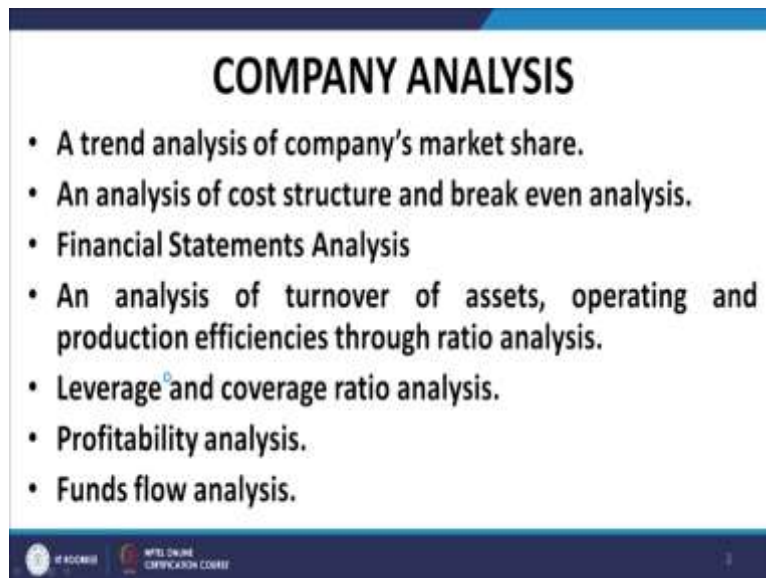


**Security Analysis & Portfolio Management**  
**Professor J.P. Singh**  
**Department of Management Studies**  
**Indian Institute of Technology, Roorkee**  
**Lecture 34**  
**Balance Sheet Analysis - I**

So, welcome back. So, before the break I was talking about the economy analysis and the industry analysis in the context of EIC analysis for the ascertainment of inputs that go into any valuation model for an enterprise, for a company's equity rather. So, now we move to the company analysis segment.

Again, I give you a sample list of what could be a part of company analysis, but I strongly emphasize that this list is not exhaustive and this list would not only be incorporate more items, but it would also need to be modified in line with the requirements of a particular valuation case.


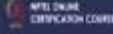
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**COMPANY ANALYSIS**

- A trend analysis of company's market share.
- An analysis of cost structure and break even analysis.
- Financial Statements Analysis
- An analysis of turnover of assets, operating and production efficiencies through ratio analysis.
- Leverage and coverage ratio analysis.
- Profitability analysis.
- Funds flow analysis.

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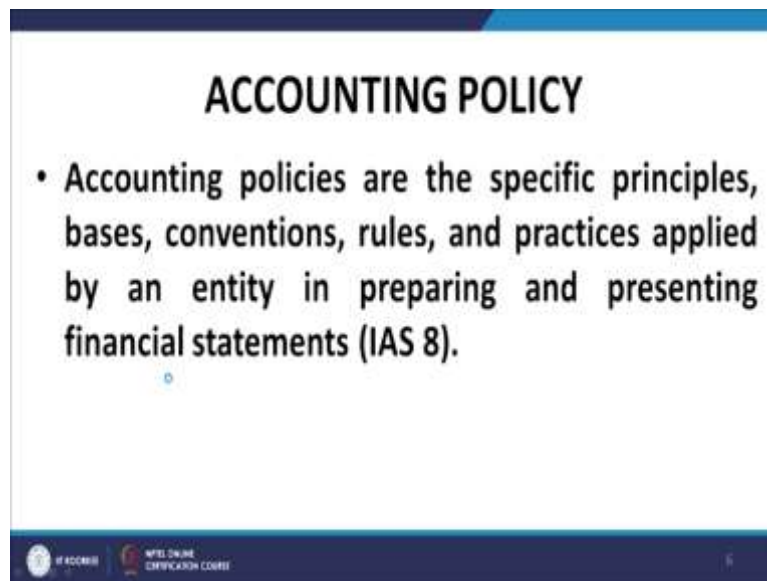
- A trend analysis of book value per share.
  - An analysis of growth in dividend per share and retention policy.
  - Estimation of dividend yield.
  - Estimation of price-to-earnings multiple.
  - An assessment of the quality of assets.
  - An assessment of the quality of management.
-  

A trend analysis of the company's market share, an analysis of the cost structure and breakeven analysis, financial statement analysis. This is perhaps the most important analysis of turnover of assets operating and production efficiencies through appropriate ratios. Leverage, financing pattern analysis through leverage and coverage ratios. Profitability analysis, funds flow analysis or maybe cash flow analysis or maybe both as well. A trend analysis of book value per share an analysis of growth in dividend per share and retention policy.

Estimation of dividend yield, estimation of the price to earnings ratio PE ratio, an assessment of the quality of assets, assessment of the quality of management. So, this was a illustrative list of various issues that an analyst may need to go through may need to study with reference to a company.

But again, I reiterate, I emphasize, that the list is purely illustrative. It is neither exhaustive nor all pervasive, and the analyst will need to select the important attributes that need to be analyzed with reference to any singular case that is assigned to him.

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So, now, we start with the accounting policy analysis. Let us start with the accounting and financial analysis of the company, which forms the backbone of fundamental analysis, and we start with the accounting policy analysis. So, what is an accounting policy? Accounting policies are the specific principles, bases, conventions, the rules and practices that are applied by an entity in preparing and presenting financial statements. This is the definition of an accounting policy as per IAS 8 International Accounting Standard Number 8.

So, why do we need to do accounting policy analysis? Because, although, regulations, standards, the law itself or the standards which are framed under the legislation. For example, in India, we have the Companies Act 2013, we have the accounting standards issued by the Ministry of Corporate Affairs under the provisions of the Companies Act. So, these regulations these standards, maybe we have the International Financial Reporting Standards for which are adopted by many European countries.

And in fact, many other countries as well across the world. In USA, we have the Financial Accounting Standards Board, has promulgated certain standards for companies that are in the United States that are operating in the United States. So, every country has a certain accounting standards, which limit the discretion of the management, and so far as financial reporting is concerned.

However, this control is not all pervasive, and it indeed it cannot be all pervasive. In the sense that you cannot have accounting standards or laws governing each and every issue relating to the accounting of each and every company that is practically not possible. So, accounting

standards and laws can only provide you broad instructions, broad guidelines on how the accounts are to be presented or the accounts are to be prepared and presented.

However, there does exist certain leeway a certain freedom with the management of the company in so far as the accounting treatment of several issues is concerned. And here arises the need for having an accounting policy. Accounting policy tells the user of the accounting statement how particular items in the accounts have been dealt with.

For example, if we talk of depreciation, depreciation can be charged in a number of ways. We have the accelerated depreciation the WDV or we have the straight-line depreciation that is the constant depreciation, these are the two most commonly used. Although, there is a heap of other approaches or methods for doing depreciation, but these are the two common variants.

Now, which approach the company is following would be a part of the accounting policy in respect of depreciation. And indeed, the law, the company law, as well as, the accounting standards do allow companies to choose the method of depreciation which they feel appropriate for various assets or asset classes.

So, managers have certain leeway in choosing various accounting policies. And therefore, analysts are required to make adjustment to reported results in order to make meaningful comparison. So, if you are comparing two companies, one with a straight-line depreciation policy and the other with WDV depreciation policy, it may give you misleading information unless you account for the differences in the method of charging depreciation.

Illustrative list of accounting policies, which need to be studied by the analyst, basis a valuation of various assets and liabilities. This is very important in the present context where fair value accounting is now gradually becoming the prominent approach to the valuation of assets. I will come back to this issue again.

Depreciation of property plant and equipment, I gave you the example just now. Amortization and impairment of intangibles, there can be different policies with respect to the determination of amortization periods as well as the approach to the management of impairment losses in intangibles or tangible assets.

Capitalization and expenses of research and development costs. This is a very important issue, very fundamental issue. Because in the modern competitive world, most of the major companies have a significant budget outlay for research and development. And as a result,

how the research and development expenditure is treated in the accounts, how it is represented on the face of the balance sheet or otherwise, it becomes an important factor while analyzing the financials of a company.

Classification of leases and lease accounting. To identify a particular lease as an operating lease or a financial lease is another intricate issue. When again, the company needs to follow a policy with respect to that consistent policy with respect to management of or respect to reporting of similar leases. Accounting for preliminary and pre-operative expenses.

How the company is amortizing the preliminary expenses, expenses that are incurred in the context of formation of the company that is preliminary expenses and pre-operative expenses, which are expenses that are incurred in relation to a project in the pre-commencement phase of the project up to the period up to which that project does not enter into commercial production.

So, expenses like salaries and wages for the pre-commencement period, power expenses, trial run expenses, raw material losses during trial runs, all these expenses will be part of pre-operative expenses, and how they are treated in accounts as an important issue. Usually, they need to be capitalized up to the point the company starts commercial production.

And once the company starts commercial production, then expenses incurred thereafter are to be treated as revenue or capital as per standard test. Similarly, is the treatment of interest during construction period, that is also to be as per the accounting standards that also needs to be capitalized.

Accounting for foreign currency translations. If a company has subsidiaries operating on foreign soil, how those accounts of those foreign subsidiaries are to be consolidated with those of the holding company that is another issue where the company's policies will involve a certain amount of discretion. Therefore, taxation accounting, I shall take it upon detail.

Accounting for derivatives is another issue, hedge accounting is another issue. Whether the company is following the policy of hedge accounting, following the procedure of hedge accounting or it is not. That is an that is again a choice that is to be made by the company. If it is using derivatives for hedging its exposures.

Consistency in accounting policy. Now, this is very important. In order that a company's financial be comparable over a sustained period of time it is absolutely essential that the

company follows a consistent accounting policy or unless the violation of consistency becomes absolutely necessary.

So, before I come back to the violation part, the change in accounting policy part, let us see the provisions of IAS 8. An entity shall select and apply its accounting policies consistently. So, this is such an important issue that the accounting standards have found it be fitting to incorporate it as a part of the provisions of the accounting standards. Consistency is a fundamental issue. Whenever we do financial analysis companies have to necessarily be consistent in the application of accounting policies to make the information conveyed by the financials useful and comparable.

So, an entity shall select and apply accounting policies consistently for similar transactions, other events and conditions. Unless a standard or interpretation specifically requires or permits, categorization of items for which different policies may be appropriate. If a standard or an interpretation requires or permits such categorization appropriate accounting policy shall be selected and applied consistently to each category.

So, for example, let us take an example, let us take the case of the depreciation method. Now, you need to follow the depreciation method consistently across the life of a particular asset or a particular group of assets. And indeed, for a similar, for a group of asset comprising of similar, assets of similar nature, for example, items of machinery you need to follow this same approach to depreciation.

However, if the law does permit or the law requires. That for example, in that set of machinery or plant and machinery, if you have certain assets on which the law requires or allows you to charge depreciation on a different rate. For example, ships.

Ships are allowed at different rate of depreciation, then you could categorize the ships as a separate asset category and then apply a different depreciation policy with respect to ships. In the absence of such singularities the law requires that an asset class should be dealt with similarly, in so far as the impact of issues relating to that asset class is concerned.

The change in accounting policy. So, you need to follow an accounting policy consistently over a sustained period of time over the relevant period. Unless and until what happens, let us see. An entity is permitted to change an accounting policy, only if, now only if means, only under the following two circumstances. What are the two circumstances? The changes

required by a standard or an interpretation of the standard. So, if there is an explicit requirement, that the accounting policy has changed.

For example, if the law now changes, if the standard changes and now dictates that taxable depreciation shall be used for the purpose of accounting as well then that is a change that is mandatory because it is required by an accounting standards. We have no choice in that matter, so you have to follow and you have to revise your depreciation for example, from the straight-line method to tax depreciation.

So that is one situation or otherwise the second situation where you can change an accounting policy is, when the change in accounting policy results in the financial statements providing reliable and more relevant information about the entity's financial position or performance or cash flows.

So, if the management of the company now here the discretion of the management comes into play. If the management of the company feels and is able to justify that the change in the accounting policy is for the betterment of the users of the financial statements in the sense that it would convey more meaningful information about the financial position, the performance or cash flows of the company then it is allowed under that situation. The management is allowed to change an accounting policy.

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**DISCLOSURE RELATING TO CHANGES  
IN ACCOUNTING POLICY**

- The nature of the change in accounting policy.
- The reasons why applying the new accounting policy provides reliable and more relevant information.

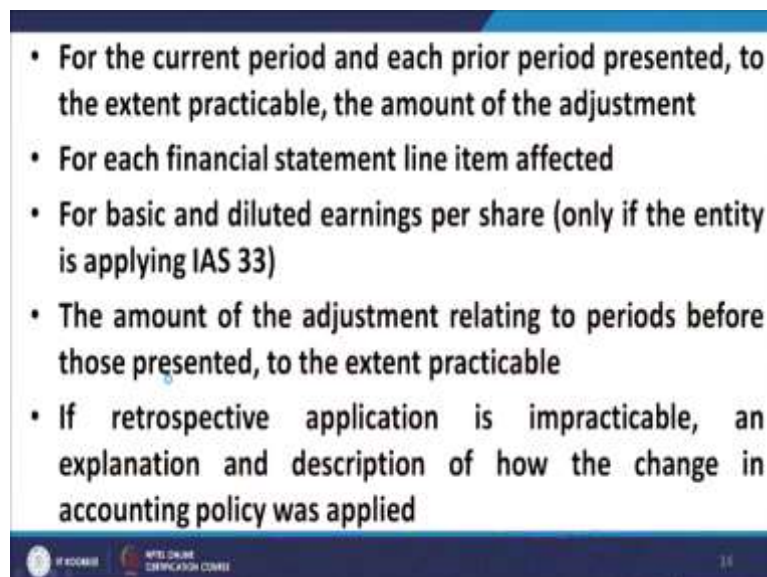
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However, whenever there is a change in accounting policy, certain disclosures need to be made. What are those disclosures? Number 1, the nature of the change in accounting policy. The reasons, number two, the reasons, why applying the new account policy provides reliable

and more relevant information. So, if the change is being done at the choice of the management under the point number 2, that I just elucidated, then the reasons or the manner in which the betterment of the conveyance of information or the superiority of information conveyed to the end users of the financial statement needs to be communicated or needs to be disclosed by the company at an appropriate place in the accounts. Usually, the notes to the accounts will come back to it.

Then there are further quantitative disclosures as well. For the current period and each period presented in the financial statement. Normally financial statements contain information for the current period. For example, if it is financial statement on 31st March 2021, it would contain the financials for 31st March 2021, and the financials for 31st March 2020.

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- For the current period and each prior period presented, to the extent practicable, the amount of the adjustment
  - For each financial statement line item affected
  - For basic and diluted earnings per share (only if the entity is applying IAS 33)
  - The amount of the adjustment relating to periods before those presented, to the extent practicable
  - If retrospective application is impracticable, an explanation and description of how the change in accounting policy was applied

So, for the current period and each prior period presented to the extent practicable, the amount of the adjustment for each financial statement line item affected. So, if there is a change in accounting policy, this additional quantitative information needs to be given in respect of the current period that is the period to which the financial statements relate and the period, which is also disclosed in the financial statements, usually, the immediately preceding period.

So, for each financial statement, the line item affected. For basic and diluted earnings per share, so that is another important change. Whatever is the impact of the change in accounting policy on the EPS needs to be disclosed both the basic and diluted EPS. The amount of the adjustment relating to periods before those presented, for the periods, which



are not part of the financial statements the amount of the adjustment should be disclosed to the extent practicable.

And if retrospective application is impracticable the explanation and description of how the change in accounting policy was applied. So, this is, so again, this shows these provisions in relation to disclosure of accounting policies shows the importance, the vitality that is inherent in the defining of accounting policies with respect to which accounts are prepared, financial statements are prepared.

And, also, the view of the accounting standards that this or about the importance of any change in accounting policy. Any change in accounting policy is not taken lightly by the accounting standards makers. Firstly, the circumstances under which the accounting policy change can be done is explicitly defined.

Either it is mandated by the laws or the standards or it is allowed under the discretion of the manual provided adequate justification exists for the better. Justification, exists for the change on the premise of better conveyance of information, higher quality of information by the financial statement. And even then, even if so, the impact of the change in accounting policy has to be explicitly stated, and accurately stated in a lot of detail as well.

Important accounting policies and other issues. This is where I shall explain in the current paradigm of accounting, as well as, what is the salient features of contemporary accounting for the benefit of a prospective analysts.

The first is the general recognition criteria. An asset or liability should be recognized in accounts only if, number 1, it is probable that any future benefit associated with this item will flow to or from the entity. There are two things which need explanation here, the most important is future economic benefit.

So, an item can be classified as an asset or liability by an entity, and incorporated and brought into the accounts only if that item entitles the entity to a future economic benefit. Future economic benefit is fundamental. An item would be classified as an asset, only if, there exists a certain probability. I will come back to that point as well.

But before that, there exists a certain probability future economic benefit. That means, there should, that means, an item will not be qualified to be incorporated in accounts as an asset, if there is no prospect of deriving any future benefit by the entity from that particular item. So, future economic benefit is most important.

The accounts must be forward-looking. The accounts must relate to the future. If some item is likely to give you some future benefit, then you take it into account. But if the item is not likely to give you any future benefit, then you are not entitled to carry forward that as an asset, carry forward that balance as an asset.

The second thing is it is probable. Probable word is not defined anywhere in the accounting standards. So, but nevertheless, we can impute some kind of a significant likelihood of future economic benefit when we are talking about recognition of an item as an asset. Significant likelihood is again a very subjective term, but usually, usually, not necessarily, but usually it is interpreted as the probability or the likelihood of the future economic benefit exceeding the likelihood of not occurrence of that future economic benefit.

See, the point is, why is the necessity of this probable word? Why is the need to incorporate the presence, this particular word in this particular statement? The need is because we are talking about the future economic benefit. Now, there is absolutely, there cannot be absolute certainty, when we talk about anything into the future.

So, that being the case, it is necessary that we incorporate the word probable. Probable is used here in the subjective sense rather than the objective sense. And, that means, that there should be a significant likelihood, significant again is a very subjective word, but there should be a greater likelihood of the occurrence of the event rather than the non-occurrence of the event. You may take this as a possible guidance rule. But, again, it would be dependent on the interpretation and the singularities of each case.

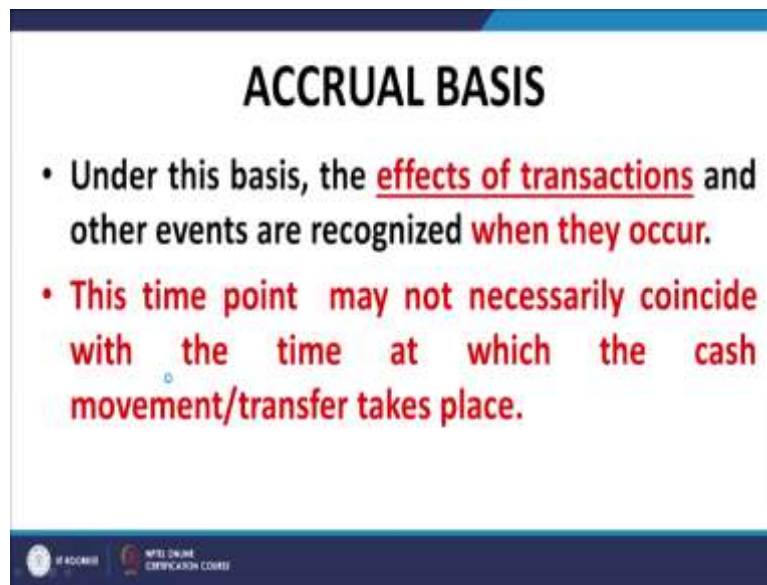
The second item that is another necessity an essentiality of recognizing an item, as an asset or liability is that the item has a cost or value that can be measured with reliability. Please note, it is not only measured, it says, that it should be measurable, and not only that, it should be measurable with reliability.

That means, that is necessary, because otherwise, if there is no reliable yardstick of measurement and a subjective value is attributed to a particular accounting balance, that would make the entire accounting process subjective, and that would substantially decrease the information worthiness of the account.

So, we need here. I will come back to this point again also, but at this point, we need to have reliable measurement. There should there should exist an apparatus, whereby, we can reliably measure the value or cost of that asset, that is fundamental.

If you cannot reliably measure or if the measurement envisage is very subjective, then you cannot incorporate that into the accounts. This is necessary, as I repeat, to maintain the objectiveness of the financial reporting statements. Fundamental assumptions underlying financial statements. Most of the learners would be aware of these two, but nevertheless, let me quickly touch upon them.

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Accrual basis and going concern basis. So, what is accrual basis? Accrual basis is that under the accrual basis, the effect of transactions and other events are recognized when they occur. Now, the important thing is that, the effect of transactions are recognized when they occur.

However, this time point, the time points at which the effects occur may not relate to or may not be the same as the time point at which the cash flow occurs. So, the company will recognize, the company will recognize accounting standards or accounting transactions.

I am sorry, the company will recognize the accounting transactions when the benefit or the detriment due to that accounting transaction has occurred with respect to the company. Irrespective of the fact, whether cash payment therefore or cash receipt therefore takes place at a later or an earlier date. So, this is what is the accrual concept.

You see, please note, the account, the life of the company for the purpose of accounts is split up into different segments, which are called accounting periods. Usually, it is one year but not necessarily so. So, usually, we have annual accounts and accounts are prepared for one year at a time. I repeat, it need not necessarily be so, but it is usually the case.

So, that means what? That means, there can always be a possibility that a particular item of expenses is incurred in a particular accounting period. Although, the payment therefore, is made in a subsequent or an earlier accounting period. It is here, that the accrual principle comes into play. The accrual principle says, that you will recognize that expense when the company has benefited.

At that point in time, at that point in time at which the company has benefited from that particular expenditure, notwithstanding the fact that actual payment for that particular item has been made in a subsequent or an earlier accounting period.

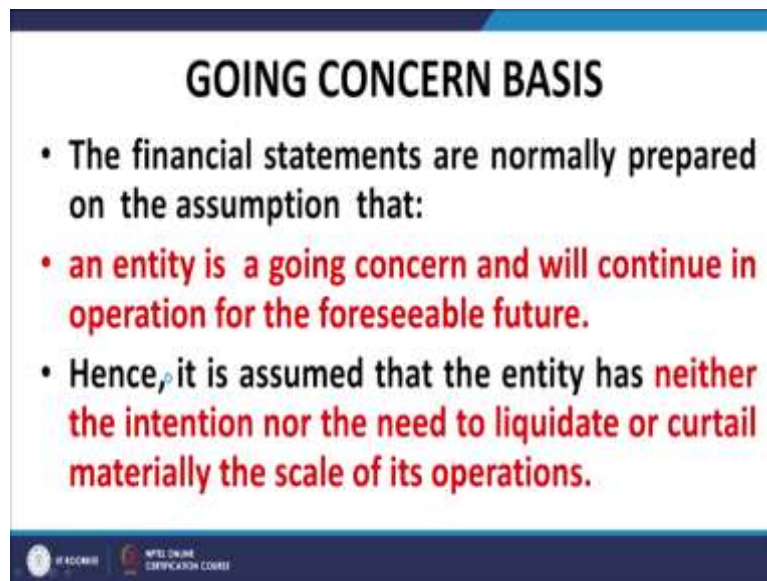
So, accounting transactions are reported in the accounting period to which they relate to which the companies, if the impact is felt by the company that is important. That is the point, which will determine when these accounting transactions are to be recorded or with reference to which these accounting transactions are to be recorded.

That is, in which the entity benefits from them. Notwithstanding the fact that actual payment or receipt of cash or its equivalent occurs in earlier or a later accounting period. So, some examples here, unpaid salary, outstanding interest, prepaid insurance, these are some typical examples. I will not devote too much time to it. Unpaid salary, what happens normally is that we pay salary to our workers who are engaged in the factory usually in the first week of the subsequent month relating to the work they are performed in the earlier month.

For example, if you take a March closing. Let us take March closing, the salary for the month of March for the workers who have worked in the factory in the month of March would usually be paid in the first week of April. So, the cash flow is occurring in April, which is saying in this next year, next accounting period. The benefit of that work is being derived by the company in the earlier accounting period.

So, the accrual concept says that you will recognize the wages in the earlier accounting period in which the company has benefited from the work of those workers, even though the salary therefore is paid in the subsequent accounting period. So, that is what is the meaning of accrual concept. Now, we come to the going concern concept.

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**GOING CONCERN BASIS**

- The financial statements are normally prepared on the assumption that:
  - an entity is a going concern and will continue in operation for the foreseeable future.
  - Hence, it is assumed that the entity has neither the intention nor the need to liquidate or curtail materially the scale of its operations.

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Going concern I have alluded to a number of times. The financial statements are normally prepared on the assumption that an entity is a going concern, and therefore, will continue in operation for the foreseeable future.

So, there is, we believe, that the company has neither the intention nor the need to liquidate or curtail materially the scale of operations. In other words, it is sustainable for the foreseeable future the operations of the company are sustainable for the foreseeable future. And the valuation of the various assets and liabilities that is normally done in the absence of any specific information on the premise that the business is sustainable, is sustaining itself and there is no possibility, no prospect of the liquidation of the business or its assets in the near future or the curtailment, material curtailment of the operations of the business.

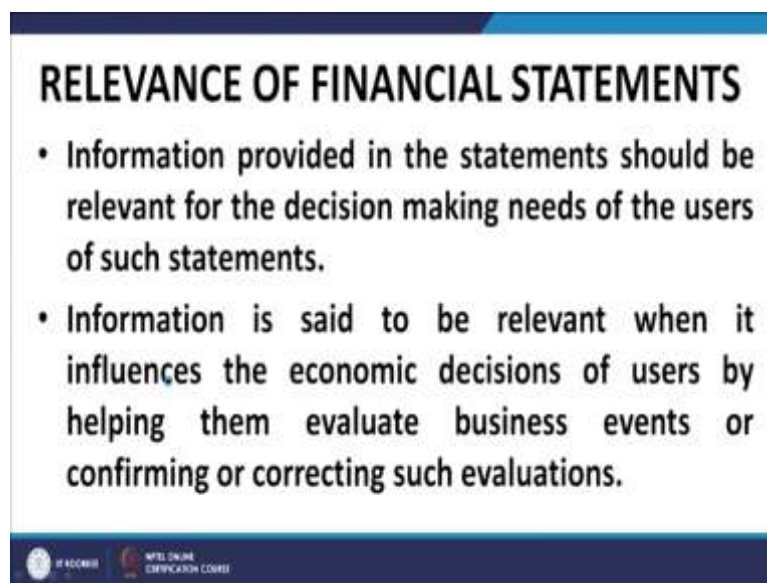
Because if there is such a situation, then the valuations will need to be changed. The valuations of various assets and liabilities will need to be done on the premise that they will be liquidated very soon. So, that will substantially affect, materially affect the overall financial position of the company. Therefore, in the absence of information, there is an understanding, there is an implied assumption that the business is being treated as a going concern, and there is no need to liquidate the business in the very near future or materially curtail the operations of the business.

And if such a situation exists. If such a situation of liquidation or curtailment does exist then the management of the company is mandated to disclose this fact, and to value the assets and liabilities accordingly. So, if such an intention or a need exists, the financial statements may have to be prepared on a different bases and the bases needs to be disclosed.

So, if there is need to liquidate the company in the very near future, then valuations will, all the asset liability valuations will be done, will need to be done on that premise, and the basis of the valuations will need to be disclosed, as well as, the fact that fact of prospective liquidation will also need to be disclosed in the accounts.

Relevance and reliability. Now, this is a very interesting point. Accounting information needs to be, both, reliable and relevant, relevant and reliable. These two forms, the basic, what we call attributes of the financial accounts or the financial reporting. So, what is the relevance and what is reliability? Let us quickly try to understand it.

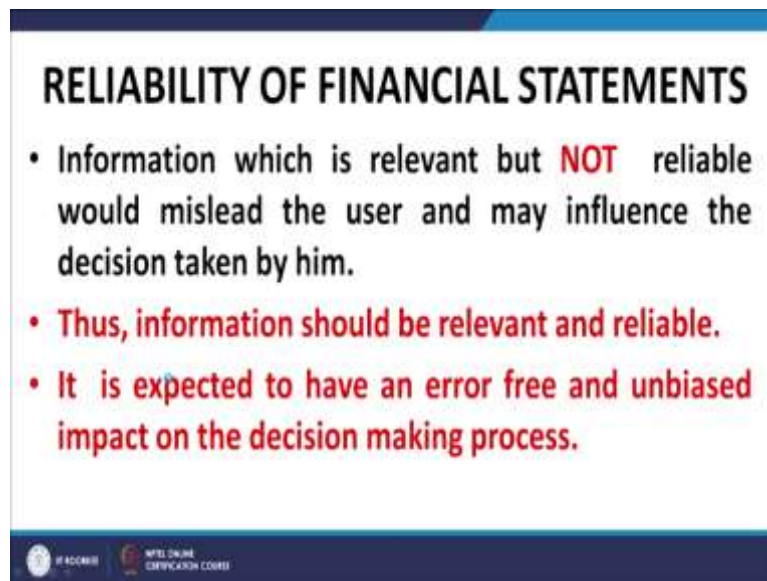
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Information provided in the financial statements should be relevant for the decision-making needs of the users of such statements. So, what is the meaning of relevant? Information is said to be relevant, when it influences the economic decisions of users by helping them evaluate business events or confirming or correcting such evaluation.

So, an information, first of all, information needs to be relevant where financial statements need to be prepared on the premise that serve a relevant need or they are relevant to the decision-making processes of various users of those financial statements. And they are relevant when they influence or the information contained in the financial statements is able to influence the decision-making process of the users of the financial statements.

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**RELIABILITY OF FINANCIAL STATEMENTS**

- Information which is relevant but **NOT** reliable would mislead the user and may influence the decision taken by him.
- **Thus, information should be relevant and reliable.**
- **It is expected to have an error free and unbiased impact on the decision making process.**

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Now, we come to reliability. Information, which is relevant, but not reliable, what misleads the user. Now, this is what I mentioned a few minutes back. Information, which is relevant, but not reliable would be worst. See, if information is irrelevant and unreliable, okay, you can throw it into the dustbin, but if the information is relevant, you are likely to be guided by it.

And now, if that information is unreliable, then you are likely to be in trouble, if you rely on that information for making a business decision. So, information which is relevant, but not reliable, would mislead the user and influence wrongly the decision taken by him. This information should be relevant and reliable.

If information is relevant, it is unreliable, it could make it could induce you to wrong decisions, wrong economic decisions, because of the lack of veracity of that particular information. So, information contained in the bottom line is, information contained in the financial statements need to be, both, reliable and relevant. And it needs to be, at least, sufficiently error free and unbiased. Sufficiently error free and unbiased, to maintain that kind of an impact on the decision-making process.

However, relevance and reliability are both not easy to achieve together. In other words, what I am trying to say is, reliability and relevance tend to conflict with each other, tend to operate opposite in opposite directions. And as a result of which we need to make a trade-off between relevance and reliability.

For example, let us look at historical cost. Historical cost of an asset is pretty much a reliable item of information. Why it is reliable? Because it is supported by the bills of the supplier,

the vouchers and every, the goods received note and everything. So, to that extent, one can say, that the historical cost of an asset is a reliable item of accounting information.

But when we look at the historical cost from the perspective of relevance. For example, if you have purchased a piece of land 50 years ago, and that stands in your balance sheet at the same figure at which it was purchased, it is a reliable figure, no doubt about it, but how relevant it is to the current decision-making is obviously a matter of huge concern.

When we are talking about information relevant to current decision-making, we are more concerned with the alignment of that information to the future. How that information conveys, captures, what is the likely happening or the likely course of events that are going to take place in the future.

So therefore, items which are recorded in your accounts at historical cost, may not be the correct relevant basis or historical cost may not be the correct relevant basis for recording of information, for presenting of information when it comes to relevance. And conversely, if now I substitute assets at market values. For example, let us say, I completely substitute all the balance sheet items at market values.

Now, obviously, market values are very difficult to ascertain with absolute reliability. Market values would differ from market to market from user group to user group, and therefore, and indeed some of the assets may not be traded actively in the market, some of the assets may only be sparingly traded, and some of the assets even may not be traded at all. Then how do you value goodwill then in that case.

So, if you are talking about a fully market-based balance sheet, you are again in trouble. Because in that case, it is surely relevant, because it is conveying you what the market perceives about the company, and what the market perceives about the company is based on what the future prospects are the various assets and liabilities of the company as a whole are.

So, in that case, the information is strongly relevant to your investment decision making, but it is strongly unreliable as well. So, we need to have a trade-off between reliability and relevance. That is where the issue of valuations creeps up. Whether we should value the assets at historical cost or we should value them at an alternative on an alternative basis like fair value or market value. I shall be addressing this question in the next lecture.

So, the bottom line is, here relevance and reliability are conflicting, and it is not easy to achieve perfection. Indeed, it is impracticable to achieve perfection with respect to both,



reliability and relevance. We need to have a trade-off between the two, and it is this issue of trade-off that leads this, leads us to various approaches in the valuation of assets and liabilities in the balance sheet. The historical cost approach or the fair value approach, which I shall take up in the next lecture. Thank you.