Management of Commercial Banking
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Lecture 35
Management of Lending Activities 5

So, in the previous class we discussed about the concept of charge and the charge is nothing but the process through which the debtor provides the ownership to the lender at the time of default this particular asset can be utilized to recover the loans. And other thing we have discussed about the different types of the loans what are the business units always demand. And this particular loans are categorized on the basis of the time period and as well as the use of that particular loan.

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So, after that will see that in this particular context whenever any business unit provide this particular or demand that particular loan and the commercial banks provide this loan, before they provide, they basically go for a thorough assessment of that particular loan demand or the loan activities. And after the thorough assessment they would decide whether the loan will be given to them or not. Or if it will be given that at what price it will be given.

So, the different processes that is a proper credit appraisal process and the credit appraisal process whenever the demand basically comes from we can say that the business units and the business

units demand will be considered by the commercial bank by using a thorough analysis there are different ways this particular loans are analyzed.

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But in todays discussion will be see that how this particular loan applications are analyzed by the commercial bank? And mostly the commercial banks go for a financial ratio analysis or the financial statement analysis from the various perspectives. They look at the efficiency, they look at the control over the expenses, how the particular company or particular corporate sector or business units, or the firm is able to control their expenses.

And, whether they are able to market that particular product in a better way and as well as what kind of credit worthiness this particular unit has and as well as whether they have their solvency is quite high or not, which is covered through the interest coverage ratio and other things. What is the financial position of this particular entity or the business unit in terms of the profitability in terms of liquidity?

So, these are the different issues what always we observe whenever we analyze about the financial condition of a business unit or for a particular firm. So, that is the basic step what the banks always do that whenever they want to analyze whether the loan should be given to this particular units or not. So in this context, in today’s session we will be discussing certain kind of ratios, certain kind of indicators which are used by the commercial banks for providing the loan.

Then we can carry out this discussion further also by considering the other parameters with respect to that.

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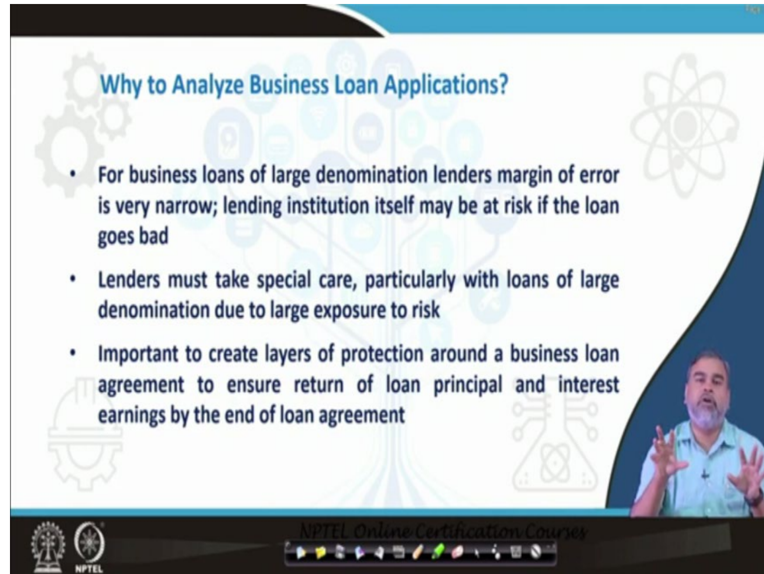

So, first of all we see that why to analyze the Business Applications? Why we are analyzing this? Why there is a requirement? What is the need? So, it is a need in this sense already we have seen that the demand or the loans which are demanded by the firms, these are not a small amount.

These are basically a large amount sometimes the demand. So, if the large amount of money is demanded by them, then a margin of error if there is small margin also then the particular small error can basically we can say that can be manifested to a larger risk for the commercial banks or the lender.

So, that is why a thorough analysis is required, because even if the error is small, but that error can aggravate it to a particular extent by that it will not be possible by the lender to recover the loan or maybe they will be exposed to more risk in that particular point of time. So, therefore, the lenders always take special care, particularly the loans of the large denominations, because they are exposed to more risk with respect to that.

Therefore, they always create a layer, layer of protection around a business loan agreement and to ensure that the return on loan principle and interest earnings by the end of the loan agreement that means periodically the principle and the interest, how this particular thing can be recovered that

basically is the concern for the commercial banks. And already we have seen that because the loan amount is quite large.

So, if there is a small error, then that basically can increase the risk of the commercial bank to a larger extent. So, because of that, they always see that whether really the credit worthiness of that particular unit is really there or not and accordingly they decide whether the loan will be given or not. So, because of that analyst, thorough analysis of is required for the loan applications.

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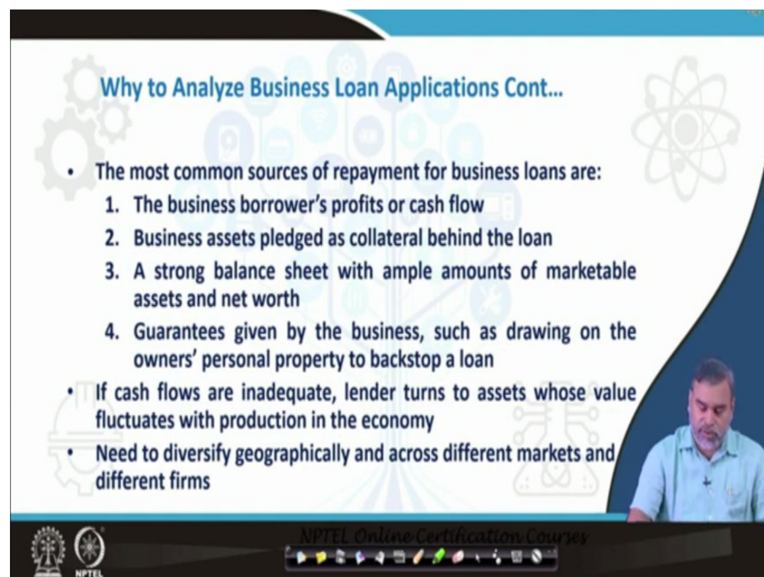

So, what are those things the bank basically sees? Whenever the bank basically sees, obviously, the bank will see that, what the probability of repayment of that particular loan is. So, whenever we talk about the probability of repayment then apart from the other psychological factors, behavioral factors which also play the role for recovering the loan or for the repayment of the loan.

But, apart from this the first thing which is tangible factors are the financial factors which are also important. So, then those factors has to be analyzed, because these are easy to quantify or may be banks are able to quantify them because the data is basically visible and data is observable in nature. So, first of all the banks basically see that, what is the expected cash flow this particular business in it can generate in the future?

But what is the prospect of the particular debtors, profit generation and how the cash flow can be enhanced over the time, whether the positive cash flow can be generated over the time for that

particular business? So, that basically they will look at first. Second is that what kind of collateral this particular business unit can provide? So, whenever the collaterals are given the collaterals can be anything, any kind of asset, just in the previous session, we discussed about that.

It can be any kind of land, it can be building, it can be machinery, it can be anything. So, in that context, the bank also always look at that what kind of collateral this particular firm is able to provide whenever they are demanding this particular loan. So, that also they will look at. The next thing is they have to look at that, this balance sheet should be stable and it should be quite strong.

And their net worth that means the investment by the equity holders will be reasonably in a good state and the asset what the particular bank has these are marketable. You know this marketable if it is the assets are not marketable, then generation or enhancement of the profit is relatively difficult. So, in this context, they have to look at whether this balance sheet over the time it is strong or not. And as well as that what kind of equity holdings this particular bank, particular business unit has.

So, accordingly they can decide that whether the financial condition over the time is sustainable or stable by this particular business unit or not. Then another thing also they look at that is the guarantees given by the business such as the drawing on the owners personal property to backstop a loan. That kind of guarantee this particular loan has, then who is the owner whether this personal property is there can be utilized for that particular loan or not?

That also generally the business units always provide the data, they provide to the bank and the bank will basically assist them thoroughly before they decide that the loan should be given to them or not. If cash flows are inadequate, lenders turn to assets whose value fluctuates with production in the economy and always the banks need to diversify, look at that whether the commercial bank whenever they provide a loan, they always look at.

That whether this particular business what the business unit is doing there whether it is diversified or not. So, the diversified in terms of regions, in terms of geographical regions, in terms of the different markets. And also looking at the different prospective if it is given to a particular industry who has many firms, then also look at the firms and as well as the products.

So, in these contexts, they look at that whether the particular business is diversified from the various perspectives. They look at that, whether they have the potential to generate the cash flow in the future. They also look at that what kind of asset can be utilized or can be used as the collateral. And whether the asset whatever the particular business unit is holding that is marketable or not.

So, these are the different factors basically the lenders always look at whenever they want to analyze the loan application of any business units. So these are the different issues basically, they always consider while analyzing this business loan proposals.

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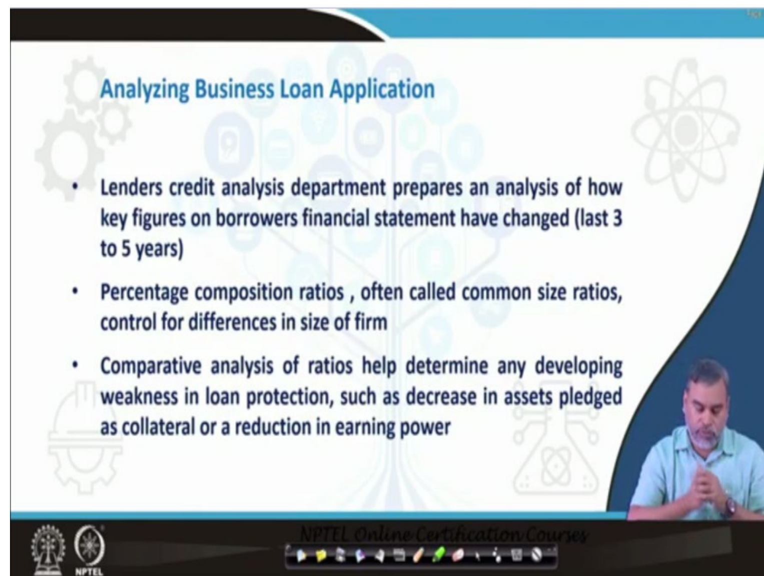

So, in this context, every bank has a credit department, credit analyst which is the most prominent department in the banking sector. They basically analyse that how the different kind of financial figures which is basically always we received from or we can get from the financial statements have changed over the time. So, instead of looking at only the previous data, so, minimum 3 years data analyse.

It can be more than that. So, if historical analysis of this particular financial statements will be carried out, then the bank will have a kind of idea that whether this particular business what the particular business unit is doing that is sustainable or not and as well as what is the probability of generation of the cash flow and even also little bit if they go beyond that particular limit, they can

also calculate that what is the kind of probability of failure in the bank, in the market from the business prospective by this particular firm.

So, in in this context what we are trying to say, we are basically trying to say that the, a thorough historical analysis of the financial statements are required whenever the loans applications are analyzed. So, how they analyse? Obviously, whenever the analysis are made, the analysis should not be considered on the basis of the absolute data, because absolute data does not provide an adequate amount of information for the comparative regions.

So, whenever we go for analysis of a particular kind of data then it is always advisable to go for a ratio analysis and if the ratio analysis will be adequate enough or can be done then it is basically provide a comparative statement across the time and as well as across the different type of firms, different types of industry or comparison with the industry with respect to that particular firm.

So on overall basis they can get an idea that whether this particular firm or the business unit is able to generate the adequate amount of cash flow or they can enhance their profit by that the loan can be repaid in an appropriate time. So, that is why it is mostly a common size ratios they consider for this analysis. Because already we have explained this that the comparative analysis of ratios help determine the weakness of the loan protects and developing weakness in the loan protection.

Such as, decrease in assets placed as collateral or reduction of the earning power, because any asset which can be used as a collateral in the pledging process, if you see the value of that particular asset also may change over the time. So, accordingly the credit department can analyse what is the probability of changing the value of that particular asset which is used as a collateral and as well as they can consider that whether the particular bank is well enough to be given the loan or not.

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So, whenever you talk about this there are many ratios the commercial banks use for providing the loan. Some of the ratios are basically related to the balance sheet and some of the ratios are related to the income expenditure account or the profit-loss account. So, if you see that whenever talk about these different ratios what the commercial banks always look at.

It can be with respect to the total assets or it can be also with respect to the total liabilities and the net worth or sometimes also which look at with respect to the total sales. Because we need a common size statement which can provide a fair idea that how this particular bank is particularly business unit is performing. And the bank always look at those ratio analysis over a period of time.

Not only the current period data is considered or 1 year period, 1 year data is considered, always they consider reasonable a longer period of time to examine whether the consistency of that particular financial data is there or not. So, in that context, we have cash to total assets, we have marketable securities to total assets, we have account receivables to total assets, we can have inventories to the total asset, fixed assets, net of depreciation to total assets.

And there are some miscellaneous assets what the commercial banks always try to look at, the business units whole and how they are, basically what the ratio of that thing with respect to total assets is. So, another thing is you can also look at the accounts payable to the total liabilities. You can also look at the notes payable to the total liabilities and net worth taxes payable total current liabilities that means, which is highly liquid, long term debt obligations what the banks have.

Then they might have some other kind of traditional, non-traditional liabilities what the business units will be must have then also the net worth or the what is the equity value, owners' equity value of that particular business unit. So, these are the different ratios they look at.

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Analyzing Business Loan Application Cont..

Important Income Statement Composition Ratios

Percentage Composition of Total Income (gross revenues or sales)

Cost of sales/Sales
Gross profit/Sales
Labor costs (wages, salaries, and fringe benefits)/Sales
Selling, administrative, and other expenses/Sales
Depreciation expenses/Sales
Other operating expenses/Sales
Net operating profit/Sales
Interest expense on borrowed funds/Sales
Net income before taxes/Sales
Income taxes/Sales
Net income after taxes/Sales

So, one by one if you see that, we will see that how this particular ratios are calculated, they can also use the income expenditure account or statement. So, there they look at the cost of sales divided by sales ratio, gross profits to sales ratio, what is the labour cost? What are the depreciation expenses?

What is the operating, other operating expenses? Then also they look at finally, what is the net income or income after tax but this is the balance sheet and the income statement figures. They always carry out thorough analysis of these figures before they decide that whether the particular business unit is credit as the credit worthiness to be given the loan.

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Financial Ratio Analysis of a Customer's Financial Statements

- Information from balance sheets and income statements is typically supplemented by financial ratio analysis
- Critical areas of potential borrowers loan officers consider:
  1. Ability to control expenses
  2. Operating efficiency in using resources to generate sales
  3. Marketability of product line
  4. Coverage that earnings provide over financing cost
  5. Liquidity position, indicating the availability of ready cash
  6. Track record of profitability
  7. Financial leverage (or debt relative to equity capital)
  8. Contingent liabilities that may give rise to substantial claims in the future

So, if you see that the first one is that whenever we talk about this, whatever those different things we basically check? Whenever the loans are analyzed or the applications are analyzed. So, the financial statements what the particular business units have like your balance sheets and income statements, what are those kind of information the banks always get whenever they analyze this.

They basically look at, they always try to look at that whether the particular firm is able to control the expenses or not. Whether the expenses are controlled or not? What is the operating efficiency or operating efficiency basically shows that how the resources are utilized or resources are used to generate the sales. They also look at the marketability of the product, whether the product line whatever the particular business unit is producing, that is marketable in the market or not.

Then coverage that earnings provide over financing cost, whatever money they have borrowed, whether the sufficient amount of profit that they are generating to cover up that interest payments. What is the liquidity position of that particular business unit? That means, whether the ready cash availability is available with that particular unit or not to fulfill the short term requirements. What is the profitability record?

Over the period of time whether the profitability is more fluctuating or profitability is more or stable or profitability showing an inclining trend or it may be showing a declining trend. So, those kind of data also the banks always look at or the lenders always look at. Financial leverage which

is nothing but the financial risk. We consider that already if the leverage is high, the bank is more prone to the bank bankruptcy and there is a possibility of liquidation in the future.

Although there are debates against that, some people say that it is good some people say that it is bad, and what because of that the market condition is also another factor which has to be looked up on whether the high leverage ratio with this particular or for a particular business unit is good or bad? Then they also look at the contingent, contingent liabilities, which may give rise to substance and claim in the future.

Recently, these liabilities are not realized, but in the future, the liabilities can be realized and already the commitment has been made by the business units for that, and the bank also look at that thing, what is the future commitments they have.

So, the future commitments basically leads to the liability or the contingent liability, which is already a liability may not be existing now, but the liability may be increasing or maybe increasing in the future, depending upon the positions what the business units have taken. So, that is why that also they look at.

So, considering all these things basically if you see that mostly they do a very thorough ratio analysis to examine that whether the particular business unit should be given the loan or not.

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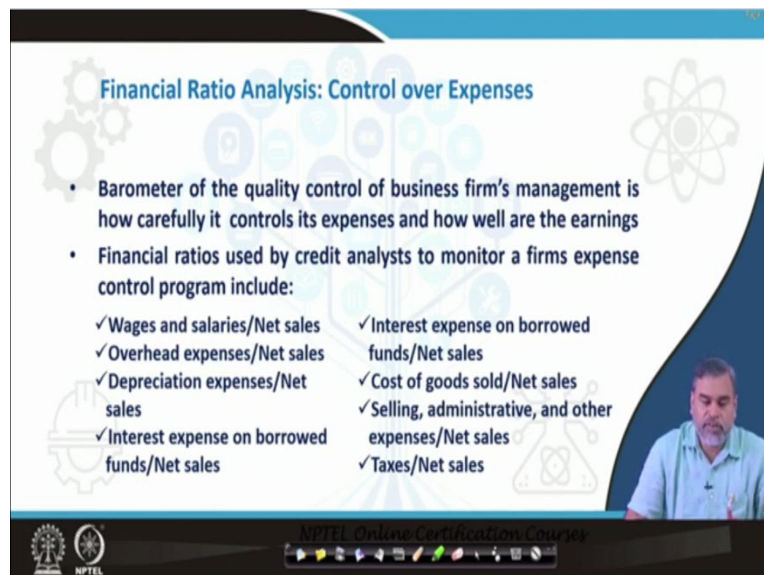

So, first one what is the control over expenses? Whenever you go for the financial ratio analysis by using the data from the balance sheet and the income statements, first of all the commercial banks look at whether this particular business unit is able to control the expenses or not.

So, whenever we talk about the controlling the expenses, what basically the things we look at, how those things are measured? So, this is basically a kind of indicator of the quality control of the business. And here we have to check that how carefully the business unit controls is expenses and how well are their earnings against the expenses. The expenses should be reduced and earnings should be more.

So, how efficiently the particular business if they are able to manage these things that basically when you look at whenever we look at the control over expenses ratios. So, the ratios which are used to measure the control over expenses of a particular firm, is wages and salaries to the total net sales income, the overhead expenses to the sales income, net sales income depreciation expenses with the net sales, interest expenses on borrowed amount to the net sales.

Then interest expenses on the borrowed amount are borrowed funds on the net sales. Cost of goods sold divided by the net sales, selling administrative and other expenses divided by the net sales, then whatever the taxes the particular business unit is paying, and what is the proportion of tax the business unit paying that is a tax upon the net sales.

So, these are the different ratios which basically provide, how efficiently this or how the particular business unit is able to control the expenses, and whether they are able to generate the earnings over the period of time from that particular business, what they are doing. So, these are the ratio related to the control over expenses.

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Financial Ratio Analysis: Operating Efficiency

- Measure of the business firm's performance effectiveness
- How effectively are assets being utilized to generate sales?
- How efficiently are sales converted into cash?
- Important financial ratios here include:
  - i. Annual cost of goods sold/Average inventory (or inventory turnover ratio)
  - ii. Net sales/Net fixed assets
  - iii. Net sales/Total assets
  - iv. Net sales/Accounts and notes receivable
- Average Collection period = Accounts receivable /(Annual credit sale/360)

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Then also the most important thing is also they look at the Operating Efficiency. So, whenever we talk about the operating efficiency, how banks basically measure the operating efficiency or the how basically the operating efficiencies are measured. First of all this measure, the business units operating efficiency are considered to look at that how the firm's performance is effective.

Whether the business firm's performance is effective or not, that can be judged from the operating efficiency of that particular organization. How the assets effectively the assets are utilized to generate the sales? Because, the basic objective is to increase the sales income. So, how effectively this particular company is able to utilize that particular assets to generate that particular profit. And obviously, the profit is coming out of the sales only.

How effectively the sales are converted into cash? Then whenever they have enough goods available with them, whether those kind of goods are basically sold in the market in a better way, then automatically the cash can be realized to the particular business unit. So, what are those different ratios which are used to measure the operating efficiency? We have the cost of goods sold divided by the inventory.

Then we have the net sales upon the net fixed assets, the net sales upon the total assets, net sales upon the accounts and notes receivable. So, obviously if the net sales upon net fixed asset is more that means what the fixed assets are properly utilized to generate the profit for this particular company.

And now, that means, this resource maximization, utilization is happening to that particular company in a very effective way, if the net sales to the net fixed asset is higher. The same logic can be applied to the total assets. And also we can say that, always the companies should be considered in such a way by that the operating efficiency will be very much effective and as well as due to the operating efficiency, the total profit or the net profit of the organization can be enhanced or can be maximized.

So, here the collection for the calculation of the collection period we have considered the 360 days instead of 365 it can be also 365. So, your average collection period is nothing but the account receivable upon the annual credit sales divided by 360. So, that is basically the average collection period what the bank has because average collection period is basically a financing activities what the commercial banks do, as a short term credit financing.

In Indian context we call it the trade credit concept or everywhere it is considered as a trade credit concept. So, depending upon the requirements the particular commercial banks can provide the loan to the business units, but business units basically demand for the loans also for the different purposes. So, according to them that this particular measure shows the short term financing.

Although some people argued that this also provide idea about the long term financing, but mostly this is used as a short term financing instrument for the commercial banks for the business units.

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Financial Ratio Analysis: Marketability of Customer's Product/Service

- Repay of loan also depends on the business customer's ability to market goods, services, or skills successfully
- Lender has to assess the public acceptance of what the business customer has to sell by analyzing factors such as growth rate of sales revenue, market share, gross profit margin(GPM), and net profit margin (NPM)

$$GPM = \frac{\text{Net sales} - \text{Cost of goods sold}}{\text{Net sales}} \qquad NPM = \frac{\text{Net income after taxes}}{\text{Net sales}}$$

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Then they also look at the how the products are marketable, the marketability of the customers product that means these business units or the companys product. So, here whenever the company has to repay the loan in the future, that also depends upon the customers' ability to market the goods, services or skills.

Maybe sometimes the company is able to produce a very qualitative product, which has real value for money, but because of the lack of marketability of that particular product or maybe lack of skill set of the managers who are running this particular company. The products are not that were demanded, then accordingly, the total profit of that company gets affected by that. So, the lender has to assess the public acceptance of what the business customer has to sell.

By analyzing the factors such as growth rate of the sales, market share, gross profit margin, and net profit margin. So, these are the different ratios which are used to analyse that whether the marketability of these customer's product and services are happening in the market in that particular point of time or not.

So, your gross profit margin is nothing but net sales divided by the cost of goods sold divided by the net sales and net profit margin is net income after tax divided by the net sales. So, this is the way the gross profit margin and the net profit margin is calculated for any business unit. And looking at these two ratios, we can conclude that whether the marketability of this particular customer's product and services are there or are they existing in that particular system or not?

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Coverage ratio, which basically shows the solvency or we can say that the adequacy of the earnings of that particular business unit, coverage basically refers to the protection afforded by the creditors based on the amount of business customers earnings and there are many issues which are used, we know that about interest coverage ratio or the interest coverage, that is income before interest in tax upon interest payments.

Whether your amount of profit or amount of income what you are generating after payment of the interest in tax, whether that is sufficient enough to cover off your interest payments in the market or not, that basically measures through the interest coverage ratio. Then if you want to cover up both coverage of interest and the principal both then this can be again measured by

$$\frac{the\ income\ before\ interest\ and\ tax}{the\ interest\ payment + \frac{principle\ payments}{1 - firms\ marginal\ tax\ rate}}$$

Because it has to be tax adjusted, because we are considering both interest in the principle. Although the interest always does not carry any tax, but other kind of items which are there in the business units always involved the tax kind of sometimes we get the tax rebate but most of the cases we have to pay the tax. Because of that, we can say that is another of ratio what we have to consider.

Then the coverage of all fixed payments that means

$$\frac{\textit{the income before interest and lease payment}}{\textit{the interest payments} + \textit{the lease payments}}$$

But the proportion basically what we can get in terms of income with respect to the interest payments and the lease payments, whatever the particular business unit or the company has made, then accordingly, we can say that whether the particular company has the adequacy of earnings or they are sustainable over the time, their solvency is good enough to repay the loan in the future.

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Financial Ratio Analysis: Liquidity Indicator

- Reflects the borrower's ability to raise cash in timely fashion at reasonable cost, including the ability to meet loan payments when they come due

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

$$\text{Acid-test ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

$$\text{Net liquid assets} = \text{Current assets} - \text{Inventory} - \text{Current liabilities}$$

$$\text{Net working capital} = \text{Current assets} - \text{Current liabilities}$$

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The liquidity indicator which is very important because from the banking perspective, that also always bank look at in a different way. So, here the borrower's ability, liquidity measures basically measures the borrower's ability to raise the cash on time at a cheaper price or maybe the lowest price, including also the ability to meet the loan payments, when there is a due.

So, they are able to generate the cash or they can reduce the cost and also, they also try to meet this loan payments ability to make commit the loan payments when they come due because they have taken a very long term loans. So, accordingly they have to decide that how the loans can be repaid in appropriate time gap. So, there are many ratios all of you know these things that is popular ratio are current ratio.

Which is nothing but the current asset to the current liabilities, current means it is short-term, which are highly liquid. Then acid-test ratio

$$\frac{current\ assets - the\ inventory}{the\ current\ liabilities}$$

Then we have the net liquid assets = the current assets - inventory - current liabilities. The net working capital which is nothing but the current assets -the current liabilities.

So, these are the different ratios what basically the commercial banks always analyse for any kind of customer to understand that what kind of liquidity the bank has, as the firm has. So, accordingly they will decide that whether the loan, how much loan should be given and if the loan will be at all given or not and as well as what kind of price also will be imposed on them.

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Financial Ratio Analysis: Liquidity Indicator Cont..

- Commercial lenders are particularly sensitive to changes in customer's liquidity position; conversion of liquid assets, including cash accounts usually fund loan repayments
- Erosion of customers liquidity position increases the risk that the lender will have to attach the customer's lesser liquid assets to recover funds; hence time consuming, costly and uncertain
- Excess liquidity has forgone opportunity cost in terms of income producing assets
- Excess liquidity also invites dishonest managers and employees to "take the money and run"

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So, the commercial lenders particularly sensitive to changes in customers liquidity position, conversion of liquid assets, including the cash accounts. Who usually fund the loan repayments? Erosion of customers liquidity position increase the risk that the lender will have to attach the customers lesser liquid assets to recover the funds, which is very much time consuming, costly and uncertain.

Whether they are carryings that kind of assets with them or not, that is also another question? So because of that, the liquidity position has to be thoroughly checked up on whenever the loan will be disbursed to them. So, the excess liquidity has also forgone the opportunity cost in terms of

income producing assets and excess liquidity also involves the dishonest managers and employees to take the money and run.

So, although it is a very typical phenomenon it may not happen regularly, but that possibility is also there, that excess liquidity is sometimes not good for the bank first of all it cannot be utilized. And second one is that if the enough cash will be available, then there can be misutilization of that particular cash in the banking in the organization itself.

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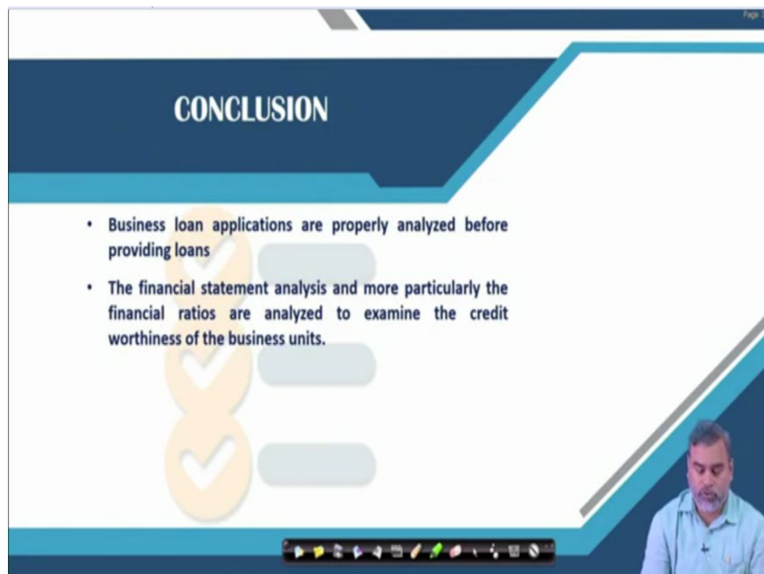

So, after this thing we have some more other ratios that we will be discussing in the next session. So, what basically we can conclude here the business loan applications should be properly analyzed before the providing the loans. And because there is excess risk involved in that, because of high amount of loans, what the business units always demand.

And as a part of the credit appraisal process, the commercial banks always look at the analysis of the financial statements of the firms who demand for this particular loan. And particularly, they use various ratios to analyze the credit worthiness of the business units. And the ratios include liquidity ratio, it includes the coverage ratios, it includes the efficiency ratios, it includes the marketability ratios, and the expense cost ratios.

And there are other ratios like your profitability ratio, then you have the leverage or the financial risk, which is also very important factor. That thing will be discussing in the next session. So, these

are the things what are the basic step or the beginning step for the commercial banks always use for evaluation of the loans or the credit as a credit appraisal process, this is the first step what always they look at.

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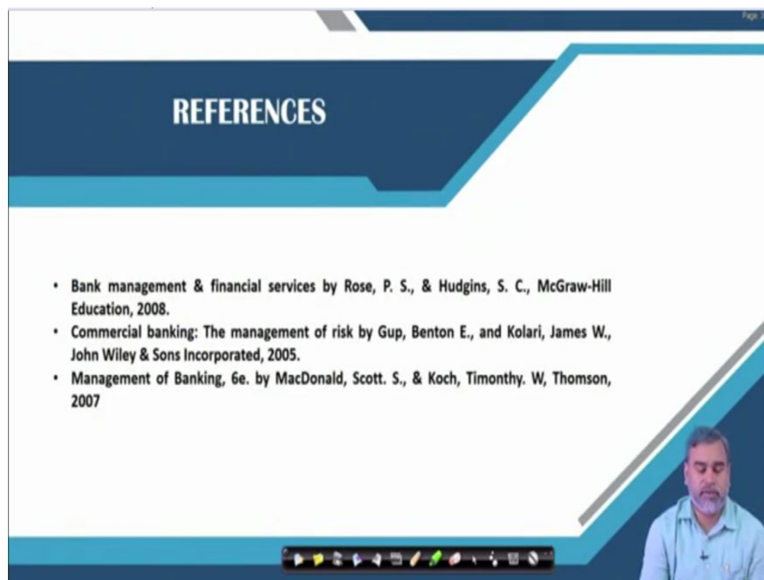

So, these are the references you can go through for the little analysis. Thank you