Business Analysis for Engineers
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Lecture-15
Summary of Financial Accounting

Good morning class in the last class we had completed almost the sub stand to portion of financial accounting. And when we begin this course I had clearly mention that there will be 2 parts. In accounting that will be handling one is financial accounting and the next one is management accounting. So, we would be entering into sessions related to management accounting and before I venture to do that I would like to quickly summarise.

And give you a snapshot that will capture the basic essence of financial accounting for the benefit of those who could not attend to some of the previous sessions. And also I had already told you that the purpose of this entire course is to enable you to intellectually engage in a conversation. That is got something to do with financial accounting in some form. Whether it is a balance sheet or in a income sheet or some terminologies used in financial accounting with that perspective also.

Before I spend some time on management accounting I thought I will quickly provide a quick summary of all those important topics that we will tell in financial accounting. The very purpose of accounting as I said before was to collect information and for collecting the information. We will have to identify what type of information is relevant record that information, and communicate in a way, that it is best understood by the user group.

The financial accounting is one form of accounting where we identify measure and communicate all sets of activities that happen within any entity. And in the process try to create financial statements a balance sheet and income statement and a cash flow statement all 3 independently conveying some sense on the way in which the organisation is functioning. And the reason that we do this is essentially capture information.

Because the purpose of accounting by enlarge is to capture information and communicated in a way that it is understood uniformly by any end user for various decision making.

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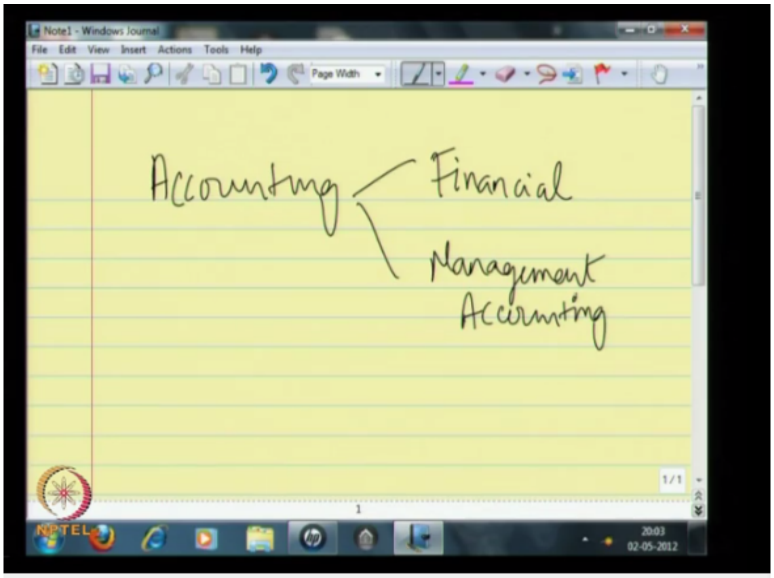

If were already explained the 2 major forms of accounting and we will be spending some time on understanding the difference between these 2 types of accounting namely the financial and management accounting.

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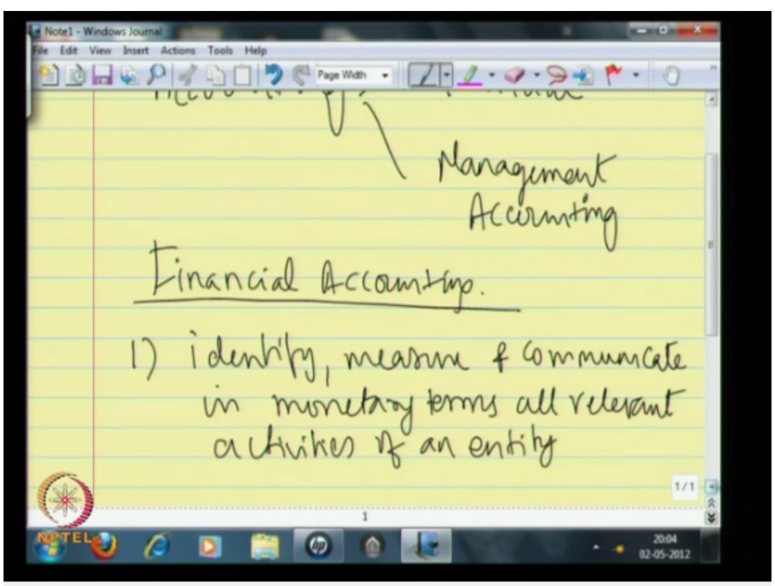

As I said before I will be quickly providing you a summary of what financial accounting is all about. Financial accounting is as I told you before, it tries to identify measure and communicate in monitory terms all relevant activities of an entity.

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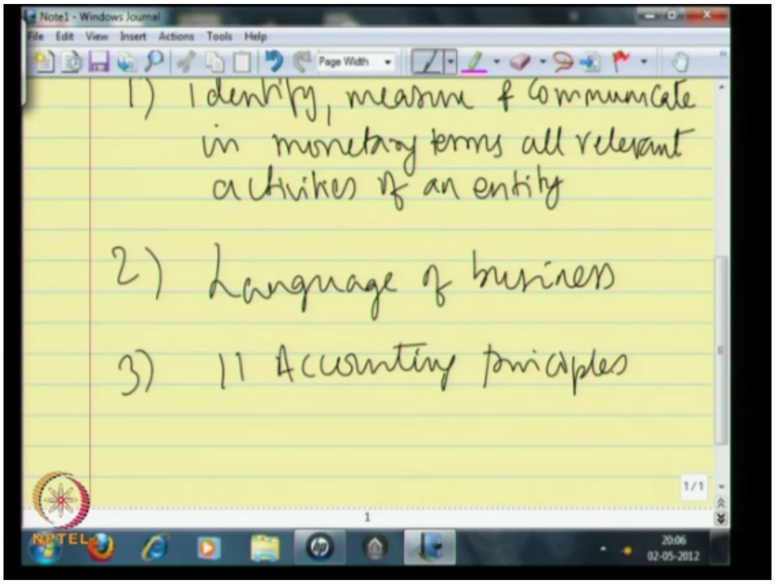

And hence it becomes the language of business and since it is identified as the language of business. There must be some syntax some nomenclature that makes it uniform. As a result of which a balance sheet is interpreted the same way given all things being equal in India or in the U.S or in Europe wherever you are geography is disappearing. There is a common syntax that is followed for the purpose of understanding these financial statements.

As a result of which financial accounting is popularly called the language of business. Now when it comes to following uniform syntax. It means that there must be some set of principles which form the underlying basis on which these 3 requirements of identifying measuring and communicating in monitory terms these activities have to be done. So, the language of business or financial accounting has basically 11 accounting principles. And these principles form the underlying basis on which the entire accounting concept rest.

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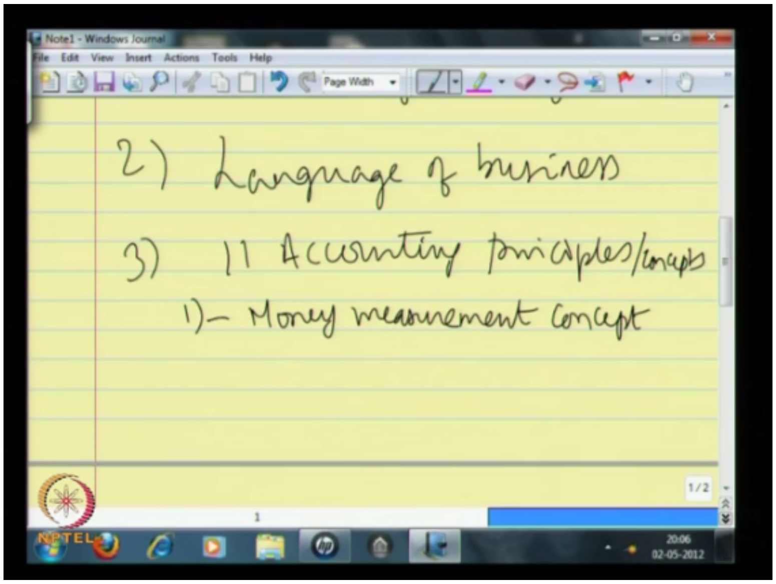

The first one would be the money measurement concept, principles or concepts. I would rather use concepts the money measurement concept is the fundamental requirement, that governs accounting principles which means that all the activities at happened within a given entity that needs to be recorded has to be expressed in some monitory terms. It does not make sense to record, that an entity has 3 terms of inventory 20,000 square feet of building.

And that does not show up as 20, 000 square feet and 3tonnes of inventory in your balance sheet. And even if it shows up it does not really make any financial sense, it make some sense. But then for the purpose of balance sheet, it does not make any sense. Now the money measurement concept is one that enables or necessities that all the activities that are required to be communicated needs to be expressed in monitory terms.

And the type of activity that happens in your organisation is very diverse. So, for all these heterogeneous activities you need one homogenous identity. And this homogenous identity is the expression of all these activities in monitory terms. In short all these heterogeneous activities needs to be need to be identified in monitory terms. It has to be monetise so, 20,000 square feet of building needs to be expressed as 2crores rupees in value 3tonnes of inventory needs to be expressed as sum value in rupees.

And only when all these activities get monetise and expressed in monitory terms, it makes financial sense when these sit either in the balance sheet or the income statement. So, that is the first fundamental concept based on which the accounting principles are framed. The second one is the entity concept the entity concept clearly draws a line differentiating the owners, or the individual who run the company as against the entity itself.

And I gave you very simple example when as a owner, if I take some money from the entity, it does not mean that I have to be oblivious to this activity. Though I am the owner the fact that, I take from the entity needs to be recorded as an accounting information. Because, the owner is different from the entity, so the entity concept clearly differentiates the owner of the firm from the firm itself. And you need to appreciate that because at times people think that the owners.

And the firms are one and the same but from an accounting perspective they are entirely 2 different entities. One is the firm the other is the owner of the firm which is who or whose totally different from the entity itself.

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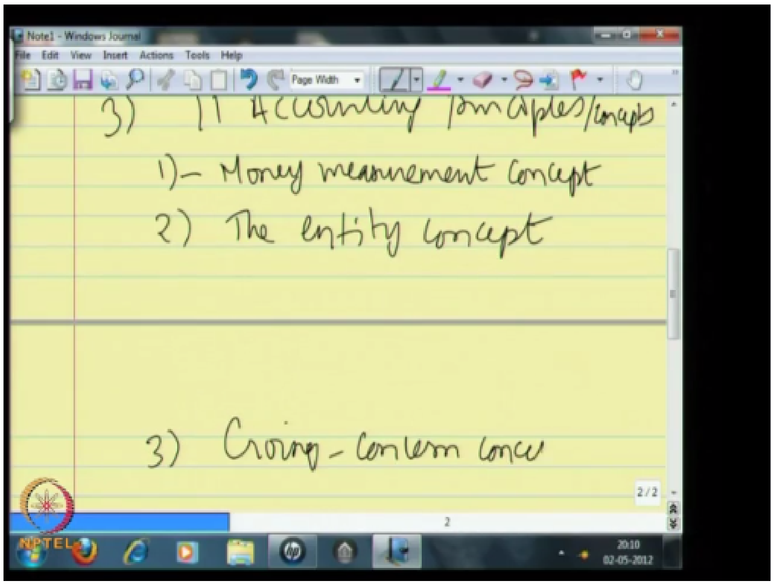

The third assumption is the going concern concept the third concept is the going concern concept.

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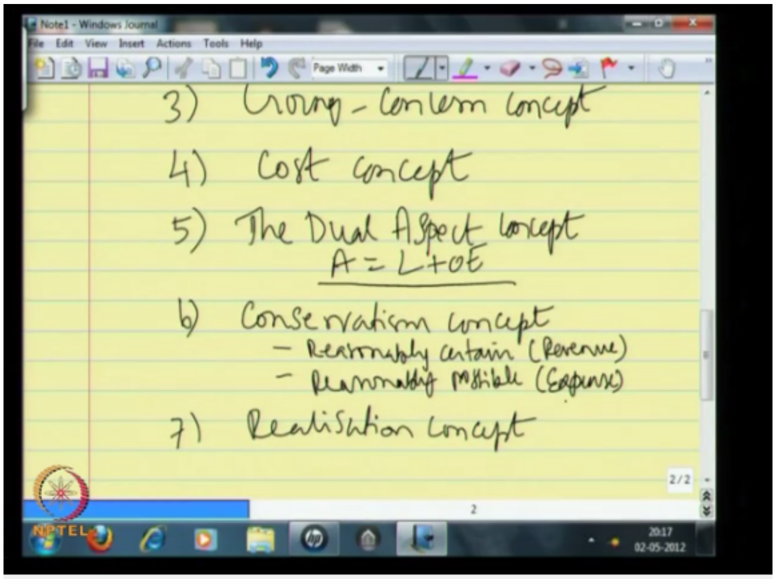

As a name suggest the going concern concept is one that believe is that entity for which we are record all these information is assumed to exist for a perpetual period of time. Now this is the fundamental assumption that is reasonably valid, because we are trying to understand the principles of accounting for entities. That are assume to exist for ever so, going concern concept justifiably assumes that any entity exist for perpetual period of time.

It is not that it is going to today and going to wind up business in 2 months from now. But of course there are some operations which have shorter durations. And still these concepts are applicable for those, but then we will deal it in a different way a majority of the accounting information that is collated for various entities however assumes that such entities exist for a perpetual period of time.

The fourth concept is the cost concept which we discussed at length when we actually had discussions on balance sheet, depreciation, acquisition when activities relating to acquiring new assets where discussed. The fundamental assumption is that the cost concept records, the cost of an entity the economic resource of an entity is always recorded at it is cost of acquisition. And there by there is no rooms scope for any subjectivity in the recording.

Now suppose you look at the balance sheet and you buy some land at some point of time for 10 million rupees. It gets recorded at the cost of acquisition and the with the entity 5 years, 10 years and at the tenth year if you look at the balance sheet still the cost of the land will be recorded the value of the land will be recorded in your balance sheet that the cost of its acquisition which is 10 million 10 years back.

We do not record the value of that particular asset any economic resource for that matter at it is future value or at it is expected value. Because then that gives room for a lot of subjectivity because different people have different valuation models. As a result of which there might be different values for the same underlying asset. Now to make sure that there is no room for such subjectivity the cost concept assumes that all economic resources of any entity needs to be recorded at it is cost of acquisition.

And as on when and asset gets used if that asset needs to be depreciated it is the annual depreciation that gets reduced from the value of the economic resource. The fifth concept is the dual aspect concept in which we saw that the fundamental equation. When we discussed about the balance sheet is that the assets will be equal to the liabilities+owners equity. And any activity that happens within an organisation within an entity will impact the accounting records in such a way.

That this fundamental equation assets is equal to liabilities+owners equity this not compromise. So, there is a dual income ensure that on onside the asset on the other side the liabilities+owners equity remains equal. And that when every transaction happens each transaction has a dual impact that does not compromise the integrity of this fundamental accounting equation. Remember this is the fundamental accounting equation assets is equal to liabilities+owners equity.

And we will also understand how this is recorded in actually get into the double entry book keeping. The sixth accounting principle is the principle of conservatism, the previous 5 concepts are in a way related to activities. That has a huge impact on the balance sheet and the remaining that we will be discussing are the once that not all the remaining but the most of the remaining concepts will be the concepts that will have an impact on the income statement.

The conservatism concept is about the principle regarding revenue recognization and this is where I had reiterated, and I would like to reinforce now. That it follows the concept that revenue will be recognised, if it is reasonably certain and expenses if it is reasonably possible, a classic example is always when I walk into in a to a automobile dealer showroom and says that and save that I need a car.

The dealer should not record that as a revenue, though I would end up purchasing the car 2 months, 3 months from now. But suppose the same dealer looses or a car gets stolen then has to be recorded as some bad expense. Though the dealer believes that 3 months, 4 months down, the line there is every possibility that the car will be recover. You will understand that, when it comes to recognising revenues has to be recognise only.

If it is reasonably certain it is reasonably certain that the revenue can be generated, and contrary to that expenses have to be recognise. Then actually there is some possibility that it could be incurred and this is the principle the concept of conservatism. So, conservatism is about the timing and the next concept is the realisation concept which is more about the amount conservation is about timing.

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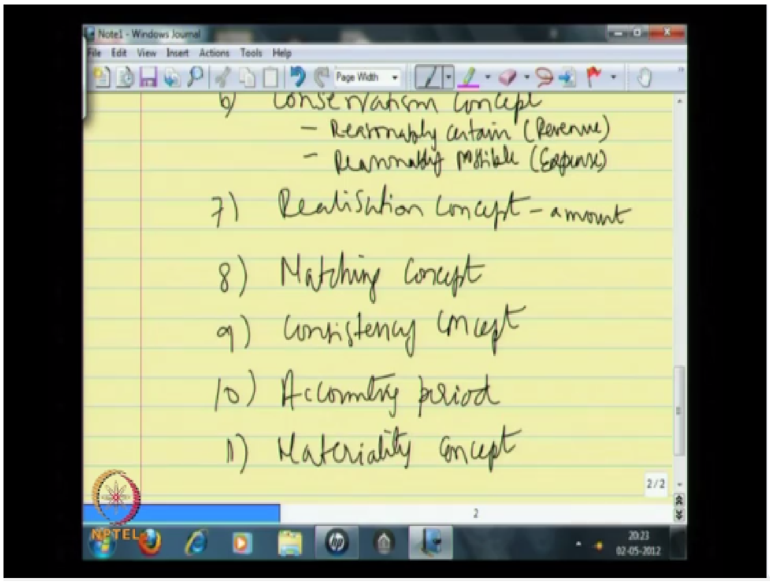

The realisation concept is about the amount and based on historical experience, if you make a sale on credit to what extent will you be able to get the entire collections for the sale. That depends on the type of customer the historical record that the customer is got with the entity. So, based on that to that extent you will realise the extent of revenue that will be recognise. The next concept is the matching concept the matching concept is the fundamental to the matching concept is that given an accounting period.

All the revenues and it is related expenses need to be recorded within the same accounting period. So, if you are recognising revenue within an accounting period the expense is related to that revenue within that accounting period needs to be match to fit. So, this is the matching concept and only if we are able to follow this matching concept will your financial statement actually be accurate.

Because it is only the expenses relevant to the revenue and both of them when captured within this same accounting period makes more financial sense. So, that is the fundamental to the matching concept, the next is the consistency concept. Now consistency concept assumes the need for following the same procedure methodology for recording activities in a given particular way and as long as you follow the same methodology.

And you do not change methodologies frequently then your financial statement the resultant and financial statement is in perfect order. That does not mean that you cannot change the way in which you record transactions. But consistency concept only requires that such changes or in frequently done for example you might change the way in which you would like to deprecate an asset, it is possible except that you do not do it straight line the this year.

Then next year accelerated then again the next year straight to such types of frequent change, the way in which you record these transaction do not happen. And if at all when you actually change the way in which you do this you would see at as a food note in these financial statements that they would record that till last year we followed this principle. And from this, this year we are actually changing the way in which we have recorded these transactions.

But by enlarge there is a consistent way in which such transactions are being recorded and this concept ensures that there is in inconsistency in the way in which these transactions are recorded.

The next concept is the accounting period concept, now every day in a given entity has the set of activities. And technically every day you can end every day by creating an income statement and balance sheet for each day.

But that is not the purpose we are interested in understanding these financial statements over longer accounting period. And typically for the sake of uniformity and convenience in understanding and accounting period that is why you would see you would find the annual reports. The talks about the balance sheet and income statement for a given particular year and across the glow the standard accounting period is assumed to be 1 year per the same time.

You also need to meet the regulations set by various you know stock exchanges. I am talking about companies that are listed in a exchanges, where we will have to file information every quarter. So, that is why you would see companies also filing quarterly returns that talks about the balance sheet and income statement for a given quarter. So, that is why you would see quarterly balance sheet and income statement.

And the aggregate of these 4 quarters is your annual report that you see at the end of every financial year. So, by enlarge the accounting period is assume to be 1 year. And at the end of every year we would see annual reports publishing these balance sheets and income statement. The eleven principle is the concept is the materiality concept now materiality concept the fundamental understanding a given is that.

I am interested in monetising in expressing in monitory terms evens that have a significant material impact. So, I am interested in only recording such transactions and the classic example that I usually give to class is that the fact that I purchased 1 box of stapler pins does not mean that the entity owns an asset. Though it is an asset I do not record it as an asset in a balance sheet item. In a balance sheet item I do not record this stapler pin as an asset rather the money.

That I spent to buy a stapler pin I would rather treat it as an expenses stationary expense, and that gets reflected in my income statement. So, the materiality concept is one that assumes that only activities that haves significant material impact needs to be recorded appropriately that does not mean that activities which are not significant need to be recorded. But then has to be dealt based on it is significance that is the materiality concept.

So, if you find all these 11 concepts, and if you are able to understand these 11 concepts then you will know that these 11 concepts actually form the very foundation on which accounting principles or evolved. Now with these 11 concepts how do we actually record these activities in an organisation. And for that the standard methodologies that is followed world over is the double entry book keeping.

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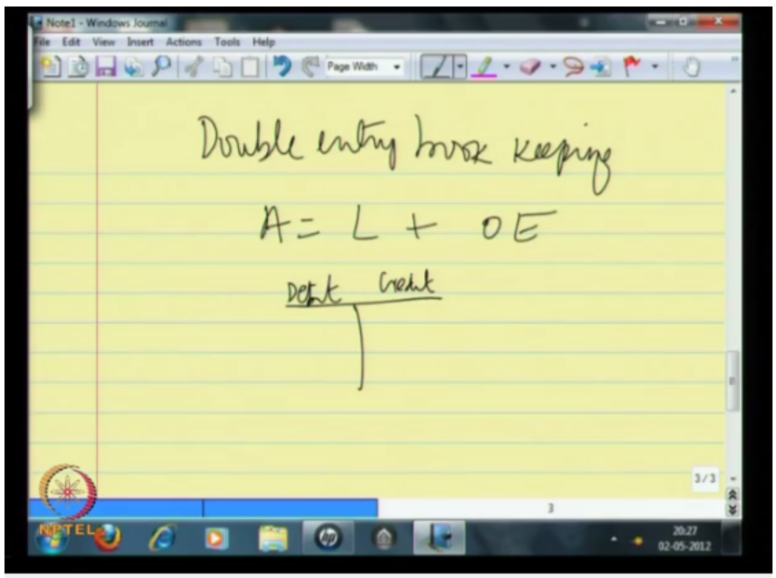

And what is it I told you that the fundamental equation is assets equal to liabilities+owners Equity. And the double entry book keeping is just one way of recording all these transactions by identifying each of the transactions as a particular account activity. An each activity has an account head like cash or inventory or accounts receivables, sales asset purchase. So, each of them is an account.

And each of these accounts get recorded in a manner appropriate based on what happens to the account as a result of the transactions. And how do we record that we record these transactions in monitory terms by entering 1 in a debit side. And since one of the fundamental concepts of accounting is it is double the dual impact. There needs to be something called a credit and do not get confused by debit, credit and add attach some grammatical interpretation.

The English grammatical interpretation to within accounting debit simply means the left hand side and credit implements the right hand side that is it. And when we record each of the transactions and it is impact to a particular account. We just use this particular t this is the t the t account and record the impact of the transaction to that particular account. And how do we know what is the impact.

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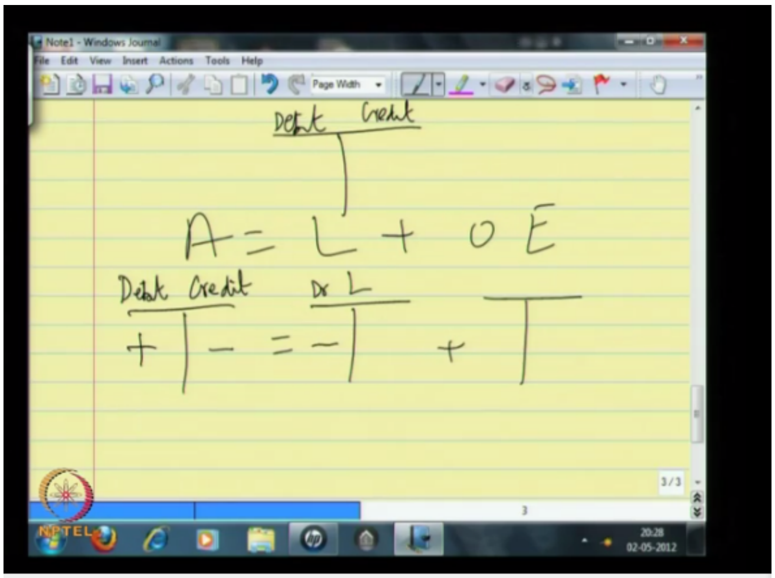

Now this is very important that you need to understand that any increase in asset is debit. And the rest simply follows. So the fundamental assumption non-negotiable is that any increase in asset is debit. Now if any increase in asset is debit then any decrease in asset is credit. Then any decrease in liability is debit, any increase in liability is credit.

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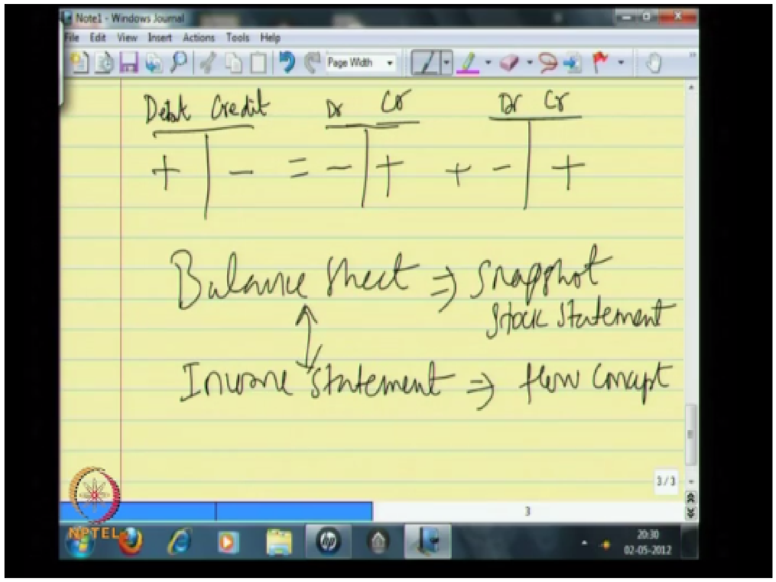

Likewise any decrease in owner's equity is debit, any increase in owner's equity is credit. Now this fundamental equation and the way in which we record in monitory terms the transactions that impact a given account by following the debit, credit double entry book keeping is the heart and soul for this accounting. And it is based on this that we actually creates these 3 financial statements. Now assume that you have to do this for an entity and that 1 year has pass.

And that you have recorded all the individual transactions that have impacted various accounts cash, inventory, accounts receivable, accounts payable, loans. So, you have various accounts each of them has an account title and the aggregate the summary of all these accounts at the end of a given accounting period is what you find in a balance sheet or in income statement. A balance sheet is a snapshot or a stock statement which provides information regarding the financial strength of the entity.

And in income statement is a flow statement that provides information on the financial performance of the entity. But then both of them are linked and I told in class that I would consider an income statement little subordinate to a balance sheet. Because, the balance sheet is the real statement that gives more information on the financial strength of the entity, and if you look at the balance sheet that is where you would find the assets and liabilities in owner's equity on the other side.

And do not be surprise that yours assets is equal to liabilities+owner's equity it has to be that way only then it is a balance sheet. And it will be that way as long as you follow the concepts and record transactions without comprising on the integrity of the fundamental accounting equation. Where the income statement talks more about the financial performance where you start with saves the cost of goods sold, expenses on the net income. And before, we actually prepare this balance sheet and income statement.

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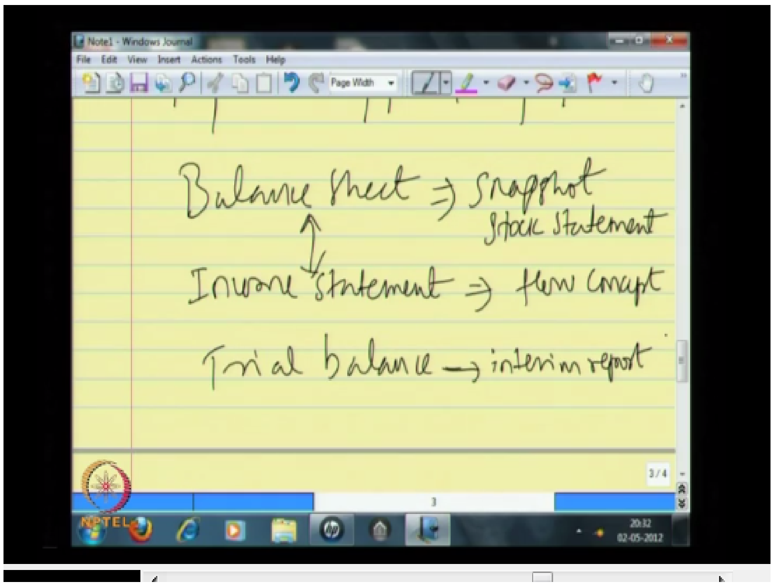

You also create a trial balance which is an interim, interim report which we use to ensure that before we advance to a balance sheet and income statement preparation. It is just a checking mechanism to ensure that all the transactions that we have recorded. A recorded correctly, and how do we do this check explain, that for each of the account you find the closing balance. And record them as a debit or credit.

And the summation of all the debits and summation of all the credits will equal that is this signal that tells you yes if you go head. And prepare a balance sheet from here your balance sheet will balance. But that does not tell you that all the information or the way in which you have recorded this transaction is correct. You could have made an error on the right side and still your trial balance will show that your debit is equal to credit.

And if you go head still your balance sheet will be balancing but then it does not provide correct information. Your balance sheet it will balance but then the balance sheet is not correct. So, a trial balance is an interim check just you ensure that your debit is equal to credit. And if it is not it tells you that, there is some mistakes somewhere, and you have to go and rectify those mistakes. And we also dealt could 3 special cases in these accounting categories.

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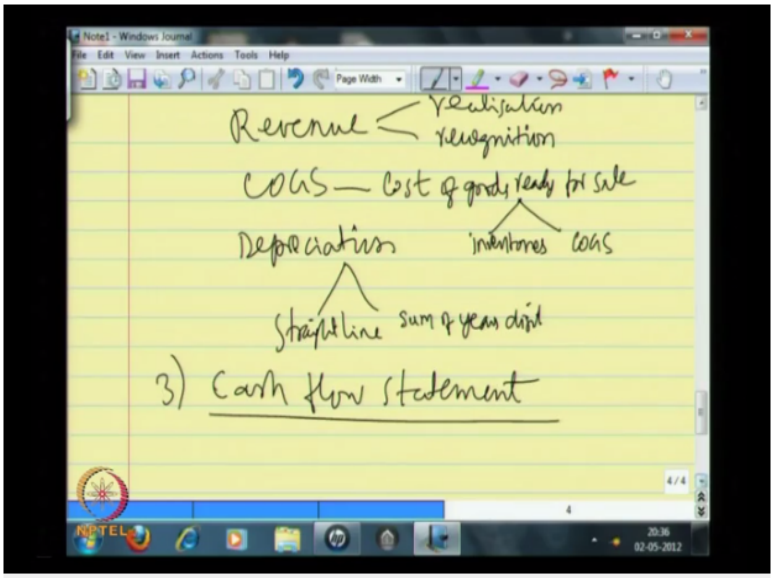

The revenue the cost of goods sold and depreciation and revenue this can be elaborated at length. But then we restricted so, that we understand that the 2 important requirements is on the realisation and recognition. Whether you need to recognise the revenue in this accounting period or postpone it later. The moment you recognise an activity as revenue generating to what extent would you realise the revenue.

And this is open a lot of subjectivity but as long as there is some reasonability in the assumption that you are making to record revenue transactions. Then your income statement is correct the second thing is cost of goods sold the cost of goods sold at elaborate. We discussed on how the cost of goods ready for sale after it gets sold finds itself in two places inventories and cost of goods sold and what is the value of the inventory depends on what type of inventory recording method that you have adopted.

It could be LIFO last in first out or a first in first out FIFO or an average inventory costing mechanism or direct inventory identification where inventory is tag. And then the cost of acquisition is recorded and as in which when in inventories consumed. It gets identified and recorded at specific inventory levels so, specific identification an average LIFO, FIFO these are the 4 methods that we use to record inventory and also find the value of the cost of goods sold.

The depreciation also we discussed on how there are 2 methods straight line and sum of years digit two ways by which an asset can be depreciated. So, these are the 3 special cases that we also discuss at length and then we finally we also discussed about cash flow statement which is the third important financial statements.

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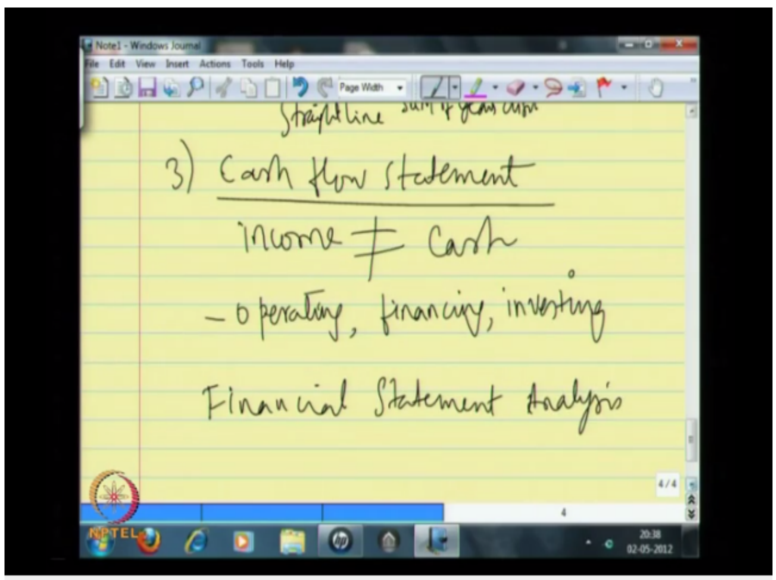

And this where that we appreciated the concept that income is not cash the cash that your balance sheet is not equal to income that you in your income statement. And both are different, because the misconception that people, who have no accounting sense is that cash in income or one in the same. Then you will appreciate when you actually get into these concepts that both are different and that a cash flow statement actually gives you more information on the behaviour of cash between two successive accounting periods.

And you will know how cash got into the firm how cash left the firm and resultant o fall these activities that, I have either consumed or generated cash will actually give you an ending cash.

And that is the, that your balance sheet and these activities we found that or predominantly categorise into 3 types namely you operating activity, financing activity and investing activity. And by enlarge if you are able to categorise all the activities in these heads.

And study how each of the activity have each of the activity has influenced the behaviour of cash and the summation of all the activities that have influence cash between two successive accounting periods. This, what gets recorded as the cash flow statement, and then we also so, how a financial statement can be analysed. And we understood that by actually getting into sum of the ratios that are popularly used which fall broadly under 4 categories.

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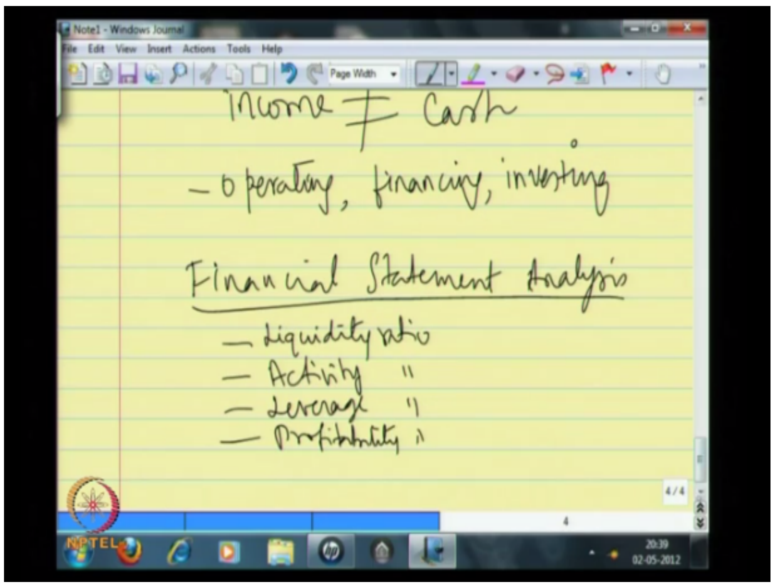

Namely the liquidity ratio, the activity ratio, leverage ratio, profitability ratio so, these 4 ratios that talk about the extent of the liquidity of the firm. The efficiency with assets are being used gets captured in the activity ratio. The various sources of capital and the potential of the firm to service is debts gets captured in the leverage ratio. And the profitability ratio actually is the one that provides explanation for the extent to which the firm is generating net income.

The return on income is expressed in various ratios that come under profitability ratio. And also finally we also start what Dupont ratio is and how that return on equity is split into 3 parts. And each of them important remember we talked about the net income by sales which is the return on investment that is the profitability ratio. And in the asset turnover ratio sales by assets and then assets by equity is the equity multipliers.

So, these are the 3 individual components which put together firms is the Dupont ratio which is your profitability ratio expressed as net income by sales time sales by asset which talks about the activity ratio. How efficiently you have use the assets, assets by equity is more leverage ratio and equity multiplier. And all these 3 put together is your return on equity which is your net income by equity and this is important.

Because a return on equity is another important measure because you would find that many of the entities main objective is to maximise share holder value which is actually maximised. When you are return on equity gets maximised. So, this in an actual is what financial accounting is all about that we have to follow some concepts that actually govern the generally accepted accounting principles.

And these are the principles that are uniformly used, wherever you are except that there might be some minor changes shooting to the local needs. But then if you see an income statement of ford motor company listed in the U.S. And you see that income statement in India you could still make sense from those income statement and balance sheet just as somebody sitting in Europe can make the same sense looking at and income statement of TATA consultancy services are any other Indian company.

And then these accounting principles have to be properly understood and all the transactions that are relevant needs to be indentified measured and communicated by following a set of rules that govern this language of business. And if you are able to do that then you would end up preparing a correct balance sheet, income statement a cash flow statement based on which both internal as well as external users can use this information can analyse how well the entity has performed.

Because you have different ratios that you can calculate from all these statements that you have to prepared so, the use of such financial statements is not only for those inside the organisation. But also for those who are outside namely the shareholders, the bakers, the income tax authorities, the government authorities, the regulators who ever it is they would be able to make the same sense.

Because the financial statements that you have prepared is one and the same who over is the end user is and as long as you have followed some of the basic principles and you have not compromised any of those then you have a correct financial statements in place. So, in essence the previous sessions I have given you inputs on how to record these transactions, and why these concepts are very important and after having understood these concepts.

Then you can take a decision whether these transactions or relevant significance of these transactions. And how it needs to be identified under particular account categories and how such transactions recorded by following the principles of double entry book keeping. And an aggregate of all these transactions will form your balance sheet income statement and cash flow statement. Now this is about financial accounting and I told you that on the other side.

There is also something called the management accounting so, next class I will be giving you some inputs on the fundamentals of management accounting. But we would not be spending a lot of time on management accounting just as we spend a lot of time on financial accounting not that it is not relevant. But then it is not that popular because the user of the information that comes out of management of accounting is more internal as against financial accounting where the used group could be even external stake holders.

But then it is essential from an internal control point of view that we need to understand what management accounting is all about. So, next class I will give you some inputs on the net for management accounting the difference between management accounting a financial accounting which relates to the behaviour of past and how past is understood the cost structure is understood and the impact of changes in the cost structure on the pricing decision or other financial impacts can we best understood.

When we actually know what management accounting is all about so, next class I will give you some inputs on management accounting Thank you.