financial ratios to judge the health of their businesses. With the recent requirement of a statement of cash flow (SCF) by the Financial Accounting Standards Board, managers now have a new set of ratios that will give a realistic picture of the business. The ratios include cash flow-interest coverage, cash flow-dividend coverage, and cash flow from operations to cash flow in investments. These ratios are particularly useful because they show changes in a hotel or restaurant's cash position over time, rather than at a given moment, as is the case with many other ratios.

**Murinde (2003)** conducted a study on Corporate Financial Structures on which he observed that the financial structure of a sample of Indian non-financial companies using a new and unique dataset consisting of a panel containing the published accounts of almost 900 companies that published a full set of accounts every year during 1989-99. In a new departure in the literature, the dataset includes quoted and unquoted companies. We compare the sources-uses approach to analyzing company financial structures with the asset-liability approach. We use both approaches to characterize and to compare the financial structures of Indian companies over time; between quoted and unquoted companies; and between companies which belong to a business group and those that do not. Finally, we compare our results to those obtained previously for India and for the industrial countries.

## **OBJECTIVES OF THE STUDY**

- 1) To Analyze the Profitability of the company using Ratios.
- 2) To Analyze Operational Efficiency of the company using Ratios.
- 3) To Analyze Overall Financial Performance of the company.
- 4) To Study The Financial Ratio.
- 5) To Study the balance sheet and financial statement of the company.

## **SCOPE OF THE STUDY**

The scope of the study is identified after and during the study is conducted.

1. The main scope of the study was to put into practical the theoretical aspect of the study into real life work experience.
2. The study of Ratio analysis further the study is based on last 5 years Annual Reports of Solar Industries Limited.
3. The study also intends to use modern tools and techniques of ratio analysis.
4. The study is entirely based on the balance sheet and other financial statement provided by the company.

## **HYPOTHESIS**

### **Hypothesis 1:**

**H<sub>0</sub>** –There is No significant increase in Profit of Solar Industries Pvt. Ltd in last five years.

**H<sub>1</sub>** – There is significant increase in Profit of Solar Industries Pvt. Ltd in last five years.



**Chapter IV**  
**Research Methodology**

## **RESEARCH METHODOLOGY**

Research is essentially a logical and an organized enquiry seeking facts through objective verifiable methods in order to discover the relationship among them and to refer from the basic principles or laws. It is really a method of critical thinking.

Research may be defined as a systematic and objective analysis and recording of controlled observation that may lead to the development of generalization of principles and theories resulting in prediction and possibly ultimate control of events.

Methodology is often used in a narrow sense to refer to methods, technology or tools employed for the collection of data as well as its processing. This is also used sometimes to designate data collected to be done. It provides answers to some of the major questions while search like what must be done, how it will be done, what data will be needed, what data gathering devices will be employed, how sources of data will be analyzed at the conclusion.

### **DIFFERENT TYPE OF RESEARCH METHODS:**

Success of conducting research depends over the result that is gained by the researcher at the end of the research. These obtained results are affected by the used methods to conduct research. In this way, there are

#### **Two Types of Methods:**

- A) Primary Method
- B) Secondary Method

**A) Primary Method:** All the data that are collected at first time are included under the primary data collection method. Three approaches or methods are comprised under the primary data methods such as:

1. Observation method
2. In-depth interview and
3. Survey through questionnaire.

Under the primary data collection method, most of the researchers prefer to use direct communication with the respondents to reach at the result of the research.

**B) Secondary Method:** Secondary Data Collection Method Data that are collected on the basis of previous data or research is included under the secondary data collection method. In this way, several types of approaches can be used such as:

1. Case study
2. Documentation review
3. Articles
4. Projects etc.

**Research Methodology used in this Project:**

The study is based on only secondary data. In the case study approach of the secondary data collection method, I have collected the data from annual reports, analyzed information which is available on websites of the **Solar Industries Limited**.

**Research Methodology-** The study is based on secondary data which have been collected from:

- (1) Annual Reports of the company
- (2) Articles and Research papers
- (3) Internet
- (4) Books

**CHAPTER V**  
**DATA ANALYSIS AND**  
**INTERPRETATION**

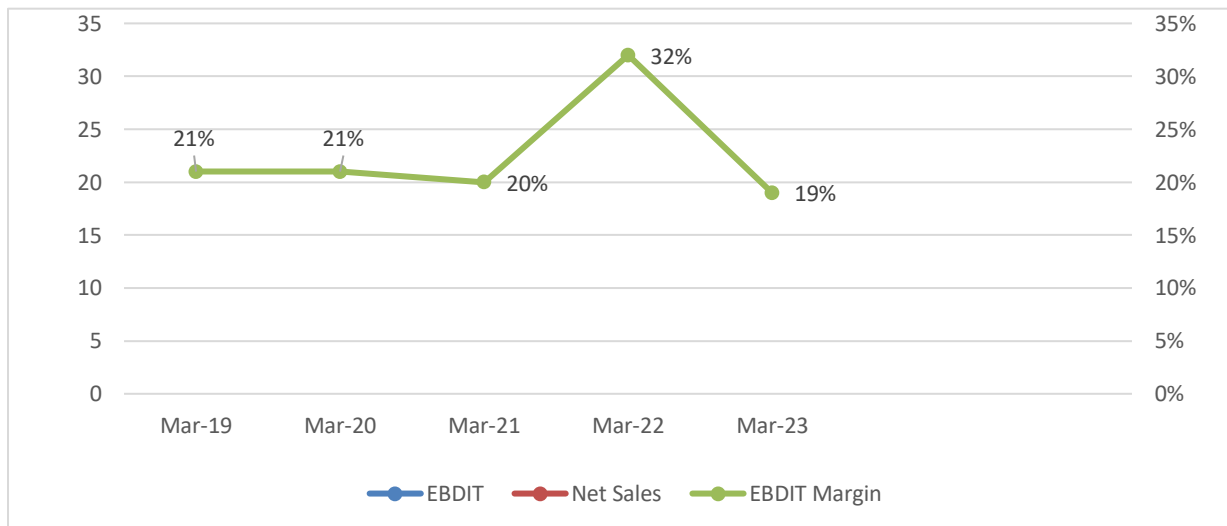
## DATA ANALYSIS & INTERPRETATION OF DATA

### A. Profitability Ratios

#### (1) EBITDA Margin:

$$\text{EBITDA Margin} = \frac{\text{EBITDA}}{\text{Net Sales}}$$

Year	In Rs. Cr.		
	EBDIT	Net Sales	EBDIT Margin
Mar-19	510.49	2461.57	21%
Mar-20	475.37	2237.3	21%
Mar-21	514.6	2515.63	20%
Mar-22	1280.4	3947.61	32%
Mar-23	1288.92	6922.53	19%



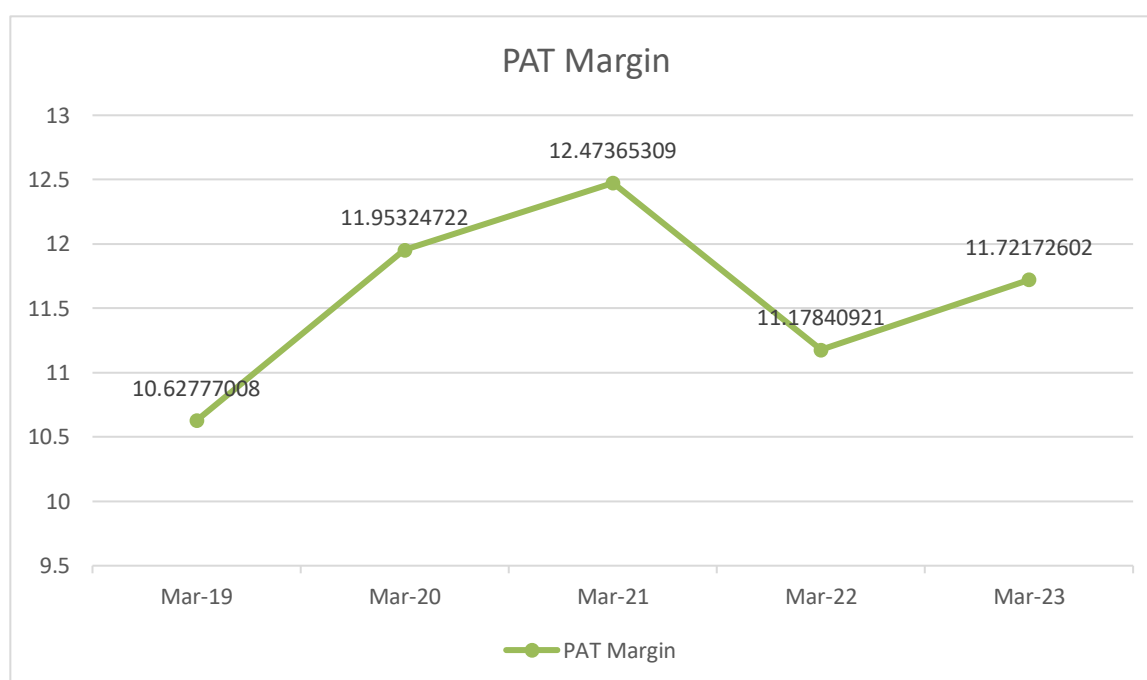
#### **Interpretation:**

EBITDA Margin of the Co. is high in FY 22. We see in this chart that after FY 19 the EBITDA Margin is growing YOY but in FY 22 suddenly Increase in EBITDA Margin. This happens because of Low input cost (Raw Material) and. And it's also realized that the EBITDA Margin of FY 23 is below average of last 5 Year and the average of last 5 year is 19%.

## (2) PAT Margin:

$$\text{PAT Margin} = \frac{\text{PAT}}{\text{Net Sales}}$$

Year	PAT	Net Sales	PAT Margin
FY 2019	261.61	2461.57	11%
FY 2020	267.43	2237.30	12%
FY 2021	276.37	2515.63	11%
FY 2022	441.28	3947.61	11%
FY 2023	811.44	6922.53	12%



### Interpretation:

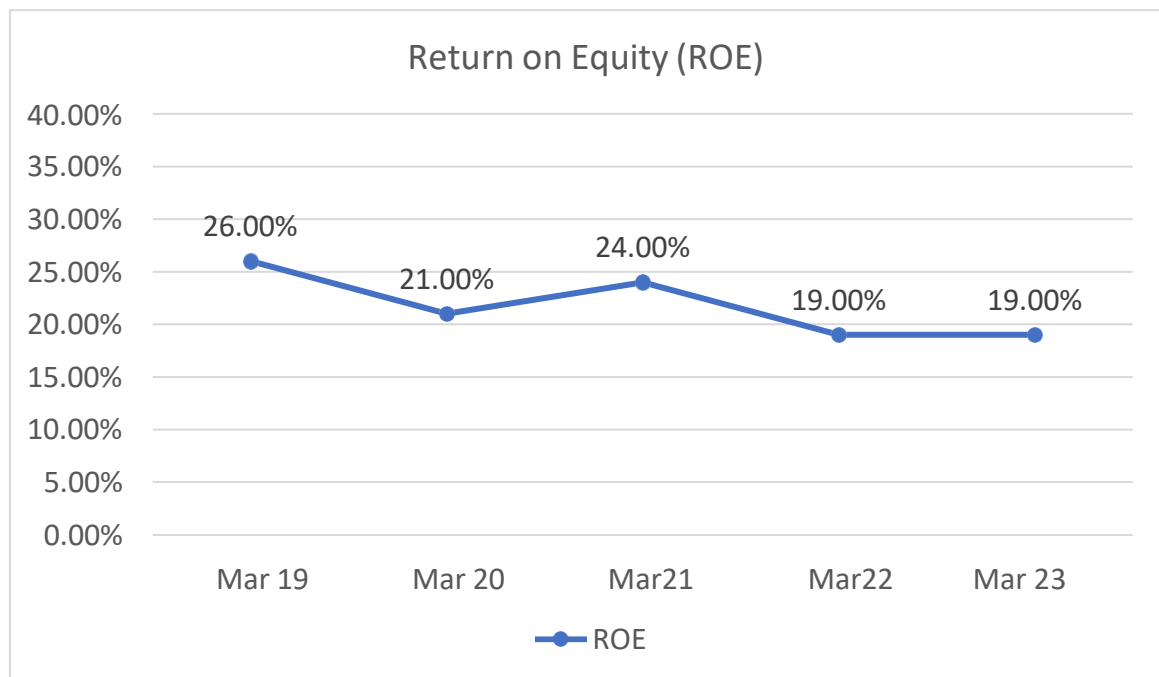
PAT margin of the Co. After FY19 increasing YOY but after FY21 there is a Specified Range in PAT margin . It Moves between the range of 11% and 12%.

## B. Return Ratios

### (1) Return on Equity (ROE):

$$\text{ROE} = \frac{\text{PAT}}{\text{Net Worth}}$$

Year	PAT	Net Worth	ROE
Mar 2019	261.61	3,749	26%
Mar 2020	267.43	4,355	21%
Mar 2021	276.37	4,671	24%
Mar 2022	441.28	5,833	19%
Mar 2023	811.44	6,404	19%



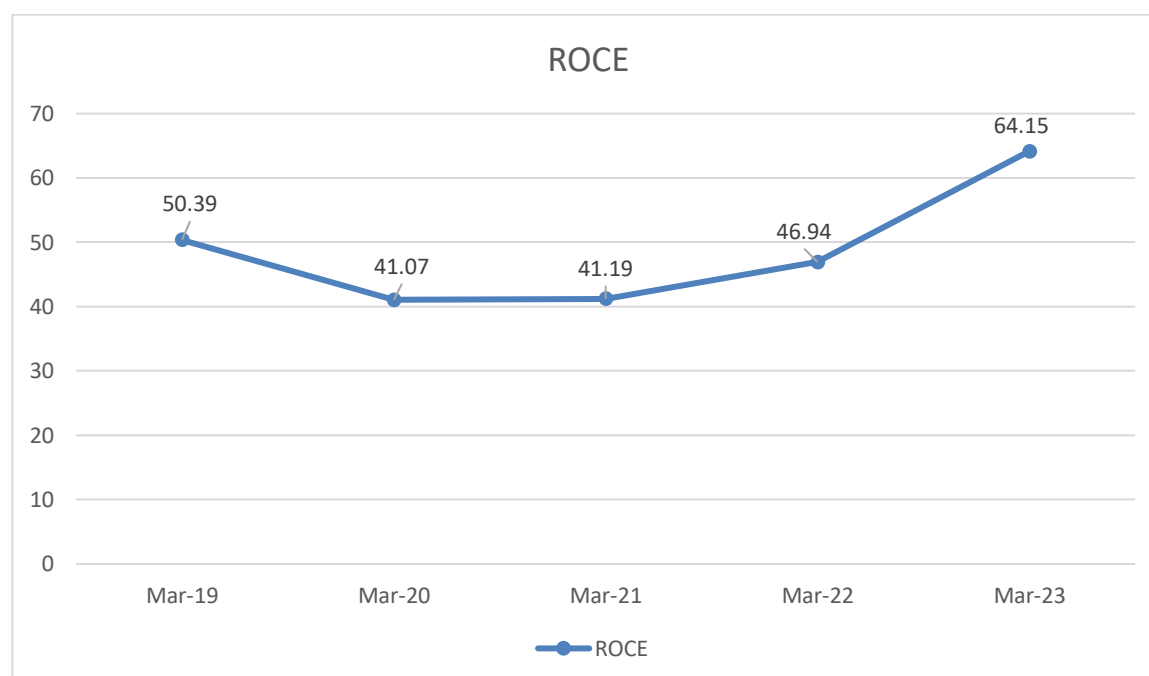
### **Interpretation:**

ROE of the co. slightly low in FY 22 and FY 23 but its average ROE of last 5 year is above 22% and its lowest ROE is 19%. But it's very good ROE as per top fund Managers. And they maintain their ROE above 19% but we see in this chart that lots of up down in their ROE.

## (2) Return on Capital Employed (ROCE):

$$\text{ROCE} = \frac{\text{EBIT}}{\text{Capital Employed}}$$

Year	EBIT	Capital Employed	ROCE
Mar 2019	510.49	1012.94	50.39%
Mar 2020	475.37	1157.42	41.07%
Mar 2021	535.88	1304.11	41.09%
Mar 2022	1299.91	2769.17	46.94%
Mar 2023	1320.44	2058.08	64.15%



### Interpretation:

ROCE of the co. is increasing YOY from Mar 19 to Mar 20. So, we realized that they are utilizing their capital effectively that they employed. And that's effective see in there ROCE.

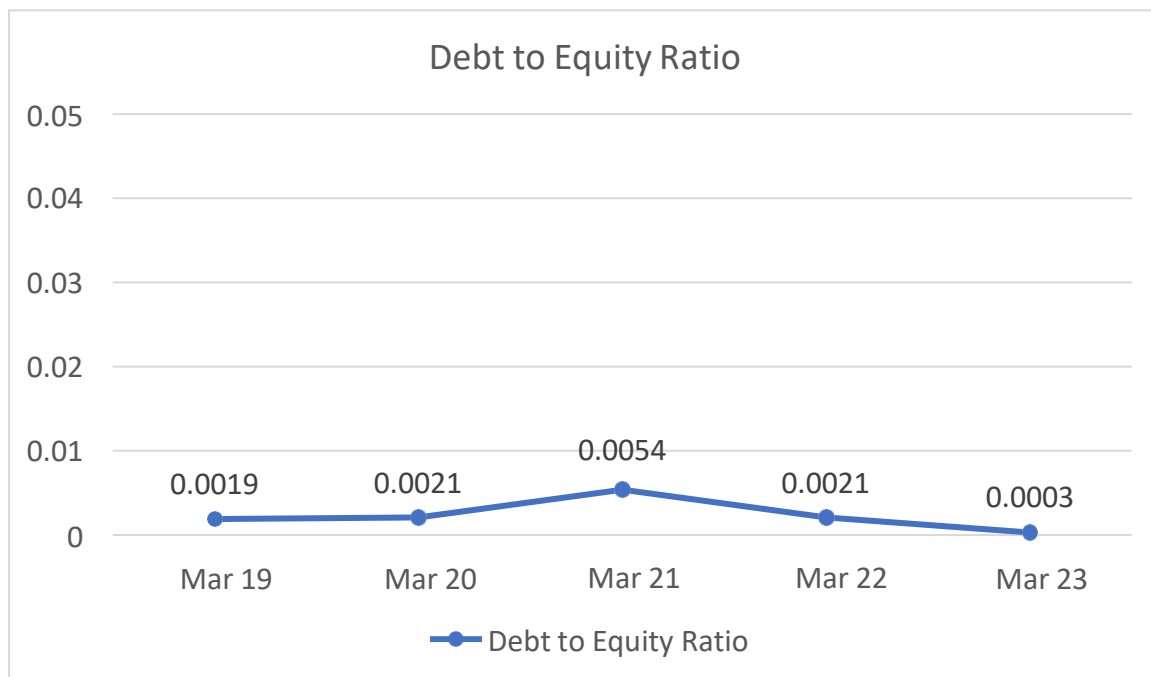


### C. Leverage Ratios

#### (1) Debt/ Equity (D/E):

$$\text{Debt to Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Net-worth}}$$

Year	Long Term Debt	Net-worth	Debt to Equity Ratio
Mar 19	7 Cr	3,749 Cr	0.0019
Mar 20	9 Cr	4,355 Cr	0.0021
Mar21	25 Cr	4,671 Cr	0.0054
Mar22	12 Cr	5,833 Cr	0.0021
Mar 23	2 Cr	6,404 Cr	0.0003



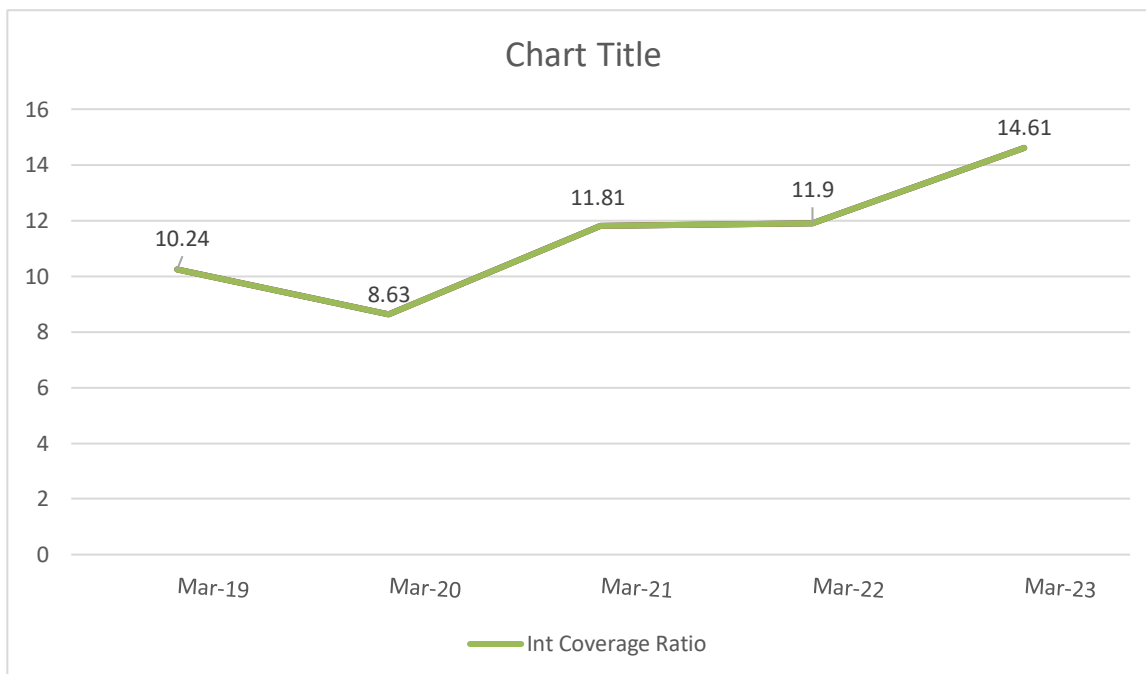
#### **Interpretation:**

Debt to Equity Ratio of the co. is well Maintain. And company is Net Debt Free. InFY23 the company debt is only 2 cr.

## (2) Interest Coverage Ratio:

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

Year	EBIT	Interest Expense	Interest Coverage Ratio
Mar 19	510.49	49.87	10.24%
Mar 20	475.37	55.04	8.63%
Mar 21	535.88	45.39	11.81%
Mar 22	1299.91	109.25	11.90%
Mar 23	1320.44	90.38	14.61%



### Interpretation:

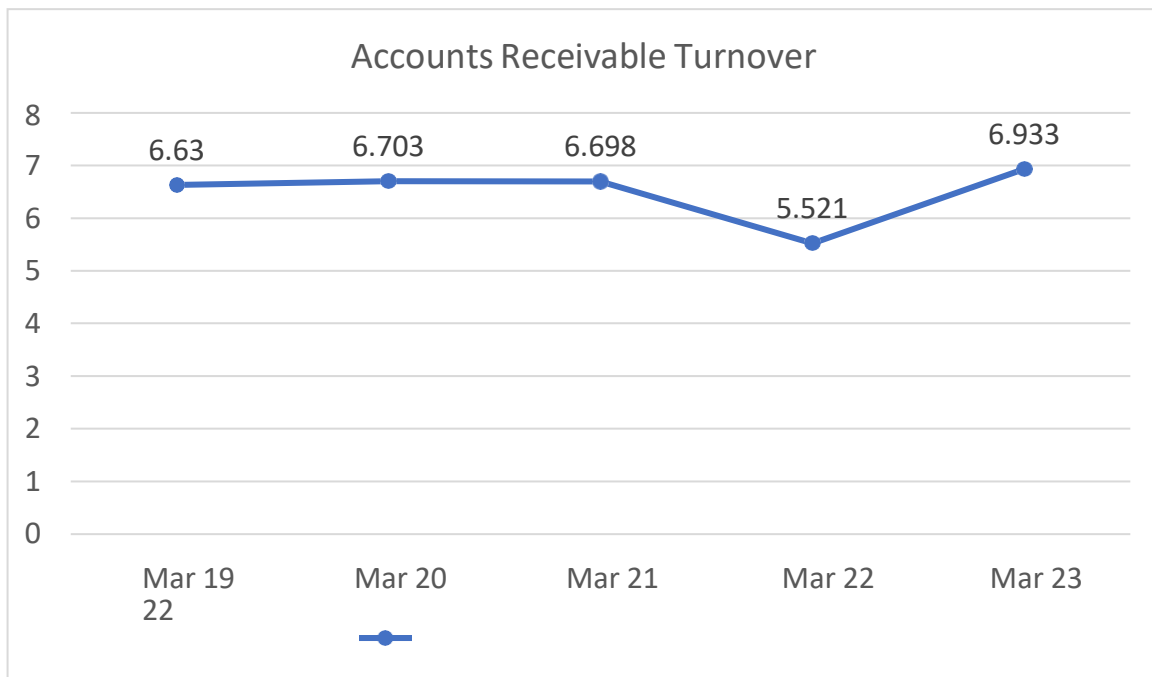
Interest Coverage Ratio of the Company is so High, clearly, business is in comfortable zone. Because Interest rate is increasing continuously and in year Mar 23 is high.

**D. Efficiency Ratio:**

**(1) Accounts Receivable Turnover:**

$$\text{Accounts Receivable Turnover} = \frac{\text{Revenue}}{\text{Accounts Receivable}}$$

Year	Revenue	Accounts Receivable	Accounts Receivable Turnover
Mar 19	6,219 Cr	938 Cr	6.630
Mar 20	7,078 Cr	1,056 Cr	6.703
Mar 21	7,294 Cr	1,089 Cr	6.698
Mar 22	7,293 Cr	1,321 Cr	5.521
Mar 23	9,921 Cr	1,431 Cr	6.933



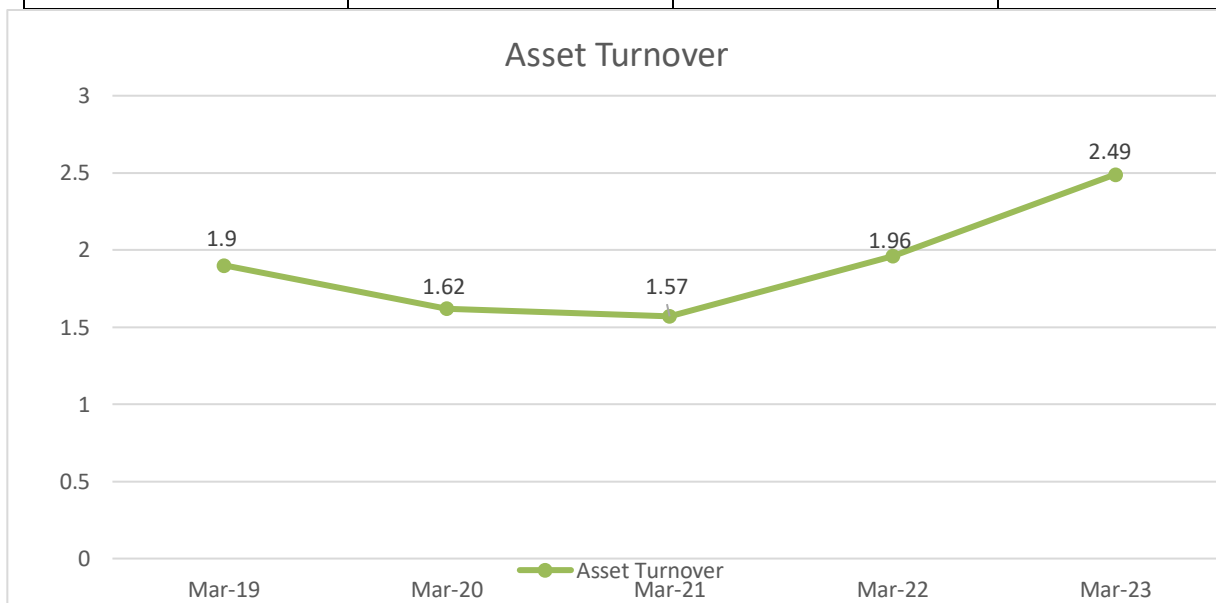
**Interpretation:**

Accounts Receivable Turnover of the company is very well maintained and always above 6.5 but in Mar 22 there is a decrease in their Accounts Receivable Turnover. But after FY22 there significantly increased in Account Receivable. Means company converts its sale into cash very fast.

**(2) Asset Turnover:**

$$\text{Asset Turnover} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

Year	Net Sales	Total Assets	Asset Turnover
Mar 2019	2461.57	1292.16	1.90
Mar 2020	2237.30	1384.46	1.62
Mar 2021	2515.63	1600.45	1.57
Mar 2022	3947.63	2009.08	1.96
Mar 2023	6922.53	2769.17	2.49



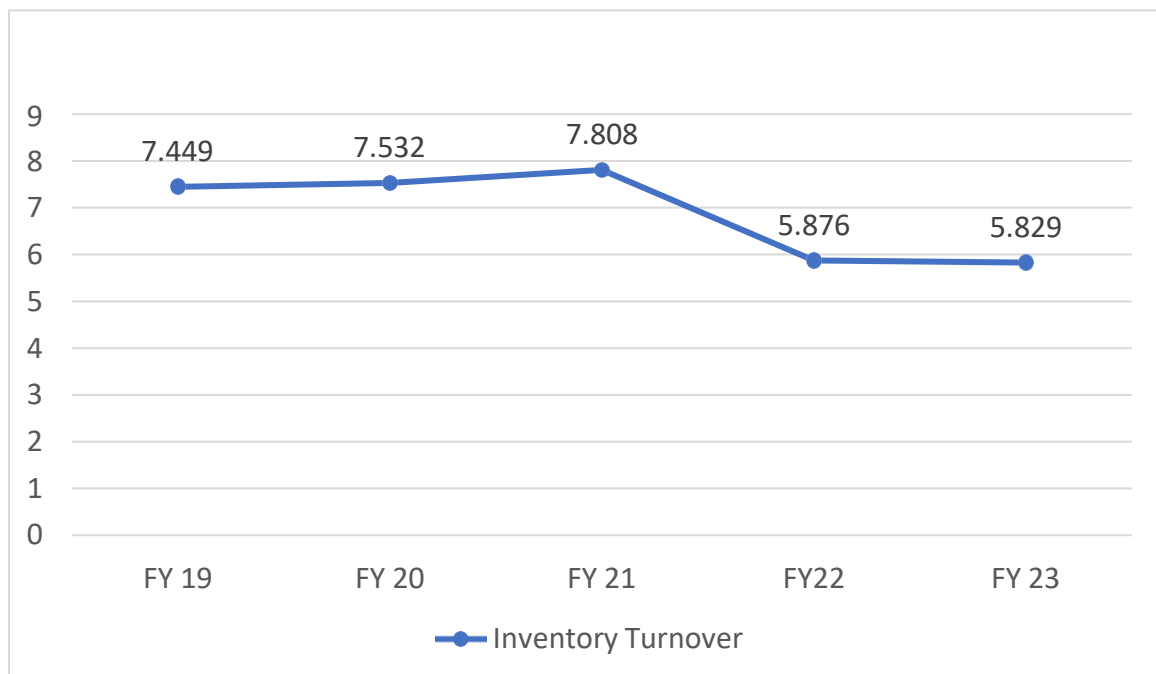
**Interpretation:**

Asset Turnover Ratio of the company that indicates that company maintain Asset Turnover Ratio except in FY21 Because of Covid-19 but there in increase after FY21 Continuously in the FY 2023 the ratio get increased upto 2.49.

### (3) Inventory Turnover:

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

Year	Sales	Inventory	Inventory Turnover
FY 19	2461.57	604 Cr	7.449
FY 20	2237.30	734 Cr	7.532
FY 21	2515.63	729 Cr	7.808
FY 22	3947.61	934 Cr	5.876
FY 23	6922.53	1,395 Cr	5.829



### Interpretation:

Inventory Turnover Ratio of the company is constant in FY19 to FY21. But after FY21 there is a decrease in Inventory Turnover Ratio. As the sales get increasing year on year as well as inventory also increasing which results into the decreasing inventory ratio.

## **HYPOTHESIS TESTING**

### **Hypothesis 1:**

**H<sub>0</sub>** –There is No significant increase in Profit of Solar Industries Pvt. Ltd in last five years.

**H<sub>1</sub>** – There is significant increase in Profit of Solar Industries Pvt. Ltd in last five years.

**Interpretation:** From the above Research study it is found that within HypothesisNo.1. The Hypothesis 1 (H<sub>1</sub>) i.e., “There is significant increase in Profit of Solar Industries Pvt. Ltd in last five years”. Is found that to true. Hence accepted.

Whereas alternate Hypothesis i.e., “There is no significant increase in Profit of Solar Industries Pvt. Ltd. in last five years”. Is rejected.

**CHAPTER VI**  
**SUGGESTIONS**  
**& FINDINGS**

## **FINDINGS**

### **Some Finding of the Analysis and Interpretation:**

- **Profitability Ratio:** Overall Profitability of the company from FY19 to FY20 is increasing YOY but in FY23 the Profitability of the company is significantly decreased the reason behind this, that we analyzed is High Input Cost (Raw Material Cost)
- **Return Ratio:** ROE and ROCE of the company is significantly increasing from FY19 to FY23. ROE is fluctuating between certain range bound and ROCE is continuously increasing. They maintain ROE and ROCE above 18%. That is a good sign as per Top Fund Managers.
- **Leverage Ratio:** Leverage Ratio of the company very well maintained. Because of company is Net Debt Free and in FY22 Long Term Debt of the company is only 2cr.
- **Efficiency Ratio:** The overall efficiency of the company is well Maintained.

## **SUGGESTION**

1. Company should focus on Input cost. The company input cost is high that's why their profitability is decreasing.
2. Company should focus on supply chain. That will effect on their increment insales.



## CONCLUSION

The study undertaken has brought into the light of following conclusions.

- The financial Statement plays a crucial role in development of any company. So, this research focus on it.
- This study develops and empirically tests a number of methods of analyzing financial ratios to predict Solar Industries Pvt. Ltd success or loss. Methods of analysis found useful are: - **Profitability Ratio, Return Ratio, Leverage Ratio, Efficiency Ratio.**
- Overall conclusion of the company is good.
- Analysis is done on the basis of study of balance sheet and financial statement.

# **BIBLIOGRAPHY**

## **WEBSITE**

<https://www.screener.in/company/solarindustries/consolidate>

<https://moneycontrol /varsity/module/fundamental-analysis/>

## **BOOK**

NISM XV Research Analyst

Fundamentals of Accounting and Finance

Cost And Management Accounting

(Ravi M. Kishore)

# ANNEXURE

## Solar Industries India

Standalone Balance Sheet	----- in Rs. Cr. -----				
	Mar 23	Mar 22	Mar 21	Mar 20	Mar 19
	12 mths	12 mths	12 mths	12 mths	12 mths
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
<b>Equity Share Capital</b>	<b>18.10</b>	<b>18.10</b>	<b>18.10</b>	<b>18.10</b>	<b>18.10</b>
Total Share Capital	18.10	18.10	18.10	18.10	18.10
<b>Reserves and Surplus</b>	<b>1,749.35</b>	<b>1,347.49</b>	<b>1,138.71</b>	<b>1,003.28</b>	<b>866.95</b>
Total Reserves and Surplus	1,749.35	1,347.49	1,138.71	1,003.28	866.95
Total Shareholders Funds	1,767.45	1,365.59	1,156.81	1,021.38	885.05
NON-CURRENT LIABILITIES					
<b>Long Term Borrowings</b>	<b>182.47</b>	<b>118.56</b>	<b>74.65</b>	<b>63.45</b>	<b>36.89</b>
<b>Deferred Tax Liabilities [Net]</b>	<b>105.65</b>	<b>85.66</b>	<b>71.98</b>	<b>72.24</b>	<b>91.00</b>
<b>Other Long Term Liabilities</b>	<b>2.48</b>	<b>0.57</b>	<b>0.67</b>	<b>0.35</b>	<b>0.00</b>
Total Non-Current Liabilities	290.60	204.79	147.30	136.04	127.89
CURRENT LIABILITIES					
<b>Short Term Borrowings</b>	<b>238.45</b>	<b>36.09</b>	<b>20.00</b>	<b>38.74</b>	<b>45.22</b>
<b>Trade Payables</b>	<b>393.91</b>	<b>335.35</b>	<b>187.42</b>	<b>106.33</b>	<b>86.27</b>
<b>Other Current Liabilities</b>	<b>74.19</b>	<b>63.20</b>	<b>85.22</b>	<b>78.52</b>	<b>144.27</b>
<b>Short Term Provisions</b>	<b>4.57</b>	<b>4.06</b>	<b>3.70</b>	<b>3.45</b>	<b>3.46</b>
Total Current Liabilities	711.12	438.70	296.34	227.04	279.22
Total Capital And Liabilities	2,769.17	2,009.08	1,600.45	1,384.46	1,292.16
ASSETS					
NON-CURRENT ASSETS					
<b>Tangible Assets</b>	<b>857.71</b>	<b>698.58</b>	<b>552.89</b>	<b>541.11</b>	<b>468.24</b>
<b>Intangible Assets</b>	<b>0.00</b>	<b>7.61</b>	<b>4.87</b>	<b>3.69</b>	<b>2.10</b>
<b>Capital Work-In-Progress</b>	<b>0.00</b>	<b>40.78</b>	<b>127.40</b>	<b>30.43</b>	<b>73.89</b>

<b>Intangible Assets Under Development</b>	<b>0.00</b>	<b>0.13</b>	<b>2.29</b>	<b>1.91</b>	<b>0.00</b>
Fixed Assets	857.71	747.10	687.45	577.14	544.23
<b>Non-Current Investments</b>	<b>206.41</b>	<b>145.79</b>	<b>128.53</b>	<b>129.85</b>	<b>62.10</b>
<b>Deferred Tax Assets [Net]</b>	<b>5.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Long Term Loans And Advances</b>	<b>301.16</b>	<b>247.04</b>	<b>103.88</b>	<b>122.36</b>	<b>175.48</b>
<b>Other Non-Current Assets</b>	<b>122.05</b>	<b>116.64</b>	<b>84.85</b>	<b>57.96</b>	<b>23.44</b>
Total Non-Current Assets	1,492.53	1,256.57	1,004.71	887.31	805.25
CURRENT ASSETS					
<b>Current Investments</b>	<b>20.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>30.08</b>
<b>Inventories</b>	<b>460.05</b>	<b>273.87</b>	<b>142.75</b>	<b>100.28</b>	<b>93.57</b>
<b>Trade Receivables</b>	<b>539.46</b>	<b>297.75</b>	<b>294.80</b>	<b>205.96</b>	<b>185.49</b>
<b>Cash And Cash Equivalent</b> s	<b>60.95</b>	<b>25.24</b>	<b>47.63</b>	<b>64.98</b>	<b>27.31</b>
<b>Short Term Loans And Advances</b>	<b>90.38</b>	<b>39.88</b>	<b>32.02</b>	<b>25.64</b>	<b>38.32</b>
<b>Other Current Assets</b>	<b>105.80</b>	<b>115.77</b>	<b>78.54</b>	<b>100.27</b>	<b>112.14</b>
Total Current Assets	1,276.64	752.51	595.74	497.15	486.91
Total Assets	2,769.17	2,009.08	1,600.45	1,384.46	1,292.16

Solar Industries India Pvt. Ltd

Consolidated Profit & Loss account	----- in Rs. Cr. -----				
	Mar '23	Mar '22	Mar '21	Mar '20	Mar '19
	12 mths	12 mths	12 mths	12 mths	12 mths
Income					
<b>Sales Turnover</b>	<b>6,922.53</b>	<b>3,947.61</b>	<b>2,515.63</b>	<b>2,237.30</b>	<b>2,461.57</b>
<b>Net Sales</b>	<b>6,922.53</b>	<b>3,947.61</b>	<b>2,515.63</b>	<b>2,237.30</b>	<b>2,461.57</b>
<b>Other Income</b>	<b>31.52</b>	<b>19.51</b>	<b>21.28</b>	<b>41.05</b>	<b>8.55</b>
<b>Stock Adjustments</b>	<b>37.39</b>	<b>40.05</b>	<b>37.68</b>	<b>42.14</b>	<b>-10.14</b>
Total Income	6,991.44	4,007.17	2,574.59	2,320.49	2,459.98
Expenditure					
<b>Raw Materials</b>	<b>4,379.76</b>	<b>2,384.58</b>	<b>1,397.80</b>	<b>1,271.66</b>	<b>1,406.73</b>
<b>Employee Cost</b>	<b>352.72</b>	<b>289.63</b>	<b>230.64</b>	<b>206.62</b>	<b>184.20</b>
<b>Selling and Admin Expenses</b>	<b>0.00</b>	<b>23.68</b>	<b>14.50</b>	<b>16.41</b>	<b>16.99</b>
<b>Miscellaneous Expenses</b>	<b>938.52</b>	<b>9.37</b>	<b>395.77</b>	<b>350.43</b>	<b>341.57</b>
<b>Total Expenses</b>	<b>5,671.00</b>	<b>2,707.26</b>	<b>2,038.71</b>	<b>1,845.12</b>	<b>1,949.49</b>
	Mar '23	Mar '22	Mar '21	Mar '20	Mar '19
	12 mths	12 mths	12 mths	12 mths	12 mths
Operating Profit	1,288.92	1,280.40	514.60	434.32	501.94
<b>PBDIT</b>	<b>1,320.44</b>	<b>1,299.91</b>	<b>535.88</b>	<b>475.37</b>	<b>510.49</b>
<b>Interest</b>	<b>90.38</b>	<b>109.25</b>	<b>45.39</b>	<b>55.04</b>	<b>49.87</b>
<b>PBDT</b>	<b>1,230.06</b>	<b>1,190.66</b>	<b>490.49</b>	<b>420.33</b>	<b>460.62</b>
<b>Depreciation</b>	<b>128.21</b>	<b>583.39</b>	<b>93.53</b>	<b>84.53</b>	<b>58.89</b>
<b>Profit Before Tax</b>	<b>1,101.85</b>	<b>607.27</b>	<b>396.96</b>	<b>335.80</b>	<b>401.73</b>
<b>PBT (Post Extra-ord Items)</b>	<b>1,101.85</b>	<b>607.27</b>	<b>396.96</b>	<b>335.80</b>	<b>401.73</b>
<b>Tax</b>	<b>290.41</b>	<b>151.95</b>	<b>109.03</b>	<b>57.13</b>	<b>125.05</b>
Reported Net Profit	811.44	441.28	276.35	267.43	261.61
<b>Minority Interest</b>	<b>53.98</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Share Of P/L Of Associates</b>	<b>0.27</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Net P/L After Minority Interest &amp; Share Of Associates</b>	<b>757.19</b>	<b>455.47</b>	<b>288.07</b>	<b>278.67</b>	<b>282.85</b>
<b>Total Value Addition</b>	<b>1,291.24</b>	<b>322.68</b>	<b>640.91</b>	<b>573.46</b>	<b>542.76</b>
<b>Equity Dividend</b>	<b>0.00</b>	<b>54.29</b>	<b>54.29</b>	<b>63.34</b>	<b>54.29</b>
<b>Corporate Dividend Tax</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>13.02</b>	<b>11.16</b>
Per share data (annualised)					
<b>Shares in issue (lakhs)</b>	<b>905.00</b>	<b>904.90</b>	<b>904.90</b>	<b>904.90</b>	<b>904.90</b>
Earning Per Share (Rs)	89.66	48.77	30.54	29.55	28.91
<b>Book Value (Rs)</b>	<b>288.44</b>	<b>211.55</b>	<b>174.54</b>	<b>152.51</b>	<b>136.85</b>