Business Analysis for Engineers

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Lecture-03
Accounting Principles-1

Hello class, last class we were talking about accounting as a subject of study we define the this is mounting an entered the class with an understanding that the practices that are generally followed by accounting professionals. Actually is based on some principles that are commonly follow and those principles were the generally accepted accounting principles and I said that in this class we would start understanding each one of those principles.

Now accounting principles are built on a foundation of a few basic concepts and these basic concepts are self evident for a practicing account that they actually do not have to worry about this concert because they actually know about that but for non accountants like you, you need to understand what this basic concepts are and why principles of accounting actually rely on these basic concepts.

And I told you that is accounting principles are manmade and anything that is manmade that is not a consensus. So still you have accounting theorists arguing that some of the existing principles and concepts that are actually wrong and they need to be changed, but that argument will continue you never know principles will also change. But let us understand the currently practiced principles of accounting and why that these principles are important.

And as I told us non accountants you should understand the underlying logic behind these accounting principles I am going to explain briefly of these principles and action when applicable try to give you some examples so that you can better understand these accounting principles.

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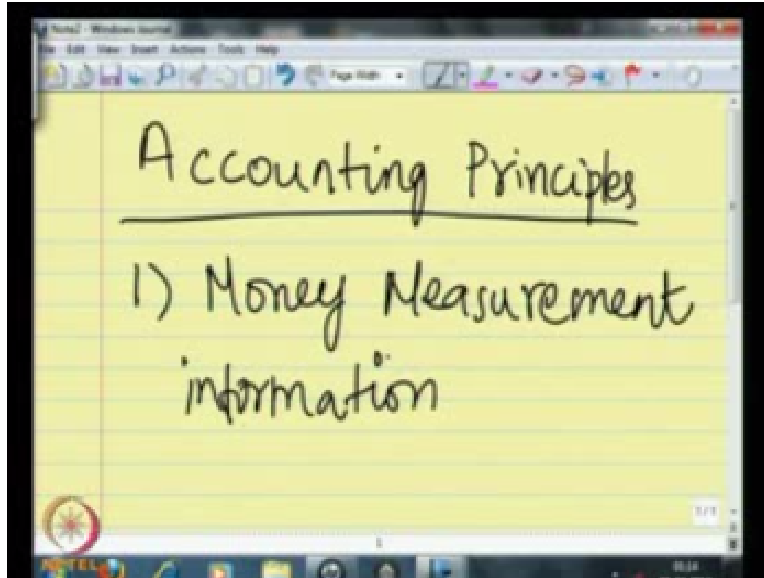

Let us begin with the first principle of money measurement, all of you know that any event that is significant has to be recorded as a transaction because it needs to be reported. So a transaction that needs to be reported can be reported only if it can be expressed in monetary terms. So only if your able to monetize this transaction which you think is significant that it has to be measured and communicated then it is possible.

In the absence of monetary equivalent and in the absence of monetary expression no transaction can be recorded, because I told you the first class that the currency of business is money and unless and otherwise you tell to the world that you have made so much money, you cannot tell that you are successful. So you need to understand the common denominator that links all these transactions is money.

And if and only if all the activities the events are the transactions that happen the business organisations are being able to be expressed in monetary terms, then the transaction is significant other that transaction can be captured as accounting information. So principal number one is money measurement which clearly says only if you are able to capture transactions in monetary terms it becomes relevant in the language of accounting.

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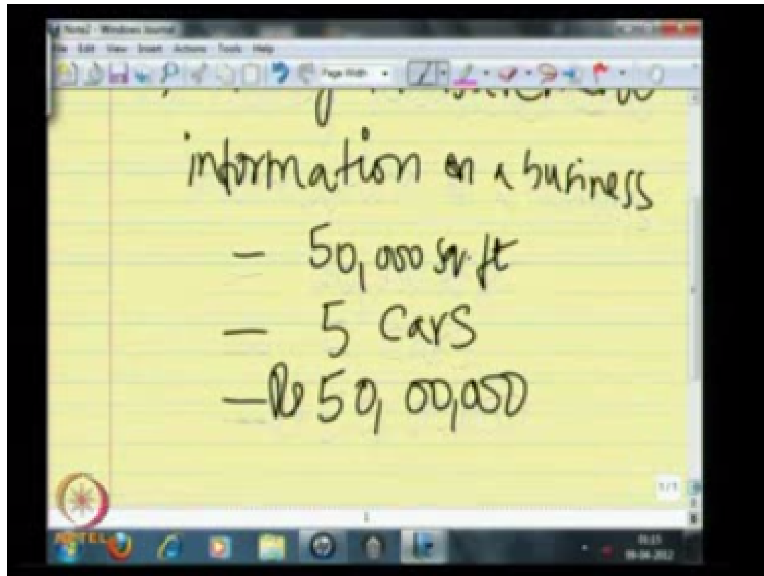

I just give you a small example for you to understand, I told you that accounting is capturing information, so I give you the following information about a business entity so information on a business let's say I run a business in an office which is 50000 square feet and then to run the business I have a fleet of five cars and then in a savings bank I have 5000000 Rupees and then let us say I am in the business of buying and selling goods of trading.

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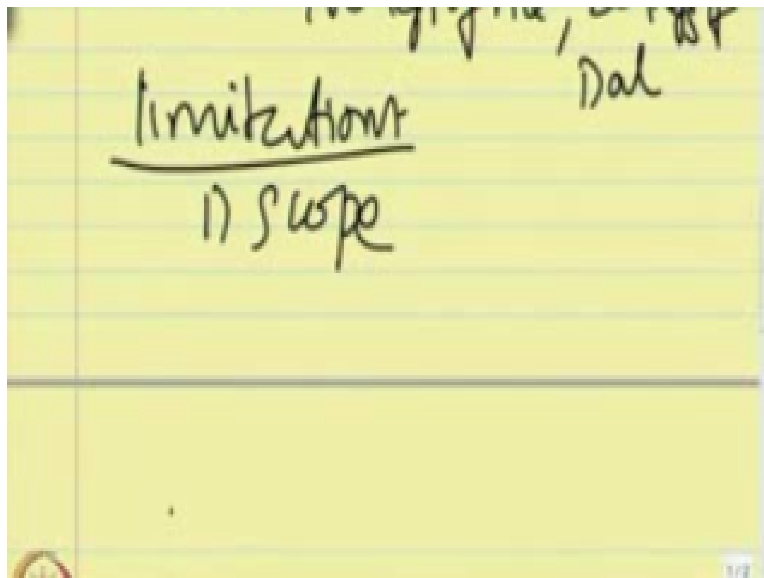

So the current Inventory of the stocks that I have on hand I have round let us say the business is about selling groceries. So I have 100 kg of rice, 20 kg of dal and all of this is quantitative information and all of this to the business is information that needs to be measured because this is identified information. This is information that I have it with me and it is also measured but in different ways.

But it challenges I will have to communicate it in only one particular way. So we have a heterogeneous set of information, but money measurement tells me that there is only one way of expressing this information. So money measurement in a sense is giving a homogeneous identity to this heterogeneous set of quantitative information. You can you can recall this case I know compare apples to apples not apples to oranges.

In accounting you can have apples you can have oranges but as long as you are able to express apples and oranges in monetary terms then you can club both of them together to present an information in monetary terms. Likewise you have 50000 square feet of building you have 5 cars you have cash of 50000 in inventory of this. All of them in different units of expression. So using money measurement how can I record and report this information.

I have to necessarily convert this 50000 square feet of building into let us say I purchase this building for 2 crores that's monitor and if I card that I have was purchased the cost of 1000000 50 lakhs is equivalent to the 5 cards that I have 50000 5000000 rupees in my bank account is by default purse monetary information, 100 kg of rice and 20 kg of dal multiply by the current price levels is expressing 100 kg of rice and 20 kg of dal in monetary terms.

So you can understand that money measurement essentially means that you can have a heterogeneous set of information quantitative in nature and essential to be measured and communicated it is possible if all of these heterogeneous information is expressed in monetary terms that money measurement. But there might be some limitations to it as per see accounting the financial statements that come out of accounting does not talk about the entire gamut of activities happening in an organisation.

It does not report the health of the CEO of a firm, it cannot report that the sales manager at the production manager or not in talking terms you cannot report that a competitive product is price lower that there is going to be a strike in your organisation, all these type of information cannot be reported in the financial statement. Because it is bound by the scope of the accounting report which necessitates that all of those transactions that can be monetized of that can be expressed in monetary terms are the ones that are relevant for the purpose of accounting.

That is one broad limitation. The second limitation when you actually use money measurement is that when you record let us say your you purchased and I said sometime back. Now that the money that you use to purchase is recorded at its value during the time of acquisition of that particular asset and its a 10 years ago after you purchase that that as it is in your balance sheet and you report that as well money measurement does not capture the purchasing power of money itself.

Then limitation is the first one I said was the scope the second one is phase 2 capture changes in purchasing power of money itself and this is interlinked with the cost concept as well we will talk about it later. Let us say you purchase the machine in this year 1988 or 200000 and then you purchase land in 1980 let us say for the same 200000 and in 1988 balance sheet do you report the cost of acquisition of the machine at 200,000.

And also report the cost of acquisition of the land that you actually made in 1980 the same 200,000 though the value of 200000 between these two periods have changed. So 200000 in 1980 does not have the same value in 1988. I hope you are able to appreciate this. We are going to talk about this also in detail later. I will give classic example suppose you have a house in T Nagar that you purchased it for 50 lakhs 20 years back.

Today the value of that house is let us say 5 crores, see the house is remained the house is not changed it is actually the value of the money that is actually changed which means today with the same 50 lakhs you cannot buy that house. So the 50 lakhs that you spent 20 years back to buy a house in T Nagar cannot buy the same house in the same place today counting your money measurement does not capture this change in purchasing power of money.

But only records that 3 cross was the amount that you spend in buying same an identical asset in T Nagar today. So the second limitation hand is that you fail to capture the purchasing power of money. So let us get back to the concept, you should understand the concept of money measurement is that all transactions that need to be recorded has to be expressed in monetary terms only then heterogeneous transaction.

Transaction can be of different types only then you will be able to have a uniform way of expressing this heterogeneous transactions because you are capturing them in monetary tub, that is concept number 1.

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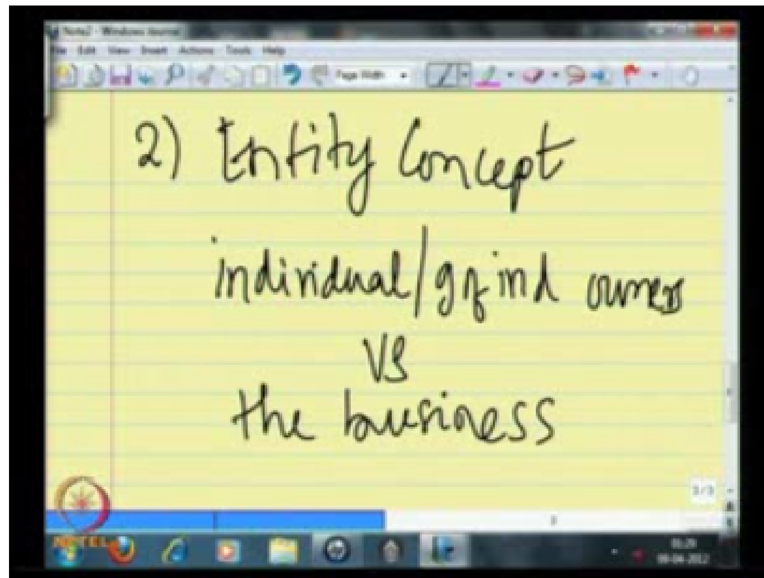

Concept number 2 or principal number 2 the underlying concept is entity concept. Now entity concept you will have to understand it from a different level, people who can appreciate philosopher can also appreciate this concept better, the question of I mean individual owner of a business versus the business itself. You see a lot of events that happen in a business that affects the business.

And there will also be a lot of events that can affect the owners of the business, but accounting the entity concept of accounting ensure that there is a clear distinction between the entity which is the business and the owners of the entity and let macro environment give you a very simple example for you to understand. Let us say you started a canteen you put your money and you started a canteen on your home.

And then is good saves you get money you put it in the cash register and one fine day your son come to the canteen and you want to give me getting an ice cream, so you just take 20 rupees from the cash register by an ice cream and when then your account and concern says sir today you put 20 rupees for the cash register, how am I going to record this in the books of the business.

You cannot tell him that this is my business I put money in this canteen, it is not necessary that you have to record, it is my money I just whether it is registered or whether it is with me and that I spent it makes no difference it makes a difference because the entity concept very

clearly says that the business is different from the owner himself or herself. So the question is how will you record this transaction of taking 20 rupees from the cash register.

So if I take 20 rupees from the cash register that I have to say that a business has earned 20 rupees to me I am the owner and that I have to give back 20 rupees later or from my owner's equity out from the initial money that I deposited 5000 rupees in this business I like to reduce 20 rupees because now my the capital that I put into the business 18000 rupees. So either of these ways you can record this transaction.

But you cannot discuss this transaction saying that I am the owner I took the money for the business and hence this transaction is not be reported that is the principle that you have to understand. This is entity concept and you can complicate this further aspect let s say you are in a business and the ground floor office in the first floor where you are staying with the property tax, the electricity expense.

The other shared expenses you are in curing, now to what extent should it be too should be charged to the business and to that extent it should be start the owners of the business who are living in the first floor. There may be some basis on which you have to do this because you have to necessarily separate the business from the owner and if you are doing it based on some reasonable basis.

Then yes it is an accepted by, if you are doing it arbitrary then it becomes question about there are various this is a very simple example but at a very big level is a arbitrary decision making all the ones that have resulted in big scams. Where you know the owner is not able to actually disassociate himself from the business individual decisions and merge with his own decisions are merged with business decisions as a result of which to see a lot of malpractices in accounting.

So you have to understand that an entity is an organisation where a lot of activities happen and some may or may not affect the owners of the organisation. And if the organisation you have necessarily capture the information in proper format. And by entity I mean anything I told you before that it can be single proprietorship firm, it could be an incorporated firm run and owned by shareholders, it could be not for profit also, it could be universities, trust,

societies, temples, churches, anything and all of these entities will definitely have lot of activities.

And when you are recording these activities that also affect the owners of these entities you will have to necessarily make a clear distinction between the owner and the entity that the principle of entity concept. That clearly says that the individual or group of individuals who are the owners versus the business, you need to have a very clear distinction between these two.

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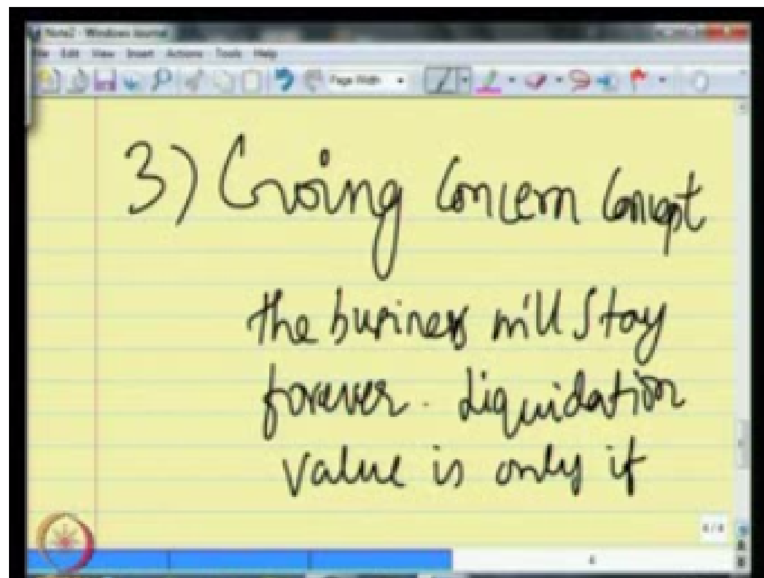

The third concept is going concern concept, going concern concept simple and straightforward for understand. The concept is unless there is evidence to the contrary accounting always assume that an entity or a firm is a going concern, what is this mean, let us say for example you are recording transactions and your recording values of some of the assets that you have.

Let us say you are running a business and let us say you are in the business of selling sportswear. So you make T shirts, you make you know a soccer ball, then you make cricket bats, or not when you have a lot of items to sell, so suppose I want to record the value of the items that you have on hand let us say we are going to close this financial year. Now you might have in your inventory.

You know a bat cricket bat where you have just ahh worked with the wood and it is not fully complete and you know pretty sure that you cannot sell this just like that. So you are not

going to value this wood piece of wood at its immediate purchase value, you pretty well know that this needs to undergo a lot of manufacturing processes and one fine day to be sold in a good finished form and then the companies make money.

Now when will that one fine day come, that one fine day will never come if you are working under the impression that tomorrow I am going to close business I have got a liquid, but that is not the way in which we are conducting business. So now you will understand that you record the value of an asset at various such intermediaries stages assuming that this business is going to exist for particular.

That is a it is a going concern, but if you have enough good reasons to believe yes I want to close business then you have a case about you very clearly know that tomorrow the business is not going to exist then you are going to record the value of the assets as is where is basis the potential that it can be sold what about for whatever value that is the basis on which you are going to add economic value to this assets.

So unless you do not have enough evidence unless there is a belief that you are going to close you never record value of an asset at liquidation value it is always unaccepted practice and always a practice that is followed where assets value are recorded under the assumption that the business is a going concern and will exist for a perpetual period of time. Going concern concept as it means that the business will stay forever.

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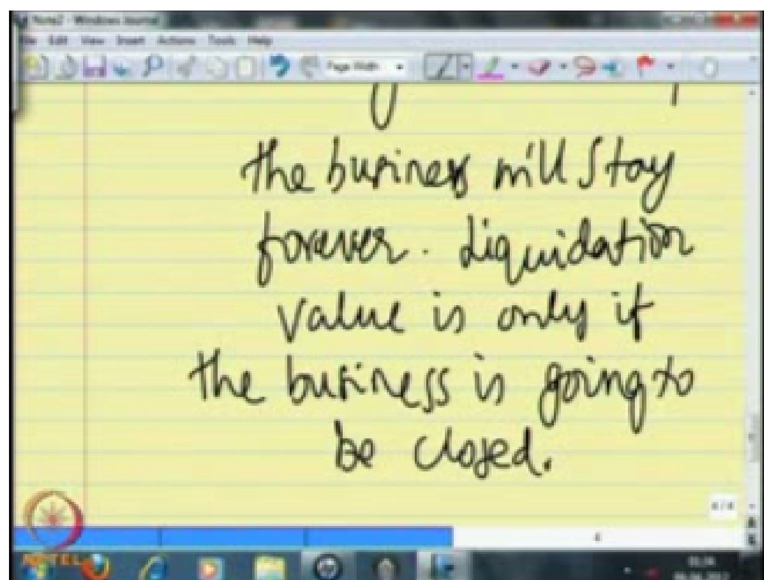

Liquidation value is only if the business is going to be closed. So if you feel you are going to close then you take liquidation value otherwise you are so that the business is a going concern.

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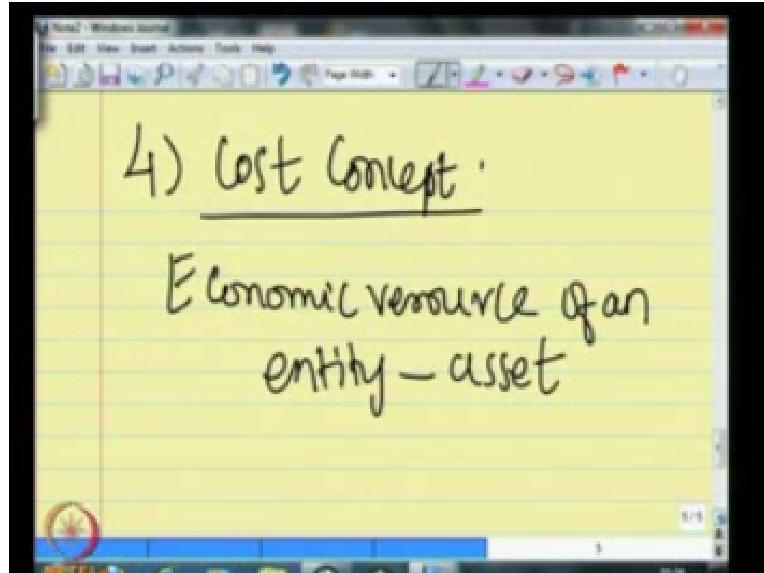

The fourth concept is cost concept, this is an interesting concept, what do you mean by asset of a firm or an entity, the economic resource of an entity is it as a asset, economic resources of an entity is it asset could be land, building, machine equipment, inventory whatever they are, there is some economic value, but the cost concept on the basis that you record.

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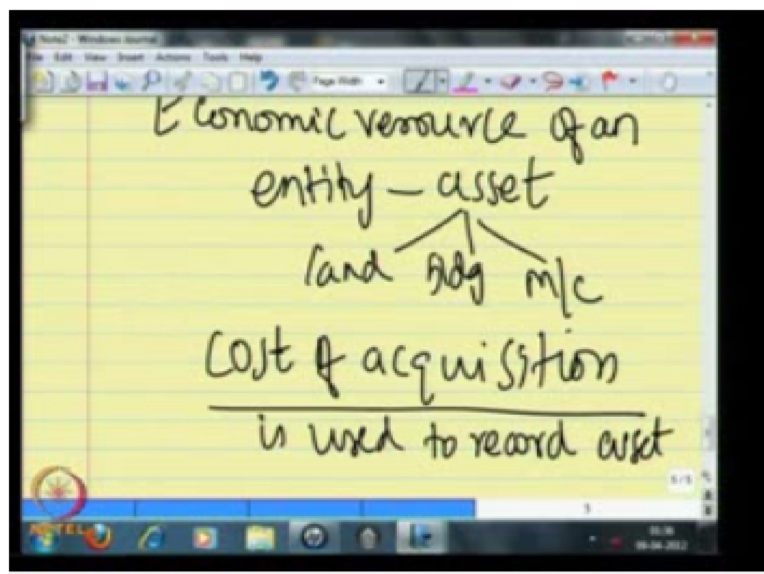

Let us say you purchase an asset land building machine that you have purchased it is critical information because you purchase it for a certain value and it has to be reported. So an assets which is purchased has to be reported recorded at the cost of its acquisition.

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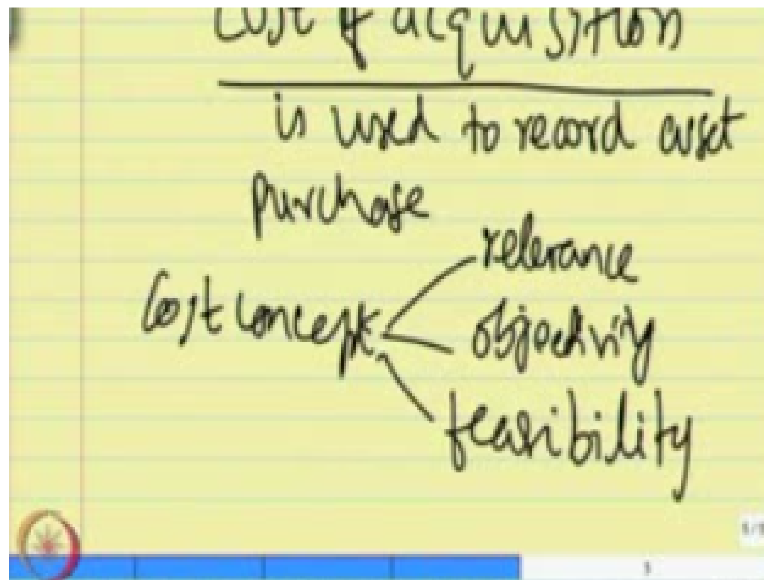

This is very important, the reason that this is important is because the value of the asset may change over a period of time you bought land for 1000000 lakh 10 years back and today your balance sheet would say land value 10 lakh, but the market value of the land could be 1 crore or 2 crore rupees, that is a different issue. But we record asset transactions always has to be at the cost of acquisition.

The marker value can be different and that is why if you have the question I suppose I buy an equipment for 500000 rupees 2 years later you will ask me the question that equipment definitely cannot be valued more than 5 like lakh I can understand that market value for land will increase but market value for an equipment will not increase, then there is another call depreciation where the cost of using the equipment over its lifetime will be removed through the period of its life.

And every year we remove certain cost of acquisition of that particular equipment by way of gift that is a different concept I were talking about that later. But you should understand that the cost concept rest on the fundamental assumption that when you purchase an economic resources and I said you have to record that purchase and report that purchase at the cost of acquisition.

Now this cost concept in my opinion is an excellent illustration to get back to our three criteria that we were talking about, cost concept verses relevance verses subjectivity and feasibility. I said I am not concerned about the market value cost concept tells me that it is the

cost of acquisition that is more important. But relevant the principle of relevance the criteria of relevance is that you know investors or others who use this information are more interested in knowing what is the actual value that is worth today.

That historical cost because the accounting principle fundamental criteria is it should be relevant, now as investor, or creditor or somebody is using this information today I will be interested in knowing what is the current work of the assets not the historical cost. So question of relevance becomes very critical here, but how do I know the real current worth of the asset today.

Can it be objectively measured suppose we share price shares are being purchased and sold why is that I buy a share I think that the value of the share will increase and hence I can sell it at that point of time in make money. Now why is the other person selling that share he thinks that the value of the share has hit the maximum it's better that I sell it same share objective I think other things this is the maximum bought and hence share is sold.

So whose right whose current work is write objective very difficult or let us say the management or the board of a firm is the one that is going to measure the current work, can we assume is it safe to assume that a management own estimate is objective, that is free from any buyers definitely not. So will you accept that as the real current work on the principles of objectivity definitely not.

So let us assume that you know it is possible, then accountant will sit and all assets today's value this value of gas at today and 2 days later this is the value of the same asset, that I can understand if it is only one asset it is possible to do this activity, but we are talking about a firm which has so many assets, so many transaction and is definitely not feasible to record the market value the ups and downs of the assets assuming at the first place that is objectively measurable.

So the absence of a better alternative cost concept clear releases wherever you go whether it is relevance objectivity your feasibility there is definitely some limitation and because of that and because of that because there is no better alternative to record the cost of acquisition and not be guided by the market value of the asset that you purchase that in a sense is the cost concept.

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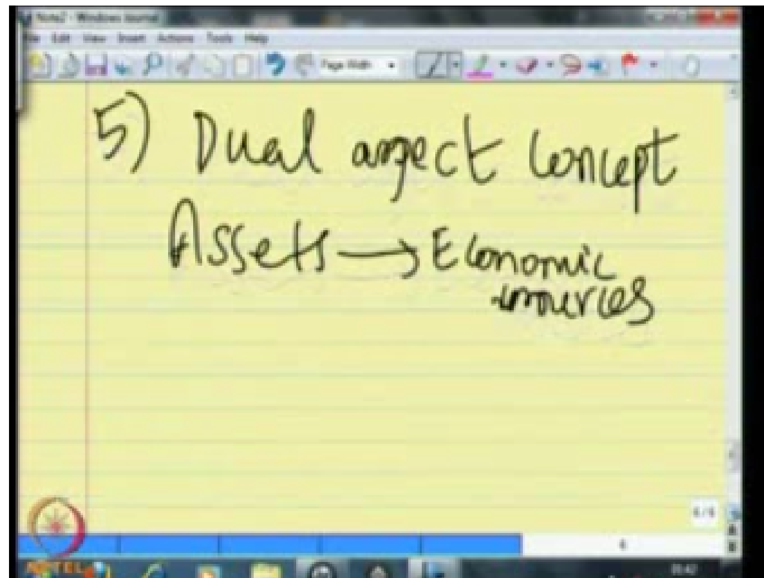

The fifth the concept is the dual aspect concept I told you before that assets are the economic resources of an entity, economic resources of an entity. And how are we getting these assets because your owner of the business put his money or the banks lend money and hence we purchase these assets. So every economic resource that is being generated to every subset there is a claim against these assets.

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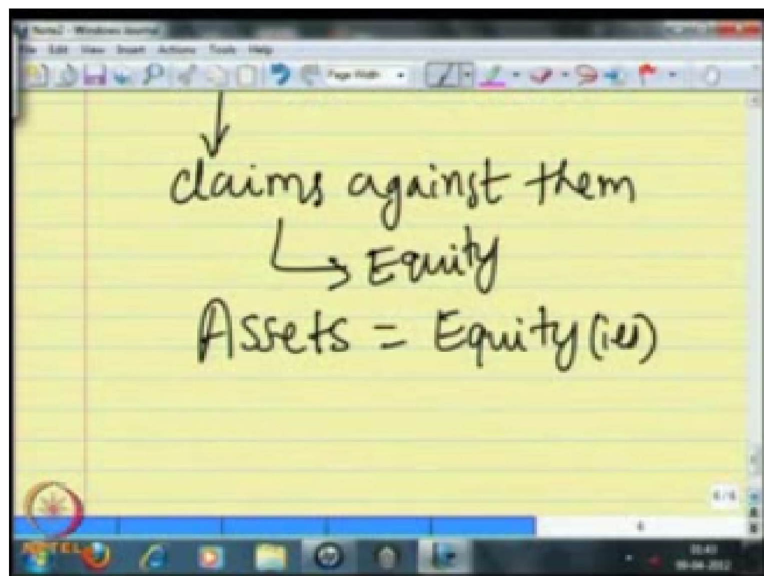

So the assets have a claim against them that your equity. So every effort has a claim against it which makes your assets will be equal to your equity decrease or increase. I told you that equity could be owner or somebody else as money as well. So the could be from liabilities which is creditors of banks or name of the owner itself, owners equity.

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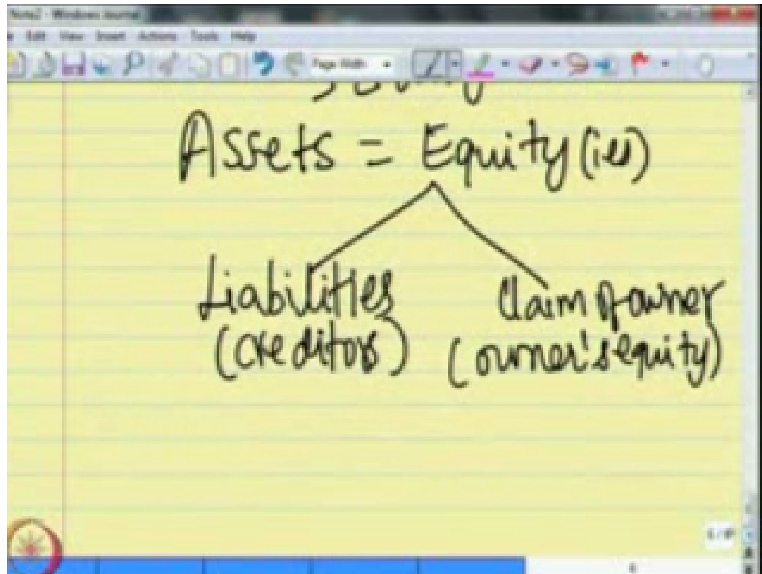

As a result of assets the equation just gets little modify to extend that assets=liabilities+owners equity. So what is the principle of dual concept Iam going to write rewrite this equation.

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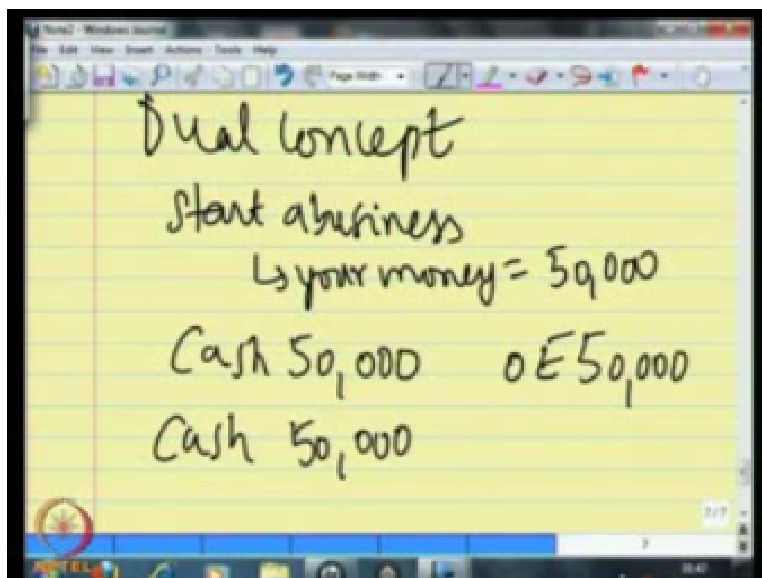

Dual concept says when you record a transaction it necessarily has to have a dual impact and also in such a way that assets equal to liability is precious equity fundamental accounting equation does not get an altered to talk about that later why it is not getting, on the principle of duality is that definitely when you are recording and accounting transaction in a recording a transaction in an accounting system the transaction will have a dual impact in the accounting system.

Let us say for example I give an example so that you will understand this better if you start a business let us say you put your money ok you start a business and how did you start your business you put your money 50000 this is the transaction, what is the dual impact, dual impact of this one that you have invested 50000 rupees in the business and business capital and the business has received 50000 receipt as cash for the business.

So you have cash 50000 and this is for the business and this is an asset to the business and the dual impact where will this 50000 where will this 50000 sit as the a dual entry, it is my money the owner's equity I gave that 50000 that's my capital in the business, that is another 50000 I give, just make the understanding simple let us say a bank approaches and says I am ready to also give you another 50000.

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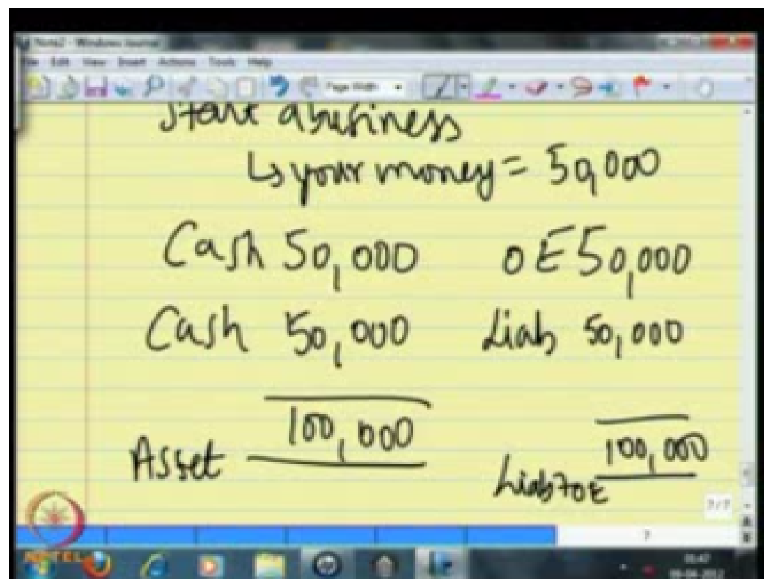

So what happens to the cash to the company gets increased by 50000, but it is not our money in the business you have not given that 50000 it is a bank that is given that 50000. That is also an entry which has a dual impact, so what is the total 100000, cash is the assets of the business, balance. So the principle of dual aspect, the concept of dual aspect is that such transactions on any transaction for that matter that is going to be captured into the accounting system will necessarily affect the assets=liabilities+owners equity.

That I will impact and also the way in which are going to record this transaction will ensure that the assets=liabilities+owners equity equation is not compromised. Weather both impact will be on the assets side one impact on the assets side on the other impact on the liabilities side or both the impact of the liability side that is a different issue which will be talking about

when we actually spending a lot of time on this double entry bookkeeping where I will tell you.

How this dual impact is recorded by way of entries debit credit and all that then you will understand actually this concept more forcefully, from the time being we should understand that this dual aspect is a concept which mandates that any transaction that your are capturing the accounting systems will necessarily will have a dual impact assets=liabilities+owner's equity can impact any of this.

This is the fifth accounting principle. Now these 5 accounting principles I can also make an attempt to give you a quick overview of what a balance sheet is because I feel that these principles are balance sheet related accounting principles, the remaining 6 will be principles related to income statement and then when you look at the overall picture. You will find how these 11 principles are intraoral as a result of which how your income statement and balance sheet interwoven.

And you will appreciate the balance sheet is balanced the income statement is linked with your balance sheet and why did all of this happen because all of your 11 principles tell you that this is the way in which you have to record this transaction to report them, but I do not want to start with balance sheet leaving this principles high principles and then we visit them later what I will do with the next class I will talk to you about the remaining 6 principles. Then give you a brief overview of what a balance sheet and income statement is all about.

And if time permits we will get into another the most important concept of the double entry bookkeeping that will teach you on the ways by which you record this transaction to debit and credit. But before I end the class the fundamental equation that governs all your system of accounting is this.

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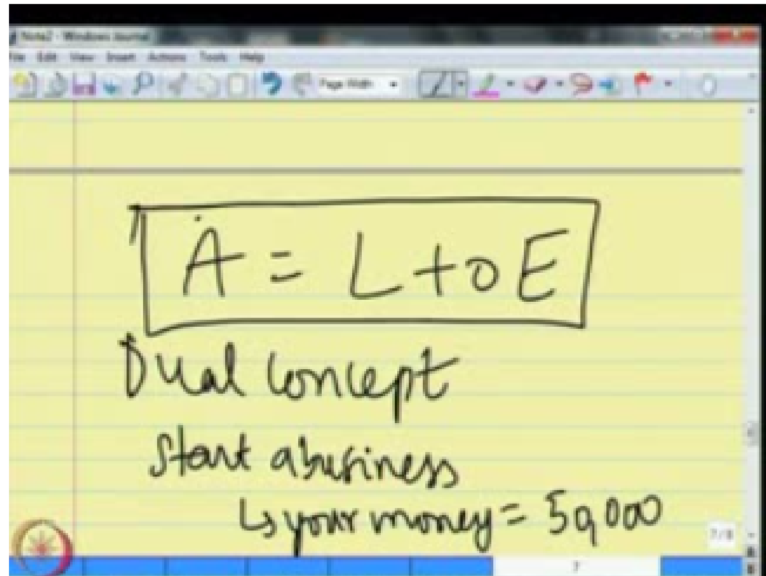

You must necessarily have this in mind this must be integrated embedded and wake you up and ask you what is a fundamental equation you must spontaneously tell me assets=liabilities+owner's equity. This equation is not matching, there is nothing wrong what is happening in the business there is something wrong the way in which you have captured the transaction and recorded a reported depth to touch the quick assets test you to realise that you have made a mistake.

And this you can do at every stage because dual impact is at every time you make a transaction it affects and then it affects in such a way that your assets=liabilities+owner's equity. So every transaction you can make mistake, this necessarily will hold to this is the fundamental equation that will form the basis on which we will be recording all these transactions.

And then the process creates balance sheet and income statement and cash flow statement. So have this in your mind. Next time when we visit next class I will give you a quick overview of the remaining 6 principles and then make the class understand what a balance sheet is income statement is what are all the parts of a balance sheet what are all the parts of an income statement then time permits to start the double entry bookkeeping, thank you very much.