Course Name: Business Fundamentals for Entrepreneurs – Part 1 – Internal Operations

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Lecture – 07

Week 4 Module 7 Part 1

Namaskar. I'm Professor Devdip Purkayastha from the Indian Institute of Technology, Bombay. Welcome to my course, Business Fundamental for Entrepreneurs, Part 1, Internal Operations. Today's module is about finance and accounting. But before I get into the course module itself, let's look at the discussion flow for the overall course. In the first week, I shared an overview of what's a business and what's company, what are company structures.

And then I talked about the big picture of a company, vision, mission, goals, strategy, culture, etc. And then we went a little bit deeper into the company and talked about how companies innovate and create new products and how do they launch and mass manufacture with the right quality those new products that they have innovated. Today we're going to another very important internal aspect of a company, which is how companies keep track of their finances. And going forward, as you can see on the screen, we'll talk about a couple of other aspects like leadership, managing human resources, and ESG.

Coming to today's module, as always, there are six topics. There will be two reflection points where I'd encourage you to take a few minutes, reflect on what you have learned, and apply it yourselves based on some of the questions I will share. So, six topics, two reflection points, and one online assignment. So let's start with what is the essence of accounting and finance. Before I get into more complicated concepts, let's start with a very, very simple example of what is accounting.

Let's take the example of a cup of tea. Let's say I make a very good cup of tea, and I've invented this new cup of tea. That was my invention. And I've launched it in the market. So, where does the finance part come in? Now let's say I sell one cup of tea at 100 rupees.

Then 100 rupees is my sales or revenue. Now let's say to make that one cup of tea at 100 rupees, I buy milk, sugar, and tea for 80 rupees. So my cost is 80 rupees. My profit is 100 rupees sales minus 80 rupees cost which is 20 rupees. So I've talked about sales, cost, profit.

Now imagine if the milk, the tea, and the sugar are all cost not 80 rupees but 120 rupees. Then I've sold for 100 but my cost is 120. So I have lost 20 rupees. So 100 rupees sales, 80 rupee cost, 20 rupee profits or 120 rupee cost, 20 rupee loss. This is the first concept of accounting and the financial statement called the income statement.

It's also called the profit and loss statement. Now, let's look at one other aspect. Let's say I have bought 80 rupees of milk and sugar and tea in the morning and through the day I have sold 100 rupees. So I've made a profit but the person who bought that cup of tea said I will pay you after two days. So I've spent 80 rupees, that's my cost.

I have sold the cup of tea at 100 rupees, I've made a profit of 20 rupees but I've run out of cash because the person, my customer, is paying me after two days. So I'm what is called broke or if a company goes broke it's called a bankrupt company. And this is the concept of cash flow. I may make a profit but if I don't have cash on hand I'll go bankrupt. In this case, next day I cannot buy another 80 rupee worth of raw material, milk, tea and sugar to make my tea and sell it for 100 because I don't have money.

So, I talked about the concept of an income statement or a profit and loss statement and I talked about the concept of a cash flow and how you can go broke even if you are making profits. Let's talk about a third dimension. Let's say I have brought 80 rupees worth of milk, sugar and tea from a grocery shop. So I have bought a cup of milk but because I don't have money in the morning I have taken it on credit. So I have taken a loan.

So, if you look at the morning what do I have? I have got 80 rupees worth of raw material and I have got a loan of 80 rupees to the grocery store. So I have got an asset which is my raw material but I also have got a liability which is the loan that I have taken from the grocery store. This is the concept of a balance sheet. So remember there are three important concepts.

The profit and loss. The cash flow and the balance sheet. All this is with a cup of tea. Now let's say I do very well and I keep expanding and expanding and I grow. Keeping track of one cup of tea is very easy.

I can keep it mentally. But let's say after one year I am selling 10,000 cups of tea every day. I also have ten flavors of tea. So I have got ten types of tea and I am selling 10,000 cups of tea.

I also sell coffee. Another 10 kinds of coffee and 10,000 cups. I also sell biscuits and some other kind of food. So suddenly it is much more complicated. I have got many products, many cups, lots of milk because for my tea maybe I have to buy milk, sugar, tea in big bags, lots of money. I may also have to have flavors for the tea, coffee powder.

For the biscuits I have to buy some raw material, flour, etc. Suddenly it has become a complicated business. Now let's assume that I have now opened a store, a tea store or a tea restaurant. Now my asset is no longer just raw material, tea, sugar, milk, coffee powder, etc. I now have an asset which are the chairs and tables in my restaurant.

I may have invested in buying that restaurant. So I have got an asset which is like a room, like a restaurant. So I have got assets. I may have taken loans to buy those chairs and tables and the room itself. So suddenly I have become much more complicated as a business and that is one store.

Now let's say I keep growing and I keep growing like Starbucks or Chaiyas or one of those big chains and I have 10,000 stores. So suddenly I have hundreds of products to sell, hundreds of raw material to buy, hundreds of assets to manage. So, it has become complicated. And then I hire people and then I have to pay them salaries. I may have 100 people, 1000 people.

So suddenly this is what a business, a big business can look like and those of you who are starting your own business will have to learn because otherwise if you don't learn finance, like a simple chaiwala selling one cup of tea, I may not make profit. I may make a profit but run out of cash. I may have a lot of assets but also have a lot of liabilities and I may not be able to pay back. Again, I go broke. So if you are starting your own business you have to understand the concepts of accounting and finance.

So that was a preamble to the lecture itself because it can get very complicated and since this is a fundamental course, I will not get deep down into the details of accounting and finance but try and give you an overview. So, let's get into the actual lectures. So, what is accounting? By now you would have probably understood that accounting is essentially the process of collecting, measuring, processing, storing and sharing financial and other related data. Financial data, sales data, cost data, assets, liabilities, overheads, etc. So, that is accounting in its simplest form.

Now to account for that, for one cup of tea, the example that I gave, I can do it in my mind but if you are doing 10,000 transactions every day or 100,000 transactions every day you need to have a process and therefore you need documentation. In the early days the documents were written notebooks. You could write it down and you could have your accounts in a notebook or a kata in India. As you grow and as computers came in you could computerize it and you could automate it and then financial software came in and you could use those software. So the first task is to record all those transactions but then you have got hundreds and thousands of transactions so they have to be summarized into simpler statements and those are called financial statements and I will talk about all of that in a minute.

And why is it important? A, you have to keep track of the business but also for the investors or the banks who lend you money to understand what is the actual value of the company. Is the company making profit or loss? Is it running out of cash or has enough cash? How strong is the balance sheet? So, all of that is accounting. So, let us look at the accounting process. The first step and the simple step is to record and collect all the source documents and I will talk about source documents in a minute. And the source document, believe me, for even a medium sized company can be full of rooms that source documents and we will talk about types of documents.

It could fill up cabinets and rooms, sometimes warehouses because there is so much of source document even if you today scan it and store it electronically. But then all of these have to be recorded either in a document form or in a software. So we have got different steps of documentation called journals, ledgers and once you have done all of that you have to start summarizing them into some standard formats because nobody else can read one thousand or ten thousand or a hundred thousand or a million transactions. You have to be summarizing it and there you get into trial balances and financial statements. I will do a case study later but before the case study let us look at what the source documents are.

So, let us look at the source documents. As I said the source documents can be many but at a basic, many source documents have some basic information like which day was the transaction, what is the total money involved in the transaction, a description of the transaction and someone who has authorized it. So, what are the typical documents? It could be a cheque which I have issued, it could be an invoice, it could be a receipt, it could be a credit memo, it could be a deposit slip in a bank, a purchase order for something, an employee time card because you have to pay hourly wages maybe. So, these are all source documents. So, what are the documents? All of you will be using source documents because if you are employees and you are claiming reimbursement you will probably have a travel bill or a food bill which you will give to the company for claiming reimbursement.

In a personal life if you go shopping you will get an invoice. If you are paying a credit card bill, you are probably writing a cheque. So, that gets into personal finance. So think that your same kind of documents that you have in a personal finance, personal life, companies also have that except in larger numbers. And then the source documents have to be gathered and all those thousands of pieces of paper have to be written down what is called an accounting journal which could actually be a journal like a notebook for a small business or it could be a computer software nowadays for a big company.

Now, think about when I was making the tea. I could just run a list in a notebook of everything. Bought milk, 20 rupees. Bought sugar, 30 rupees. Bought tea leaves, 40 rupees. Sold one cup of tea, 100 rupees revenue, plus-minus and it's a long list.

And that was how it was done hundreds of years back. But the modern way of doing it and the usual way of doing it is what is called double-entry bookkeeping methodology. Double entry. Without getting into too much details and, those of you who are interested in finance and want to do a chartered accountancy or a cost accountancy or want to do an MBA in finance or do a commerce course will know much more about it. But for generally a, double entry bookkeeping essentially is all about classifying the transactions into debit or credit.

And that's why it looks like that. On the left side, you'll have your debit entries; on the right side, you'll have your credit entries. And it's called a T-account, and all of you probably have seen it, and you're probably using it because your bank account, those of you who have opened bank accounts, you're probably used to it except you probably not thought about it like this. So if you look at a typical bank account you'll probably get a bank account statement like this. There'll be a date, there'll be a transaction list and there'll be a debit or a credit amount. If you get money in it could be a salary, it could be a dividend, it could be an interest. If money comes to your account, it's a credit entry into your account.

If you spend money through UPI or credit card or through a check it's a debit to your account. So all of you are using T accounts, debit, credit in your personal lives. Companies use the same, except the volumes are much larger. So what has happened is source documents, individual transaction, be it your in your own life salary coming in or an interest coming in or you are paying a restaurant or buying a ticket, those are all getting summarized into this statement, a T account statement. So now when you have all of these in your personal life also you may want to make some analysis.

In your personal life you may want to say okay my income is so much through salary or my business or whatever, I'm getting 100 rupees as salary, how much am I really spending? If you are spending 80 rupees and your salary is 100 rupees you are saving 20 rupees and that's your income statement. But if you are spending 120 rupees and your salary is 100 rupees, you are probably taking a debt, a credit card debt, or a debt from a shop or a debt as a loan, and you don't have savings, then you have a liability. So in your personal life also I would encourage all of you to understand the basics of financial statement. Right at the beginning I gave you an example of a one cup of tea and I explained to you the concept of balance sheet, income statement and a cash flow. And I would encourage you to keep an account in your own lives of a balance sheet.

How many assets do you have? How much are they worth? And do you have a loan against it? If you buy a house you have an asset but if you have taken a loan against it you have a liability. If you bought a car you got an asset but if you have taken a loan you have got a liability. So, that becomes a personal balance sheet. Companies have the same except companies may want to own a factory, a restaurant, an airplane, a ship for their business and they have liabilities. Owners would have put in their equity, banks would have given them some loans, investors would have given them some money against equity.

So, they also prepare a balance sheet. They also keep track of the profit and loss and I will do a case study so it becomes clear on how large companies do that. And cash flows. Just like as you don't want to go broke that you have got your salary of 100 rupees in the first of the month but by 20th of the month all that 100 rupees is gone and you don't have cash.

You are broke. Then you take a loan. Companies also very carefully monitor their cash flows. So that's the accounting world very simply put. Let's look at a case study. It's a mini case study of a very large company or a very good company, a very famous company, a very respected company called Larson and Toubro.

Many of you would have heard about it. Some of you may be working in that company. And what I am using here is a typical investor presentation which you yourself can see if you go to the website and the link that is there at the below because the company, Larson and Toubro or any other company will present this to their investors. So it's called an investor presentation. So let's look at are they using what I have talked about in the last few minutes.

So let's look at this slide which is actually the, let's say the company that provides profit and loss and income statement.

I talked about in the context of selling one cup of tea, the sales and the cost and therefore the profits. You can see exactly the same thing being presented by very large respected companies such as L&T to their investors except the numbers are huge. So if you look at the top it says rupees billion and then if you look at the column in blue on the right side which says FY23, you will see if you read the numbers correctly, their sales is 1,83,000 crores. I will repeat that slowly.

1,83,000 crores or 1,83,000 crores. So, if you look at the bottom, you can see that they are selling for 1,833.4 billion rupees. That's the sales. And if you look at the percentage var which means percentage variance which means percentage change, it's 17% growth versus previous year where they sold 1,56,000 crores.

And then you have got other parameters. But without getting into much detail, now let's look at the cost and then we start looking at cost items such as MCO expense. So if you look right at the bottom, you will see MCO is manufacturing, construction and operating expenses. But it's an expense. Just like if I make a cup of tea, I have an expense on milk, sugar and tea.

L&T also has expenses. This is MCO expense. Then they have got financial charge OPEX. And you can see at the bottom, it relates to their financial service business and leasing. And they have got staff cost because they are hiring people. And they have got sales and administration cost. So if you deduct all the costs, they have got what is called the first level of profit.

And without getting into too much of details, it's called earnings before interest, tax, depreciation, amortization which is the first level of profits. And you will see that they have made 207 billion rupees of profit or 20,000 crores of first level of profit which is EBITDA. So I gave you the example so far of a very simple case of one cup of tea and here is a giant company reporting its sales to these investors. And then there are more details on the same profit parameters. Without again getting into too much of details, you will find that the EBITDA which is the first level of profits is about 20,000 crores and they have got certain other costs.

And then if you look at right at the bottom, you get into the reported profit after tax because you have to pay tax to the government of 104 billion, that's about 10,000 crores. So if you look at it in totality, they have sold right on the top in the blue colored column 1833.4 billion rupees, that's the revenue of sales. And if you look at the bottom, the reported profit after every cost including taxes is 10,000 crores or 104.7 billion. The concept is the same. This is called the income statement or the profit and loss statement. Now, when I talk to the cup of tea, I give a very simple example of: I have got a stock of milk, sugar and tea but I have taken a loan from the grocery store and that's my balance sheet. I have got an asset; I have got a liability. Now look at how a well giant company can have a rich balance sheet, a complicated balance sheet but again remember there is a summary. It looks very simple but underneath it is probably lakhs or millions of individual transaction.

So, if you look at the balance sheet, you will find right on the top sources of funds which in the example of a cup of tea is a loan that I took from the grocery store. So I have got a rich shop. So that was my source of fund, the loan that I took from the grocery shop for my milk, sugar and tea. Here for this company L&T, the sources of funds are from equity which means from their owners and reserves which means money that they have collected themselves in the business and there are other sources of funds without getting into details.

So, the sources of funds if you look at it is 2,188,000,000,000 rupees. That's about 2,188,000 crores of rupees. Where is all this money now being used? Remember in the concept of one cup of tea, I took a loan from a grocery store and my asset is milk, sugar and tea but for this large company, the assets if you look at it, fixed asset. Fixed asset is factories, plants, machinery, fixed because you can't move them around, land, office. If you go to Bombay and you go to Powai, you will find big offices, which are L&T offices. That's their assets and then there are other kinds of assets which together then give an application of fund and again it says 2,188,000,000,000 rupees and you will see that the source of funds matches the application of funds.

Why is that? Think about the one cup of tea. I got a loan from the grocery store of 80 rupees and I bought milk, sugar and tea of 80 rupees. So 80 rupees of assets, 80 rupees of liability matching and the same thing here is matching even for a large company. So, the concept is the same. The scale is different and then there are other ratios.

So, I talked about the profit and loss or income. I talked about balance sheet and the third thing remember I talked about was cash flow. I talked about you may have made a profit but if your customer doesn't pay you, you will go broke. You will not be able to continue your business because you don't have money to buy your raw material. Same concept here for L&T, and you will see that they are saying what are the operating profits.

If you look at FY23 operating profit on the right side, you will see 225.2 billion rupees. That's 22,500 crores of operating profits and then they are figuring out where they have collected money or spent cash and if they have spent more money than they have collected, then they are negative on cash flow. But in this case if you go all the way down and without getting into all the different ways, you will see that the net decrease or increase in cash and bank balance is 28.9 which means that you have got extra cash in 2023 fiscal year of 28.

Nine billion rupees, which is about 2,800 crores. So you will see that so they are cash positive. So these are the three key concepts that I talked in the example of one cup of tea and then I have shown you a mini case study of a large company presenting to its investor. So here is the first reflection point. In your journal, write down the three key concepts and think about a company that you would like to join or you are working for. Go to the website and look on the internet for the annual report, which looks like the case study that I showed you.

So, find that. Try to look at a summary version because some of the annual reports can be hundreds of pages. So look for a summary version and see if you can identify the profit and loss, what is the sales and what are the costs and did they make money, did they make profits. Try and find out about the balance sheet. How much assets do they have and how much loans and liabilities do they have?

Try and find out whether they are cash positive or cash negative. They will all be there in the annual report. You just have to look for them and study any financial ratios which I will talk about later that you can find. Start getting used to looking at annual reports. Those of you who continue to do a chartered accountancy, cost accountancy, MBA finance, commerce, BBA, etc., finance-related course, this will be your job. But if you are an entrepreneur, you have to have some basic understanding of finance. Even in your personal lives, all of you need to understand this basic concept of profit and loss, cash flow, balance sheet in your own lives. Except in your life, a profit and loss will be the income which could be a salary income or interest income, dividend income and the loss means how much are you spending, your income statement, the person. So, I encourage you to reflect and do this exercise. Thank you.