

Financial Accounting
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Lecture – 70
6.1 Introducing to Financial Statement Analysis

In this video I am going to introduce you to the four broad categories of indicators that we will use to analyze the financial statements of the company. The purpose of the analysis is to gauge the financial health of the company, to identify whether any corrective measures are required to be taken.

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6.1.1 Overview

- Till now:
 - What goes into the three basic financial statements
 - Income Statement, Balance Sheet
- Now :
 - Making sense of these statements from point of view of stakeholders
 - Management, investors, creditors, government, employees, public

Having done the preparation of the final accounts, we are now going to make use of the financial indicators to convert data into information from the point of view of various stakeholders. And the stakeholders, as discussed earlier, include management, investors, creditors- who lend money, who supply resources to the business- government who is interested in knowing the taxes that are paid by the company, employees and public. Every stakeholder has a different kind of interest in the company.

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6.1.2 Types of Ratios

1. Liquidity Ratios

2. Solvency Ratios

3. Profitability Ratios

4. Efficiency Ratios

Ratios ≈ Indication

Indian Institute of Technology Madras NPTEL

The slide features a list of four ratio types. A handwritten note in red ink states 'Ratios ≈ Indication'. The logos for IIT Madras and NPTEL are in the top right corner. A video feed of a speaker is visible in the bottom right corner.

So, there are four types of ratios that we utilize. Ratio simply refers to the division of two numbers. These ratios are used as indicators. For example, to check the temperature of the body, you measure the temperature using a thermometer and that thermometer gives you a temperature number. Likewise, we are using these ratios as indicators and they give us different types of information about the financial health of the company. The ratios or the indicators are categorized into four types: liquidity ratios, solvency ratios, profitability ratios and efficiency ratios. I am going to spend a few minutes on each of these to introduce you to these categories, these types of ratios.

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6.1.2 Types of Ratios

1. Liquidity Ratios

How comfortably will the company be able to pay off its short term dues?

Liquidity ← short term
↓
Cash

Current liabilities ← *Cash*

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The slide focuses on the first category, Liquidity Ratios. It includes a handwritten question: 'How comfortably will the company be able to pay off its short term dues?'. Below this, 'Liquidity' is circled in red and labeled as 'short term', with an arrow pointing down to 'Cash'. At the bottom, 'Current liabilities' is underlined in red and labeled as 'Cash' with an arrow pointing to it. The IIT Madras and NPTEL logos are in the top right, and a video feed of the speaker is in the bottom right.

The first category of ratios is called the liquidity ratio. The term liquidity has a specific meaning in the world of accounting and finance. If you follow business news you must have come across this word because, RBI or people from finance ministry, or financial analysts, frequently talk about markets being liquid, there not being enough liquidity in the market, or RBI increasing or decreasing the rates to control the liquidity in the market. Thus, the word liquidity has a specific meaning and it refers to the availability of funds in the market. Liquidity refers to the cash in the market. So, in the context of a specific company for whom you are analyzing the financial health, the liquidity refers to the cash position of the business. As the slide says, how comfortably will the company be able to pay off its short-term dues. The *short-term* this word is important here. So, liquidity in the short-term refers to having cash or bank balance in hand to pay off your short-term liabilities. Short-term liabilities mean whatever is due in less than one year. Imagine that you have money in the bank account, but the banks are closed on the weekend. You go to an ATM machine, but the machine is not working and you are out of cash. You may have lakhs of rupees in your bank account, but right now you are suffering from liquidity issues. This is how we think about the term liquidity, the ability of the company to have the cash when it is required and the time frame for this is shorter. So, in the short run, who do you need to pay? In the short run you need to pay your current liabilities, the people to whom the current liabilities are due. These current liabilities need to be paid off and you need sufficient cash. This is a kind of analysis where we will look at related terms to say whether a business is going to easily meet its short-term liabilities or not.

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The slide is titled "6.1.2 Types of Ratios" and is part of a presentation on Solvency Ratios. It includes logos for the Indian Institute of Technology Mandi and NPTEL. The main text asks, "How comfortably will the company be able to pay off its long term dues?" with a checkmark above the question. Handwritten notes in red ink define solvency as "Solvency 'Long term'" and provide the formula "Assets < Liabilities". There is also a handwritten note "WAND" with a horizontal line next to it. A video inset in the bottom right corner shows a man with a beard and glasses wearing a white cap.

Let us look at the second category of ratios, another set of indicators which are called solvency. Now, the word solvency has a specific meaning in the world of accounting and finance and more than solvency you would have heard insolvency because many banks have gone insolvent, many companies have gone insolvent. So, insolvency basically means your assets and liabilities are not matching. Typically, the case is that assets value is less than the value of the liabilities, which means the accounting equation is not holding, or there has been a mismanagement in the company, and you may not be able to pay off your long-term liabilities. And now let me bring in this long-term world. So, the long-term liabilities cannot be paid off because you do not have sufficient cash that will be generated in the long run. Whenever you have to pay off the loan that you have taken from the bank you do not have the money or it is likely that you will not have the money or the likelihood of you having the money is very small. In such a case, we say business is going insolvent, the business will not be able to pay off its liability. So, you want to understand if the company is going to be in a comfortable position or in a less comfortable position in terms of its ability to pay the long-term dues. Long term dues are the loans that the company takes in different forms; you can take loans from the banks, or from the public which are called debentures or bonds- more advanced terms that we will discuss as we move along. The idea is the long-term loans are due after one year. So, that is how we call them long term dues. So, these, the first two indicators, the liquidity ratios and solvency ratios, deal with a company's ability to pay off short-term and long-term liabilities.



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6.1.2 Types of Ratios

3. Profitability Ratios

- ✓ What are gross and net margins of the company?
- ✓ How much return is the company able to provide to its shareholders?

$$\text{Profit} = \underbrace{I}_{\substack{OI \\ NOI}} - \underbrace{E}_{\substack{DE \\ OE \\ IE \\ NOE}}$$



The 3rd category of indicators is called profitability ratios. The profitability ratios deal with questions such as what are the margins of the business, how much returns you are making. Profit, as we understand, is equal to the incomes minus the expenses. The incomes are operating incomes and non-operating incomes, the expenses can be direct expenses, indirect expenses. And indirect expenses can further be operating expenses and non-operating expenses. I hope you are familiar with this categorization. Different kinds of incomes and expenses are there and in profitability you are not just concerned about the final profit number that you have. You are also concerned about profit at different levels. If I take out only the operating expenses from my income, how much do I make? If I take out the non-operating expenses, which category of expenses is contributing how much to my overall costs? What are the major cost drivers? What is affecting my profit? There are a number of in-depth discussions that can be had on understanding profit. Thus, profit can be defined in different ways. You can talk about gross profit and net profit, something that we have discussed, also about operating profit. What is an operating profit? It means profit only from operating income and operating expenses. There can be many further discussions on defining profit or expenses. So, profitability ratios are going to be dealing with such kinds of indicators which will help us understand the ability of the business to generate money, generate more resources, given that some resources have been invested.

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6.1.2 Types of Ratios

4. Efficiency Ratios

How efficiently is the company utilizing its resources to generate sales?

→ Stock
→ Capital
→ Fixed Asset

→ Sales

IIT Bombay
NPTEL

The final category, the fourth category of indicators, is called efficiency ratios. Efficiency, as I earlier said in a previous video, is about the input and output ratio: how much are you able to

invest and how much are you able to generate. From a company's point of view, the resources that are invested in business are stock, capital, and fixed assets that are purchased. Everything is done in order to generate sales, in order to generate revenue. For every fixed asset, how much sale is being generated, that kind of analysis. Are we investing in productive fixed assets or are we investing in not so productive fixed assets? In the banking sector there is a term called non-performing assets: these are the assets which are not paying you. If you bring that term to companies from the banking sector, then there could be non performing assets in the sense that a company can be investing in setting up holiday homes for its senior executives. Such assets are not contributing to generating sales, but are merely for employee welfare. You want to know if the company is doing such unproductive investments in the fixed assets or in other things. Basically, the idea is to say for per unit of resources which are being invested in the business, what is the output that we are generating? Are we being efficient in utilizing the resources in the business or not? These are the 4 categories of indicators and for each of the categories there will be 3 to 5 or even 10 indicators within each of these four categories. And that is what we are going to discuss, going forward.

I will see you in the next video.