Management of Commercial Banking
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Lecture 08
Bank Performance Measures - III

So, in the previous class, we discussed about the certain measures which banks use for measuring the stability and the loan quality and as well as liquidity, which is different financial parameters what the bank use to measure their overall performance. In today's class we will be discussing about some other performance measures of the commercial bank where the performance basically not based upon the regular source of income for the commercial banks have.

We are mostly dealing with certain kind of other measures what really the commercial bank uses in terms of the non-interest income, non-interest expenses, etcetera. And why we categorize them because the interest income and interest expenses are the measure income and the expenses for the commercial bank in the general sense. But if you see in a practical sense also the commercial banks have many kind of sources of income and many sources of expenditure, where the interest is not a part of that or maybe regular business is not involved into that.

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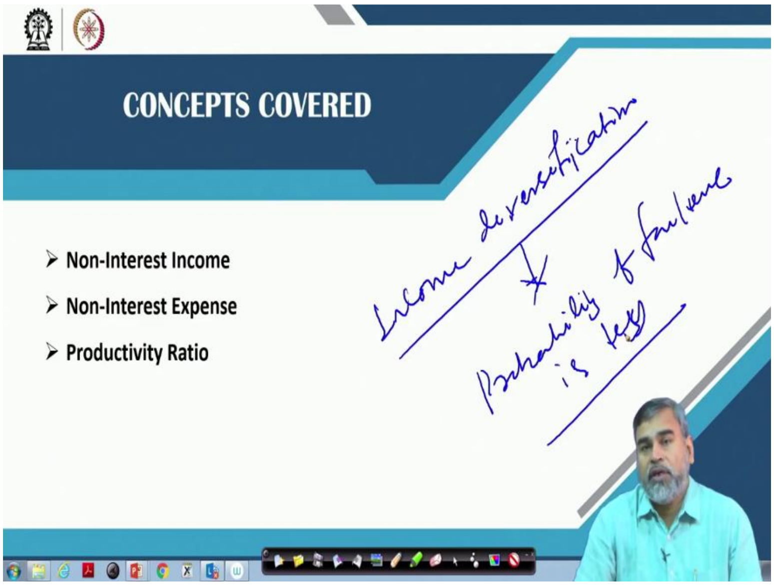

So, in today's discussion will be mostly covering these topics like what are those different sources of non-interest income? And what are those major sources of non-interest expenses? And how the productivity of the employees and the productivity of the bank as a whole is really calculated whenever we talk about the performance measures for the commercial bank? So, in this sense in today's discussion is little bit different than the discussions whatever we have made in terms of measuring the loan quality or the profitability or we can say that stability using the different financial indicators.

So, in that sense, if you see that, why we are discussing? Because in today's scenario, the banks are not confined themselves only for their conventional business. The banks are doing many things where they are also deviated from the conventional banking activities. They are providing many financial services, the portfolio of the products, what the commercial banks provide, they are not confined to deposits or loans or anything only, they have expanded that business in the different way. That is why the income is also changing or increasing and as well as the expenditure is also increasing, where those income and expenditure these are not a part of the regular sources of income and expenditure of the commercial bank.

So, keeping that thing in the mind in the globalized scenario, the commercial bank scatter many demands. So, if the commercial banks scatter many demands and how those kind of services or those kind of products are able to provide the better income facility to the commercial banks? Really commercial banks are good enough basically to utilize those kinds of products and services to maximize their total profit. So, this is basically the motivation behind discussing about the different components of the non interest, income on interest expenses.

Because if the sources of non-interest income is relatively higher, then we can say that there is a proper income diversification, if there is a proper income diversification that diversification leads to that income diversification. So, if really these sources of income are properly diversified, then the probability of failure of the commercial bank is less. The reason is that the bank is not dependent on a typical amount of sources of income, which can create certain kind of problem, if the bank is not able to generate revenue out of that.

If the bank is doing good business, creating certain revenue from the conventional business there is no problem. But because of certain reasons, whether because of competitive market or anything. If the bank is not able to generate the conventional sources of income, then this kind of sources will help the banks to increase their performance of the profitability. So, because of that, we are concentrating on this and second one is productivity, which refers to the productivity of the employees. And how these employees are really effective enough and how we can say that the employees are really effective enough, the productivity of the employees are higher, which will really help the banks to maximize the performance or the profitability.

So, keeping those things in the mind, in today's session, we are going to discuss the different components of the non-interest income and non-interest expenses and how the productivity ratios can be measured. This is what basically in today's discussion we have.

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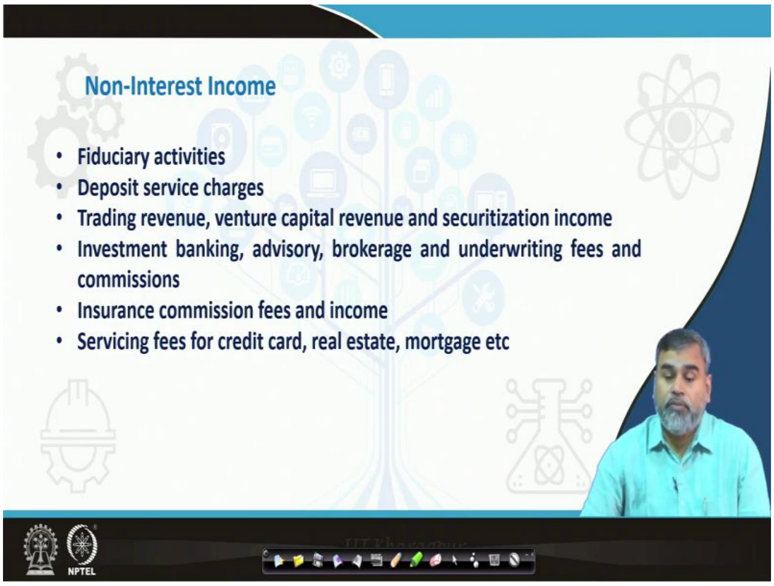

So, let us start with a non interest income. What do you mean by a non interest income? Apart from that what is the source of interest income? The interest income sources are loans, whatever loans the commercial banks have given against that loan, they get certain kind of revenue, which is the major source of the interest income.

But apart from this, the commercial banks can generate certain revenue from the fiduciary activities. Some kind of services in terms of consulting, some kind of services in terms of deposit service charges because they are maintaining your account and all these things. They charge certain money to maintain that, the deposit services. Then they also generate a huge amount of revenue from the trading revenue because nowadays the commercial banks have also the demand account. They provide these services in terms of the participation in the equity market. They facilitate the customers for their investments in the equity market, the trading as well as they charge some money that invest the money in the market against that they get the return, that is a trading revenue.

They trade their stocks in the open market and from that they also maximize the value of equity. They try to extract revenue from this. They provide this venture capital services, most of the commercial banks in today's context, if you see in India also the venture capital provisions, what do you mean by venture capital? The venture capital service is basically what? The venture capitals basically provide the resources for the risky business or the business which are going to start up or the business which are in the infant stage or in the early stage. And mostly the investment in those kind of ventures relatively risky, but the return is relatively higher.

And the banks basically most of the commercial banks have basically started the venture capital services to provide this resources or the capital for this kind of business. Particularly in today's context where there is a buzzword, we are using the startups. We have the new business and the business which have started but not yet mature, they are not able to generate the profit. But here there is the period of generating profit from that business is relatively longer, where the banks are ready to wait for that particular period but against that they generate certain kind of extra revenue, if really that particular business clicks in the market.

So, the venture capital revenue they generate, they also provide the securitization services in the commercial, in the finance sector. So, providing the securitization services with relatively risky services, the banks have the expertise to provide that. So against that they also generate certain kind of income or the consulting or the fees against that particular service. They have an investment banking division, already I told you in the beginning of the session, so whenever we started the discussion investment banking means what? Investment banking means here, they do not have any kind for deposit base. But they provide different kind of consulting risk management services to the different clients in terms of pricing the IPO, in terms of the valuation of mergers and acquisitions, so different kinds of services they provide as an investment banking service.

And against that they generate huge revenue out of this in terms of consulting fees or in terms of the merchant banking fees. They also play the advisory role for the different trading activities and other things against that they generate certain revenue. The brokerage fee already I told you because they maintain the brokerage account on behalf of the different clients and or the different investors in the equity market and as well as one market and because of that, through that sources, they can generate certain revenue.

Underwriting fees, in this sense, this is again, I told you that what do we mean by underwriting? The underwriting is basically a certain kind of security or the guarantee what they are providing that if there is any kind of loss, then the particular organization will incur or bear that particular loss. For example, if anybody has gone for IPO, and this particular one is not subscribed in the market, then the rest of the money which is not subscribed, that has to be subscribed by the merchant banks or the particular organization which is giving the underwriting fees. But for the underwriting services, they charge huge amount of commissions, through that they generate certain kind of revenue.

They also started this insurance business. We call them the banking insurance services what the commercial banks provide nowadays. Providing this insurance they generate certain kind of commissions, certain fees. Through that the non-interest income can be increased. Credit card is today's context, if you see it is one of the alternative products which are available which helps the customers to use it in a better way for their transaction activities. So, against that there is a servicing charge, the commercial bank’s charge through that generate certain revenue.

They can also invest the money in the real estates and whatever on behalf of other people and because of that, they make some housing projects and all against that they generate certain revenue, they can also generate revenue in terms of providing the mortgaging services. So, there are the different ways, these are the different sources of the income what the commercial banks generate, which is not a part of general banking services.

These services have started in the recent era due to the alternative developments in the financial system and there is competitions for the commercial bank space from the typical organizations which provide this kind of services. So because of that every commercial bank has started the separate division on this. And through that, they are able to generate more revenue at a part of the non-interest income.

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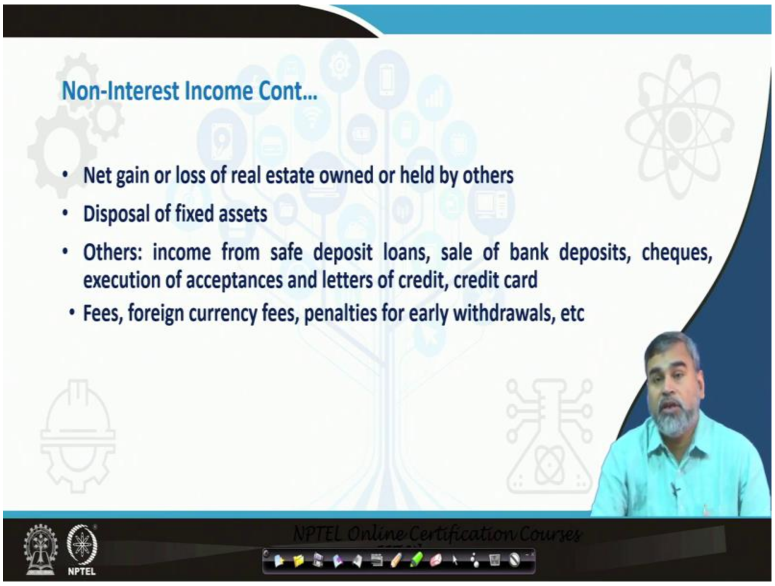

Then we have the other items like net gain or loss of the real estate owned or held by others. For example, somebody has taken that particular loan and they could not repay that loan. And the commercial banks can go for auctioning those houses or the real estate. And by selling those things, there is certain kind of revenue out of this. Disposal of the fixed assets if the commercial banks have acquired certain kind of land or certain kind of other fixed asset, which is not used by them, but still, they have sold this particular things in the market in a better market price than they generate certain revenue out of this.

Most of the cases you might have seen that commercial banks also nowadays providing this different kind of housing schemes. They make the houses and sell it. And because of that they generate certain revenue out of this. Then there are some other although not very large, but small income generating sources are there like income from safe deposit loans, sell of the bank deposits, they have also given the checks and against the checks if a particular amount of check is allowed, if you are issuing more checks, then they charge certain money out of this. They providing the letter of credit services through that they generate certain commissions in the incomes.

And penalties for the early withdrawals, foreign currency fees, whenever you are converting your currency from one currency to another currency, the banks charges certain commissions or the fees against that. So, all kinds of things if you combine these are basically consisting of the major sources of non-interest income for the commercial banks. And nowadays, the percentage of total non-interest income, total income is increasing, which is a good symbol for sustainability of the commercial bank. Because the banks are not only relying upon the conventional sources of income to maintain their profitability or sustaining for their sustenance in the market or for their existence in the market. So, that is why these are the things what always we should consider whenever we try to measure the income or the profitability of the commercial bank.

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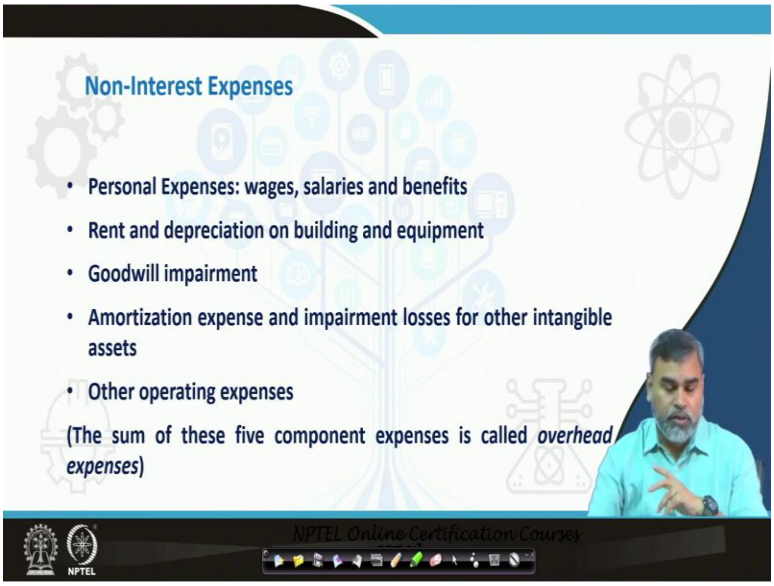

Like that, if you see the non-interest expenses, non-interest expenses if you consider the major non-interest expenses is the wages, salaries and the benefits which are given to the employees. The benefits are many whether it is a retirement benefit or whether it is a medical benefit, it is pension, there are many benefits what the banks provide. So, these comes under the personal expenses, salaries they pay, wages also they pay. So, there are certain full time employees, there are some contractual employees to whom they pay the wages and salaries also they pay for the full time employees. So, these are the major personal expenses at the commercial bank space.

If they have taken any kind of rent or house which is in rented basically then most of the cases the commercial banks do not own this fixed capitals like lands and all these things for their branch office operations. Maybe this particular branch is where the branch is running, that house is rented. So, that is why the commercial banks pays the fee for that particular house or particular office. Then over the year there is a depreciation of their buildings and equipment's whatever they have.

So that is also part of the non-interest expenses because obviously any fixed assets whatever the commercial banks possess those are prone to be depreciated. So, against this depreciation also they incur certain kind of expenses, goodwill empowerment, if there is any kind of problem happens their goodwill basically is hampered or damaged because of certain reasons, they also incur certain losses against that. Then losses for sometimes other intangible assets, intangible assets in the sense I am talking about the intellectual capital, sometimes some of the commercial banks lose this effective managers, effective employees. Sometimes also they lose certain kind of legal cases against that they incur certain kind of expenses, which is relatively sometimes incur to huge amount.

If there is really certain kind of bigger things happens to that particular organization. If there is any kind of grievances against that commercial banks, then there are many regulatory, penalty cost they have to pay. So, because of that also the non-interest expenses increases, if they do not basically comply with the different disciplinary norms or the regulatory norms imposed by the Reserve Bank of India, they have to pay a certain penalty to the central bank that is also part of the non-interest expenses. Then we have obviously, there are some other miscellaneous operating expenses where the commercial banks incur for the day to day business.

So, if you combine all this thing, you might have heard this word, all these basically five components, if you combine then we can call them the overhead expenses. There are and the overhead expenses of the commercial banks is a huge expenses, then you have to see really the commercial banks are able to generate that amounts of non-interest income, which basically maybe compatible with or comparable with the non-interest expenses what the commercial banks are facing. So, this is what basically the items for the non-interest expenses.

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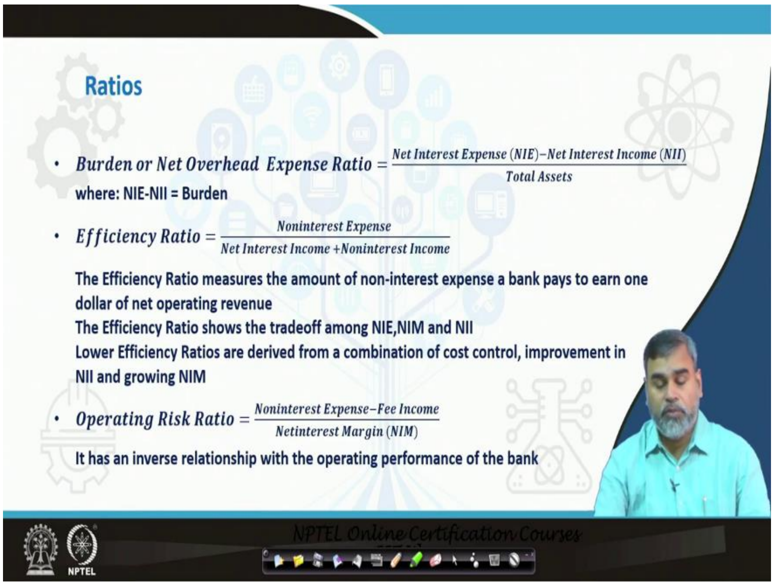

But now, how this particular things or particular items can be used to measure or to quantify the key ratios, which basically tells you that what exactly the performance of the commercial banks in terms of the non-interest expenses and non-interest income. So, one thing is the burden ratio or we can call it the net overhead expense ratio and how it is measured?

$$\text{Net Overhead Expense Ratio} = \frac{\text{Net Interest Expenses} - \text{Net Interest Income}}{\text{Total Assets}}$$

So, this is where the burden is nothing but the non-interest income minus the non-interest expenses minus the non-interest income. So, if it is increasing that means the burden is increasing. That means the expenses are more than the income. So because of that, the burden is more if it is less than the burden will be less. So, the burden ratio will have an inverse impact on the profitability. If the burden is increasing then the profitability is declining, if the burden is declining, then the profitability is increasing.

Then we have another ratio called the efficiency ratio, which is your

$$Efficiency\ Ratio = \frac{\text{Non} - \text{Interest Expenses}}{\text{Net Interest Income} + \text{ Non} - \text{Interest Income}}$$

Total interest income that means whatever interest income we are generating and the non-interest income what we are generating if you add it up. Then whatever non-interest expenses we are incurring, that shows that how this particular bank is efficient. That means the efficiency ratio measures the amount of non-interest expenses a bank pays to earn one dollar of net operating revenue. So, whenever any operating revenue the bank is generating to, and one dollar of net operating revenue, how much non-interest expenses the bank is incurring?

So, that basically measures the efficiency that how efficient the commercial bank is to generate that one dollar revenue in that particular time. So, that basically are against that non-interest expenses in that particular time that is basically measured through the efficiency ratio. So, if you observe the formula for the efficiency ratio or the particular items what you were using to measure the efficiency ratio, then the efficiency ratio basically shows a tradeoff between the non-interest expenses, non-interest income and the net interest income. Non-interest income, non-interest expenses and net interest income, these are the three different components which is used to measure the efficiency.

So, the lower the efficiency are derived from the combination of the cost control and the improvement in the NII and the growing net interest income or net interest margin what you can say. So, if you see that if you increase your non-interest expenses in comparison to the net interest income and the non-interest income, then efficiency ratio will increase in the sense that their interest income is declining and non-interest income is also declining but non-interest expenses is increasing and which is not a good symbol for the commercial banks.

So, what the commercial banks want? The non-interest expenses should be lower in comparison to the net interest income and the net interest and the non-interest income. If the denominator side is increasing, then the ratio will be declining, so, that is why we can have a kind of indirect or inverse relationship between the performance and the efficiency ratio. Then we have another ratio that is called the operating risk ratio.

So, if you discuss about that thing, then what you can conclude in this in the sense that the banks should adopt certain policies, certain kind of methods by that the non-interest expenses can be declined, if really the bank is able to generate the better revenue or maybe the effective they can generate certain kind of revenue which is more effective or the efficiency of the commercial banks can be enhanced.

So, the efficiency will be better if the non-interest expenses are lower, and the efficiency will be lower whenever the non-interest expenses will be higher. So, this is what, that is why there is an inverse relationship we are expecting. And another one is the operating risk ratio, which is the non-interest expenses minus the fee, income whatever the commercial banks are generating divided by the net interest margin. So, this is the operating risk ratio what the commercial banks use and it is also the inverse relationship with the operating performance of the bank.

Because we are deducting from expense to income. So, because of that in this cases we are expecting one inverse relationship between these different kind of ratios with the total or overall performance of the commercial banks.

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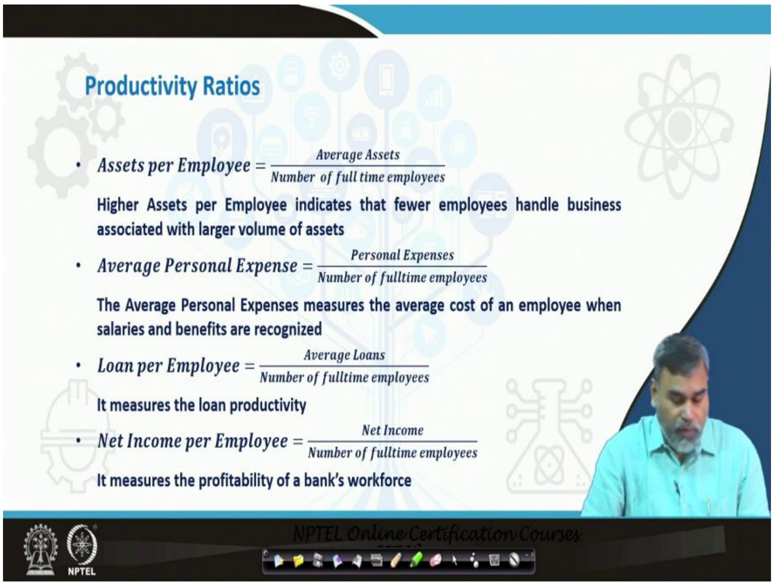

Then, there are many productivity ratios the commercial banks use, already I told you the productivity ratios are basically linked to the, the employees or the people who are working in that particular bank or in that organization. The first one is asset for employees which is

$$Assets\ per\ Employee = \frac{Average\ Assets}{Number\ of\ Full\ time\ Employees}$$

So, the higher the assets for employees indicates that fewer employees handle business associated with larger volume of the assets.

You see that when the ratio will be more that means what? The number of full time employees will be lower or the average assets will be higher, keeping your average assets remain constant, how we can increase the asset for employees? You can increase whenever the full time employees will be declining. But if the full time employees will be declining, your asset may also decline.

Because maybe the total capacity utilization of the commercial bank is not fulfilled and the bank is not able to generate as much as asset to maximize their revenue. But otherwise you can argue also some of the banks in practical sense keep less employees. But still their assets are more that means their employees are more productive, keeping other things remain constant. If the number of employee is relatively less, but still the assets are increasing or the profitability or the performance is increasing that means the bank's productivity of the employees are relatively higher.

But in the sense, sometimes also the another strategy the commercial banks use or many organizations use that they keep less number of employees pay them more salary. That means the non-interest expenses are relatively higher, but still the profitability or assets is increasing for them, total asset generation for the banks is better. So, that is why there are many scenarios, but generally always we should see that, the number of employees what the commercial banks are basically hiring.

That should depends upon the requirement and as well as the productivity and really the employees are more productive then be the less number of employees the total amount of assets can be enhanced or the productivity of the capitals also can be enhanced. Another measure we have average personal expenses.

$$Average\ Personal\ Expenses = \frac{Personal\ Expenses}{Number\ of\ Full\ Time\ Employees}$$

The average personal expenses measure the average cost of an employee when salaries or benefits are recognized. How much cost the bank is incurring for employee that basically is considered through the average personal expenses.

And always the bank ensures that bank always feels that this particular ratio should be low that means they can minimize the cost. Loan for employees and how much loan has been sanctioned or loan has been given against this average or the number of total full time employees what the commercial banks have. The loans divided by the number of full time employees that also is used as a measure of the loan productivity.

That means how the employees are able to create the loan and fulfilling all those loan giving conditions or credit appraisal conditions what are the commercial banks are fixed. The net income for employee it is a net income upon the total number of full time employees, which is basically a measure of the profitability of the bank's workforce, how much profit the bank is able to generate for employee.

If it is a higher that means, obviously, we can say that the net income is increasing and the number of employees will be decreasing or maybe lesser less with the less employee, the bank is able to generate more income. So, because of that, this is also a direct impact which the total performance of the productivity of the commercial banks. So, these are the different measures for the productivity.

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Then, after that if you see there are many other emerging issues. Nowadays we are facing whenever we are trying to see that what are those other exogenous factors which are really related to the performance of the commercial banks. So, it can be bank capital, it can be bank risk, it can be regulations because the regulations nowadays are playing a very significant role, because the operations of the commercial banks are highly regulated. As already you know that why it is regulated we have discussed that.

Because the banking sector is not confined to a particular segment. The banking sector has a significant role for the development of the aggregate economy where the other different type of stakeholders are involved from poor to rich and to the richest. All are a party to that and the total aggregate savings in the economy is circulated through that. So because of that the regulatory cost and regulations are quite important.

And sometimes the regulations are so effective, so costlier, that the profitability may be adversely affected, but still, the regulation is important. The reason is that it basically helps to get rid of any kind of market failure in that particular system. Than monetary policy, if there is a policy change, change in the interest rates in the market, the instruments are changing, then obviously, it will have impact on the bank credit channels. And if the bank loans and credit channels gets affected, then it will also have a kind of impact on the profitability of the commercial bank.

Then there is economic uncertainty, if there is any kind of fluctuations in the economy happens, there is any kind of policy changes which have distorted the market because of certain kind of reasons, or there is some kind of financial crisis which have occurred in the other economic because the markets are integrated, financial markets are highly integrated. In that sense also, the commercial banks in a domestic economy gets affected. So, these are the different research's or issues or emerging issues that people are trying to explore that how these kind of dimensions are really also playing the role for the determination of the bank profitability in a practical sense. So, this is about the different other issues.

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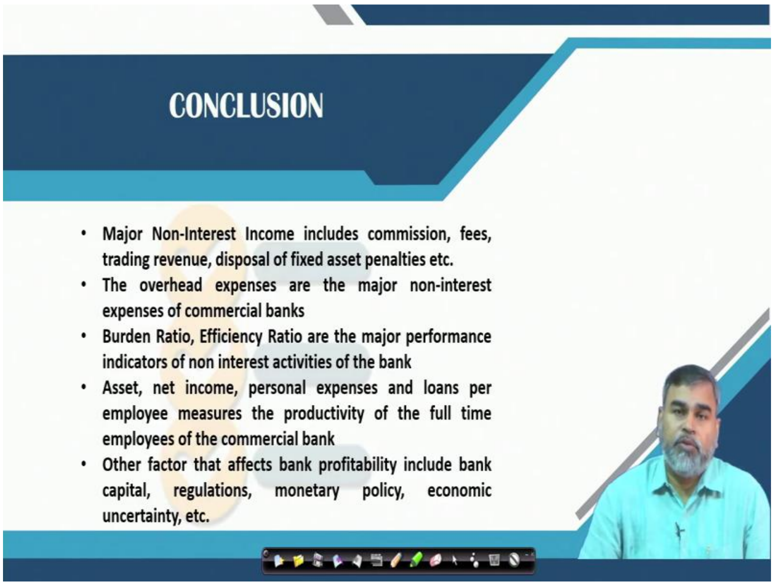

Coming to the conclusion, if you see that what we have seen that the non-interest, major non-interest income includes the commission's, fees, trading revenue, disposal of fixed assets, penalties, etcetera. The overhead expenses are the major non-interest expenses of the commercial bank. Burden ratio, efficiency ratio are the major performance indicators of non-interest activities of the commercial bank. Asset, net income, personal expenses and loan per employee measure the profitability of the full time employees of the commercial banks or we can say that these are the productivity measures but which have the impact on the indirect or direct impact on the profitability.

Then the other factors which may affect the profitability of the commercial banks are the bank capital, because bank capital is a measure of stability, regulations, because regulatory cost is also playing the role, change in the interest rates which is part of the monetary policy which have the impact on the bank credit and that is why the profitability gets affected. Then the uncertainty both in the economic uncertainty both in the domestic market and as well as the international market.

They are also playing a very significant role in terms of the enhancement of the profitability or the deterioration of the profitability of the commercial bank in any of the domestic economies.

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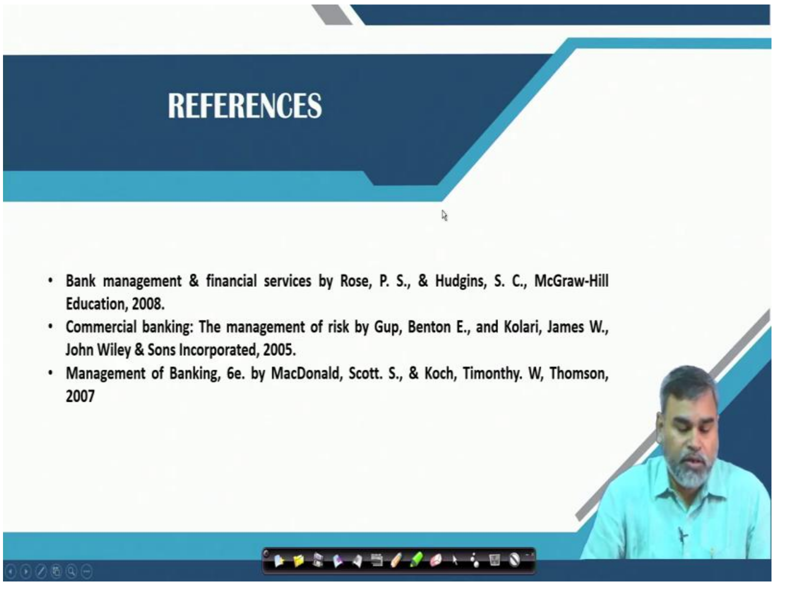

So, these are the references you can go through for a better understanding or the detailed discussion on this. And next class we will be discussing about the other dimensions of the performance which are in the practical sense used by the commercial banks. Thank you.