ASSESING THE IMPACT OF CASH TURNOVER, RECEIVABLES TURNOVER, INVENTORY TURNOVER, CURRENT RATIO AND DEBT TO EQUITY RATIO ON PROFITABILITY OF STEEL COMPANIES WITH SPECIAL REFERENCE TO JSW STEEL LTD

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Abstract: This research aimed to find out the impact of cash turnover, receivables turnover, inventory turnover, current ratio and debt-equity ratio on profitability of steel companies with special reference to JSW Steel Ltd. Of last 5 years i.e. 2017 to 2021. Cash turnover ratio is used to determine the proportion of cash required to generate sales; inventory turnover ratio is an efficiency ratio that measures how efficiently inventory is managed. Methods of data analysis used in this study was multiple linear regression using SPSS. The result showed that cash turnover does not have significant effect on the profitability. Receivables turnover, inventory turnover, Current Ratio and Debt-Equity Ratio has positively significant effect on the profitability. The research also finds that between the 'Return on Assets' and all independent variables i.e. Cash turnover Ratio, Accounts Receivables turnover ratio, inventory turnover ratio, debt equity ratio & Current Ratio because the value of durbin Watson test lies between the value 2 to 4.

Keywords: Cash turnover, Receivable turnover, inventory turnover, Current ratio, debt-equity ratio, profitability

Introduction

Profitability is important and necessary for a company to survive and remain attractive to investors and analysts. According to Sartono [1], profitability is a company's ability to make profit related to sales, total assets, and capital. High profitability will support company's operational activities. It is impossible for a business to survive for a significant amount of time without making profit. therefore, measuring a company's profitability, both current and future, is critical in evaluating the company.

There are several measures of profitability, such as Return On Investment (ROI), Return On Asset (ROA), and Return On Equity (ROE). Profitability in this study is measured using Return On Assets (ROA). According to Harggave [2], return on assets (ROA) is an indicator of how a company generates profit is relative to its total assets. ROA gives a manager, investor, or analyst

an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is used to see the extent to which the investment invested is able to provide a return on profits follows what is expected based on assets owned [3].

A company's profitability is influenced by some factors that should be recognized by the financial manager in order to maximize profit. One of the factors is Working Capital. Working Capital is the synonym of current assets. Financial manager should have a good ability to manage the amount of working capital that is in accordance with the needs of the company. Working capital that is too high will cause a lot of idle funds and lead the company to suffer losses due to the suboptimal use of funds, while lack of working capital will disrupt the operational activities of company.

The efficiency of Working Capital Management has a big role in measuring a company's profitability. Working Capital Management is a business strategy designed to ensure that a company operates efficiently by monitoring and using its current assets and liabilities for the best performance. Wachowicz [4] stated that 3 main components associated with working capital are cash, account receivable, and inventory. The needs of working capital used in company's operational activities can be seen through each component of working capital's turnover such as cash turnover, receivable turnover, and inventory turnover.

The object of this research is assessing the impact of different ratios of the steel companies with special reference to JSW Steels Ltd.

Literature Review & Hypothesis

A. Financial Statement

According to Paramasivan [5], financial statement is an official document of the firm, which explores the entire financial information of the firm. The main aim of the financial statement is to provide information and understand the financial aspects of the firm. Hence, preparation of the financial statement is important as much as the financial decisions. Financial statement is the summary of the accounting process, which provides useful information to both internal and external parties.

Financial statement generally consists of two important statements including income statement or profit and loss account, and balance sheet or position statement. Apart from that, the business concern also prepares some of the other parts of statements, which are very useful to the internal purpose such as statement of changes in owner's equity, and statement of changes in financial position.

B. Financial Statement Analysis

According to Ehrhardt and Brigham [6], Financial statement analysis involves comparing a firm's performance with that of other firms in the same industry and evaluating trends in the

firm's financial position over time. Managers use financial analysis to identify situations needing attention, potential lenders use financial analysis to determine whether a company is creditworthy and stockholders use financial analysis to help predict future earnings, dividends, and free cash flow.

C. Techniques of Financial Statement Analysis

Financial statement analysis is interpreted mainly to determine the financial and operational performance of the business concern. A number of methods or techniques are usedto analyze the financial statement of the business concern. The following are the common methods or techniques, which are widely used by the business concern [5]:

- Comparative Statement Analysis: Comparative statement analysis is an analysis of financial statement at different period of time. This statement helps to understand the comparative position of financial and operational performance at different period of time.
- Trend Analysis: Trend analysis helps to understand the trend relationship with various items, which appear in the financial statements. These percentages may also be taken as index number showing relative changes in the financial information resulting with the various period of time.
- Common Size Analysis: Common size analysis is   one of the simplest methods of financial statement analysis, which reflects the relationship of each and every item with the base value of 100%.
- Ratio Analysis: Ratio analysis is a commonly used tool of financial statement analysis. Ratio is a mathematical relationship between one number to another number. Ratio is used as an index for evaluating the financial performance ofthe business concern.

D. Working Capital

Working capital is described as the capital which is not fixed but the more common uses of the working capital is to consider it as the difference between the book value of current assets and current liabilities. Working Capital is another part ofthe capital which is needed for meeting day to day requirementof the business concern. For example, payment to creditors, salary paid to workers, purchase of raw materials etc., normallyit consists of recurring in nature. It can be easily converted intocash. Hence, working capital is also known as short-term capital.

According to the definition of Mead, Baker, and Malott, working capital means current assets. According to the definition of Genestenberg, working capital means current assets of a company that are changed in the ordinary course of business from one form to another, for example, from cash to inventories, inventories to receivables, and receivables to cash. Wachowicz [4] explains there are 3 main components associated with working capital including: Cash, Account receivable, and inventory.

E) Cash Turnover Ratio

The cash turnover ratio is used to determine the proportion of cash required to generate sales. The ratio is typically compared to the same result for other businesses in the same industry to estimate the efficiency with which an organization uses its available cash to conduct operations and generate sales. The formula is:

Annual sales ÷ Average cash balance = Cash turnover ratio

Average Cash Balance= beginning cash+ ending cash/2

F) Accounts Receivable Turnover Ratio

According to Warren, et al. in Amanda [9], Account receivable turnover is the relationship between net sales and receivables, calculated by dividing net sales by net receivableson average. The higher the accounts receivable turnover, the better. otherwise, the slower the receivable turnover, the worse.The receivable turnover rate depends on the payment terms provided by the company.

The following formula can be used to calculate receivable turnover [8]:

$$\text{Receivables turnover ratio} = \frac{\text{Net Sales}}{\text{Net Average Accounts Receivables}}$$

$$\text{Average Accounts Receivables} = \frac{\text{Beginning + Ending Receivables}}{2}$$

G) Inventory Turnover Ratio

According to Suharli [10], Inventory turnover determines how many times inventory is sold or replaced with new inventory in a year, and provides several measurements regarding the liquidity and ability of a company to convert its inventory into money appropriately.

According to Weygandt, Kimmel, and Kieso [11], Inventory turnover measures the number of times on average the inventory is sold during the period. Its purpose is to measure the liquidity of the inventory. Inventory turnover can be computed by using the formula below:

$$\text{Inventory turnover ratio} = \frac{\text{Net Sales/Cost of goods sold}}{\text{Average Inventory}}$$

$$\text{Average Inventory} = = \frac{\text{Beginning} + \text{Ending Inventory}}{2}$$

H) Profitability Ratio

According to Sartono [1], profitability is the company's ability to make profit related to sales, total assets, and capital. High profitability will support the company's operational activities. There are several measures of profitability, including: Return On Investment (ROI), Return On Asset (ROA), and Return On Equity (ROE). Profitability in this study is measured using Return On Assets (ROA).

According to Hargave [2], Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. The following formula can be used to measure profitability [12]:

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

I) Current Ratio

Current Ratio is usually used to measure a company's ability to fulfill its obligations. The lower the value of CR, it will indicate the inability of the company to fulfill its short-term obligations, so that this can affect the level of profitability of the company, where companies that are not able to fulfill their obligations will be subject to an additional burden on their obligations. Suntoyo (2013) states that if the high ratio level shows a better guarantee of short-term debt if it is too high, it will result in improper working capital.

Current Ratio= Current Assets/ Current Liabilities

J) Debt to Equity Ratio

The Debt to Equity ratio (also called the "debt-equity ratio", "risk ratio", or "gearing"), is a leverage ratio that calculates the weight of total debt and financial liabilities against total shareholders' equity. This ratio is used to determine the number of funds provided by creditors with the owner of the company so that this ratio serves to find out every rupiah of its capital which is used as collateral for the debt. The higher this ratio indicates the higher the failure ratio that may occur in the company, and vice versa if the lower the ratio, the lower the risk of failure that might occur to the company.

Debt Equity Ratio= Short term debt + Long term debt+ other fixed payments

Shareholder's Equity

FORMULATION OF HYPOTHESIS

Based on the literature review, the hypothesis for this study are:

H1: Cash turnover has positive effect on the profitability (ROA).

H2: Receivables turnover has positive effect on the profitability (ROA).

H3: Inventory turnover has positive effect on the profitability (ROA).

H4: Current ratio has positive effect on the profitability (ROA).

H5: Debt Equity Ratio has positive effect on the profitability (ROA)

TURNOVER AND PROFITABILITY RATIOS OF JSW STEEL LTD

Ratios/Year	2021	2020	2019	2018	2017
Cash Turnover Ratio	6.1	7.5	24.2	80.1	39.6
Accounts Receivables turnover ratio	21.2	20.3	11.5	13.8	13.2
Inventory turnover ratio	6.6	6.7	7.1	6.4	5.64
Debt Equity Ratio	0.87	1.2	0.94	1.14	1.38
Current Ratio	0.8	0.83	0.78	0.76	0.68
Return on Assets	6.3	4.3	7.5	5.4	4.4

TOOLS & METHODS

The analysis tools & technique used in this research are Normality Test which are used by to determine if a data set is normally distributed; Linear Regression which is used to study the linear relationship between dependent variable and other different independent variables; Durbin Watson test which is used to detect autocorrelation in the residuals from the regression analysis; F test which is used in order to perform the statistical test that helps the person conducting the test in finding that whether the two population sets that are having the normal distribution of the data points of them have the same standard deviation or not and T-test is used in hypothesis testing to determine whether a process or treatment actually has an effect on the population of interest, or whether two groups are different from one another.

RESULTS & FINDINGS

NORMALITY TEST

As we have only one company data for five years, the Shapiro-Wilk test is used. Here, dependent variable is only 'Return on Assets', the p value is 0.625 which is greater than 0.05 which means that the variable 'Return on Assets' is normally distributed.

DURBIN WATSON TEST

Here, Independent Variables is Cash Turnover Ratio, Accounts Receivables turnover ratio, inventory turnover ratio, debt equity ratio & Current Ratio and dependent variables is only 'Return on Assets'. Here there is a negative autocorrelation between the 'Return on Assets' and all independent variables i.e. Cash turnover Ratio, Accounts Receivables turnover ratio, inventory turnover ratio, debt equity ratio & Current Ratio because the value of durbin Watson test lies between the value 2 to 4.

F-Test

Here, Independent Variables is Cash Turnover Ratio, Accounts Receivables turnover ratio, inventory turnover ratio, debt equity ratio & Current Ratio and dependent variables is only 'Return on Assets'. As the p value is more than 0.05 which means that null hypothesis is accepted which means that cash turnover ratio does not have significant effect on profitability. But in case of other independent variables, the p value is less than 0.05 which means that null hypothesis is rejected which means that Receivables turnover, inventory turnover, debt equity and current ratio has positively significant on the profitability.

T Test

Here, Independent Variables is Cash Turnover Ratio, Accounts Receivables turnover ratio, inventory turnover ratio, debt equity ratio & Current Ratio and dependent variables is only 'Return on Assets'. As the p value is 0.135 which is greater than 0.05 so the null hypothesis is accepted in this case which means that , the cash turnover ratio doesn't have positive effect on the profitability i.e. 'Return on Assets'. But in case of other independent variables the p value is less than 0.05, so in this case the null hypothesis is rejected which means that, the accounts receivables turnover ratio, inventory turnover ratio, debt equity ratio & current ratio has positive effect on the profitability i.e. 'Return on Assets'.

CONCLUSION

The impact of turnover and liquidity ratios has been studied many a times on profitability, but this study brings the impact of cash turnover ratio, inventory turnover ratio, accounts receivables

turnover ratio, current ratio & debt-equity ratio on profitability which is measured by the 'Return on Assets' of steel companies with special reference to JSW Steel Ltd for the period of five years from 2017 to 2021. For assessing the relationships between turnover ratios and profitability, different ratios i.e. Cash turnover ratio, accounts receivable turnover ratios, inventory turnover ratios, Debt Equity Ratio, Current Ratio and Return on Assets and different statistical tools like Normality Test, Linear Regression, Durbin Watson Test & T- test have been used for assessing the impact of different turnover ratios on profitability. From 2017 to 2021, the Cash turnover ratio is not improving year to year so the company needs to focus to increase their revenue by increasing their sales. From 2017 to 2021, the debt equity ratio is improving year to year which means the company has lower liabilities as comparison to its assets; the current ratio is satisfactory but the company needs to increase their current assets; return on assets is not satisfactory up to the point, the company needs to increase their earnings and their assets. In Normality test, the Shapiro- Wilk test is used dependent variable is only 'Return on Assets', the p value is 0.625 which is greater than 0.05 which means that the variable 'Return on Assets' is normally distributed. In Durbin Watson test, there is a negative autocorrelation between the 'Return on Assets' and all independent variables i.e. Cash turnover Ratio, Accounts Receivables turnover ratio, inventory turnover ratio, debt equity ratio & Current Ratio because the value of durbin Watson test lies between the value 2 to 4. In T Test, the p value is 0.135 which is greater than 0.05 so the null hypothesis is accepted in this case which means that, the cash turnover ratio doesn't have positive effect on the profitability i.e. 'Return on Assets'. But in case of other independent variables the p value is less than 0.05, so in this case the null hypothesis is rejected which means that, the accounts receivables turnover ratio, inventory turnover ratio, debt equity ratio & current ratio has positive effect on the profitability i.e. 'Return on Assets'.

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