Strategic Management for Competitive Advantage
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Lecture 21
Operating and Financial Analysis

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Welcome to the course Strategic Management for competitive advantage. In the last class, we have covered portfolio analysis and display matrix. Today, we will be covering the operating and financial analysis; it is a part of the multi-business strategy. So, in this we will be talking about the display matrix as we have talked about the BCG matrix, General Electric's stoplight matrix, then Arthur D Little's matrix, Shell's directional matrix. These matrixes give you one perspective. Now, while taking decisions you must take the viewpoint of the financial analysis. So, we will be covering operating and financial analysis in this lecture.

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So, the concepts that will cover the financial analysis are the Techniques of Strategic Financial Analysis, then Financial Ratio Analysis, then it will be Return on Sales and Investment matrix which is similar to the BCG matrix, market Dominance and Capital Intensity Matrix. Then, we will be talking about some operating analysis that is the Pareto Analysis of inventory items and the Analysis of Materials and Production and Sales.

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To start with, we will first cover the profitability analysis; all of you know that in financial analysis there are four groups of ratio analysis. One is the profitability analysis, then the activity ratio analysis, and then we will be covering the liquidity ratio analysis and market value ratio analysis. Some of these you might be aware of. So, what are this profitability and ratio analysis, and what do you actually do with this ratio analysis?

In fact, there are two purposes, one is first you develop the ratio, and you compare it with your past performance and draw a trend. With that trend, you can talk about future performance, whether it is better performance or performance has deteriorated. So, with that change, you can make out. This is one use. Another use you can do with your ratio, present ratios, you compare it with the industry average, or better you compare it with your leading competitors, then you can know that whether your performance is good enough or you have to improve, so, that will give you the real-life comparisons.

However, here difficulty is that it is very hard to get your competitors' performance in most of the ratios; you may be getting a few ratios but most of the things you will not be getting. Now, coming to the profitability ratio. We all know these are some of the profitability ratios that are operated in profit by total income, that is profit before tax divided by revenue - that is operating profit. Then we also carry out that gross profit potential, what is that? The gross profit potential is revenue minus the cost of goods sold divided by revenue. So, that will give you the gross profit total income.

Then there is net profit by total income, which is the net profit margin that ultimately you will look for. The gross return on investment, the net return on investment, that is your revenue minus total cost, divided by your investment, that is the net return, and net return is after tax, and gross return is the total gross revenue, gross revenue minus total cost divided by investment. So, different purposes we use for all these ratios to check your own company's performance.

Then another two ratios these two are very important - one is the return on capital employed ROA or ROC. We talked about that net income divided by capital employed. The other two are ROS and ROA. ROA is the return on sales and ROA is the return on assets, these two are very important. In addition, what does ROS indicate? ROS indicates that for a multi-product firm if you have many products, then ROA will indicate your product mix efficiency or effectiveness and how good is your product mix. Suppose your ROS (return on sales) is low, then what can be the reasons? One reason maybe that your quality of the products is bad and you need to improve on quality part. But more than that it indicates that your product mix is not optimal means you have too many products which are in a declining stage or which have low value or products which are not giving you much profitability.

So, low-value products are more, and your high-value products' sales are less, so you have a problem with your product mix. So, your product mix is sub-optimal. So, you concentrate on having more high-value or high-profit products than less or low-value products. So, this is the ROS. ROA (return on assets) - what does it indicate? It indicates the utilisation of your assets - whether your assets are utilized optimally or it is being utilised sub-optimally.

If the ROA value is less, that means what? This means you are not utilizing your assets fully - that it may be underutilised or it may be utilised fully, but you are producing, utilising assets more for the less valuable products, not the high-value products, your product mix maybe having a few large value items products and many low-value item products. So, you need to improve this utilization of your assets in a more optimal way. So, it does indicate for the multi-product firms very important information.

Now comes the profitability ratio, which is so important because the profit of an organisation is the reflection of its efficiency, effectiveness or how well the organizations are being managed. It talks about your strategy and whether it is a successful success strategy or not. It talks about your decisions, whether the decisions are correct or not. It talks about your corporate strategy, the operational strategy, the functional strategy, the products, or the market of your choices means as a whole, it reflects how good the organization's is being managed, that is why profitability ratio is very important. So, this is the profitability ratio we have talked about.

Now, next is the activity ratio, what is the activity ratio? One of the activity ratios is asset turnover, what is that? That is revenue earned divided by total assets, which means what? How many of your assets, and how many times can you generate the revenue? Suppose your revenue is 1000 crore and the total asset is 500 crores. So, the revenue by total assets revenue is the say annual revenue. So, how many times we employ those asset assets, how many times you can create that revenue that means it shows the efficiency of your assets, your asset utilization, and how efficiently you are utilising your assets. So, a higher asset turnover ratio means you are more efficient in utilizing the total asset, this is called one of the activities ratios.

Another activity ratio is inventory turnover, the turnover ratio that is here is revenue by the inventory of finished goods. So, how many times is your inventory of finished goods say 500 crores and revenue may say 2000 crore? So, your inventory turnover says four, revenue by inventory. So, that shows how efficiently you are utilizing your stock or inventory. So, lowering the inventory, and lowering the stock, will increase your inventory turnover times.

Similarly, another is the receivable turnover days, it is expressed in days like annual credit when you are selling and all to dealers and all you give some credit. So, annual credit sales are divided by accounts receivable. So, if it is high means that you are getting your accounts receivable very fast, so it should be actually at an optimum level as per the industry standard, different industry has different standards for this receivable turnover. So, again too short a receivable turnover is again not very good, because it shows that your credit sales are low and all, so it should be as per the optimum level as indicated in that different industry, these are some activity ratios.

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Another important ratio is the liquidity ratio, what is the liquidity ratio? What does the Liquidity ratio indicate? It indicates the obligations of the company and how fast a company can meet its short-term obligations. The sum of the liquidity ratio is the debt-equity ratio. Like how much debt you will get from the market and your equity, that ratio. Actually, you cannot borrow from the market more than your net worth, there are some companies act, and the rules and government rules are there that if there is some specified limit say you cannot borrow more than your net worth, so limits are there, and you have to do with that borrowing and all. We have to do it based on that.

Another important liquidity ratio is the current ratio, a current ratio we have talked about it in the last class. So, what is the current ratio? The current ratio is current asset by current liability. We have talked about it. So, it indicates what should be the limit, there must be some industry averages, actually, this current ratio are different for a different industry. For say, the manufacturing industry's current ratios should be suggested as 2 to 3 to 1.

So, how do you maintain this, what does the high current ratio indicates? A high current ratio indicates that you are having high current assets and that means your working capital requirement is more, so that means you are inefficiently utilising your working capital, which is scope for improvement.

So, how do you reduce this current ratio to the level the prescribed or the industry average level? You have to reduce your current assets, and one of the current assets' main components is inventory - that is the stock. So, if you reduce the inventory, then your current liabilities will also come down, stock level when it comes down to your creditors and all. So, this way you can control that current ratio.

Another is called the quick ratio. The quick ratio is the current ratio minus inventory divided by current liabilities, it is a better indicator of your industry as if you see in inventory, the C Class items are low-value items and their turnover is much faster than the high-value items. So, the quick ratio also indicates what the management policy toward inventory is. So, there is scope for improvement. So, this indicates the inventory policies also. So, this is the quick ratio.

Then we will come to the market valuation ratio, what is this market valuation ratio? Sometimes when some companies borrow it from the listed companies, they have borrowed money from the market they have the shareholders. So, market valuations ratios are such as the return on equity earnings per share, then price-earnings ratio, dividend payout ratio, i.e. dividend per share divided by earnings per share after tax, what does it indicate? Market valuation ratio indicates that when you are borrowing money from the market, how the shareholders, how the market perceives the company, and how they look at the company, it shows the reflections of the market about that company.

So, these are the market valuation ratios, and all these ratios give you fairly good indicators of how your performance - financial performance is going on. So, as I have told you in previous lectures, the ratio alone is not sufficient. In this ratio, you have to look at the total context with the balance sheet with the profit and loss account along with other tools and techniques like display matrix etc. Only then can you take a holistic view of where and how you will go about it, these are the financial ratios.

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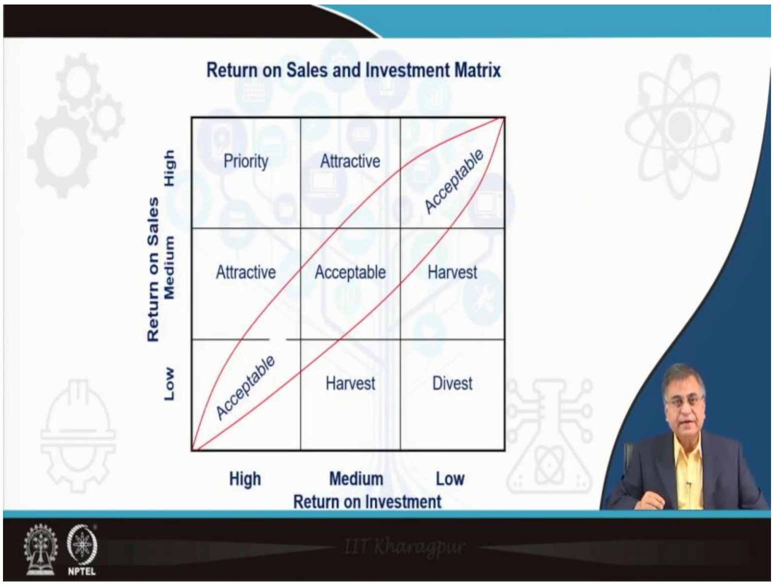

Next, the financial analysis is another analysis one can do. This is similar to that display matrix; this is another display matrix. Here are some consultants, some strategies use the return on investment of the organisation and the return on sales here you divide it into a three-by-three matrix. So, if the return on investment is high, medium, or low, similarly, the return on sales is low, medium and high. So, now for an organization if you are an insider these data will be readily available to you, and you can develop such a matrix and you can analyse and can give it to the higher authorities, usually the consultants and all those who have the access for any company data, they generally do this like now.

Suppose your return on investment is high and your return on sales is high, what is it? It is just like the star business or products, your Star products or business. So, these businesses or products will be the priority. Therefore, high return investment and return on sales are medium, so these are attractive. Similarly, return on investments are medium and return on sales are high these are attractive, and these zones, the upper line and the lower line between these zones are called acceptable.

So, these are mostly the medium-medium and all, anything below this line is unacceptable, why? Say low return on investment, low return on sales, so you divest - those are the dog products. So here also medium, low, you harvest, here also low and medium, you harvest, so, these below the line are non-acceptable region, and above this line, it is the attractive businesses, and this is priority businesses, and between this, these are acceptable. So, in the same way you can take decisions based on this financial analysis.

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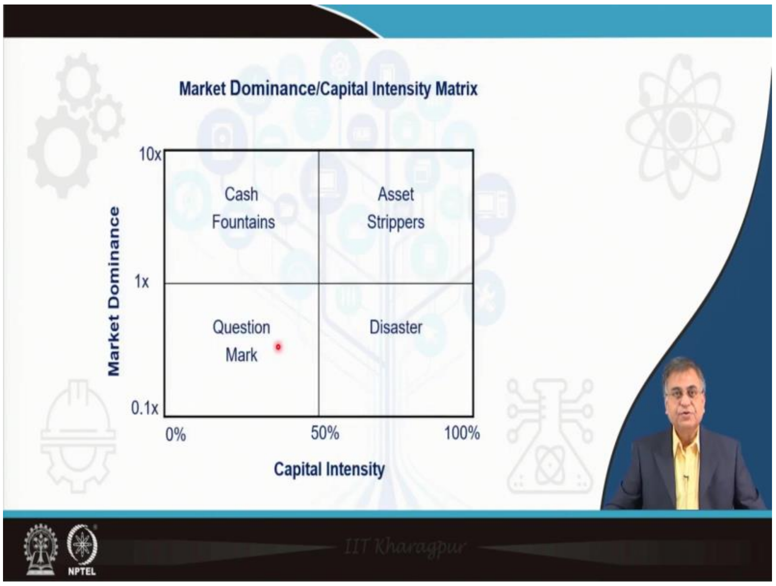

Similarly, you can also say this is another two-by-two matrix. Here is what, market dominance versus capital intensity for producing that product. So, what is market dominance? It is nothing but your market share, the organizations are holding the market share, the relative market share - if it is high you are having high market dominance, and capital intensity means that your asset requirement, your capital asset, a capital requirement like high say 100 per cent capital intensity means what? It means that to earn 100 rupees, you have to engage or deploy the capital of hundreds similar, so it is not a good proposition.

So, high capital intensity means your business will require huge capital. It will be stretched, and if your business requires low capital say these are low intensity, low capital and your market dominance, relative market share is high that means it is a star business sort of thing. These are called cash fountains; these products are cash fountains.

When your capital intensity is low, market dominance is high. When your capital intensity, the capital requirement for the business or the product is low, and the market dominance is low, these are the question marks as you do not have. Market dominance is low means your market share is low that means you do not generate much cash and you require cash to improve your market dominance. So, you need cash here. So, these are the question marks whether you will inject the cash.

Similarly, this is a disaster-like situation. Here your capital intensity is high, and market dominance is low, which means you require huge capital, the huge fund for your survival and the dominance is also low which means you cannot generate funds. So, to go high, you require much more funds. So, these are the dog businesses. So, this is a disaster, you should divest this and when capital intensity is high, but market dominance is also high, to grow further you require huge capital. So, it requires you to inject it, so this is called Cash strippers.

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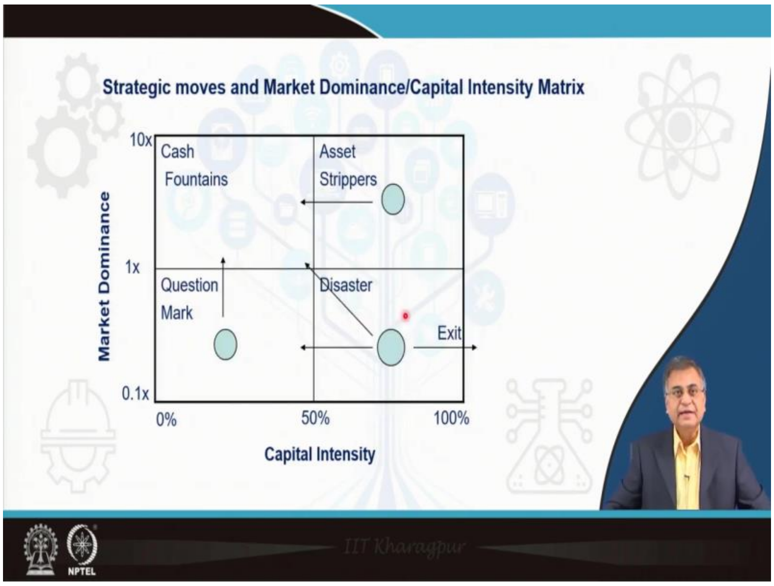

So, it goes like strategic move and market dominance capital intensity matrix, this is where it moves. Say, the question marks should require you to inject capital here to go into the cash foundation or to become a star or cash foundation. Asset strippers, it has a high market share, so you try to improve its capacity utilisation.

So, for capital intensity, the efforts should be to reduce that capital intensity. You push these assets strippers to this quadrant which means low capital intensity and how is that possible? For that you have to improve the quality of the product, you have to improve the capacity utilization, and you have to have a good management system. All these will help you to put it in the low capital intensity. So then only it can be profitable otherwise, you divest these, these are assets strippers and disasters are generally you exit unless you can try to improve its capital intensity means to reduce its capital intensity, otherwise, you exit this way. These are some of the financial analyses you can do it.

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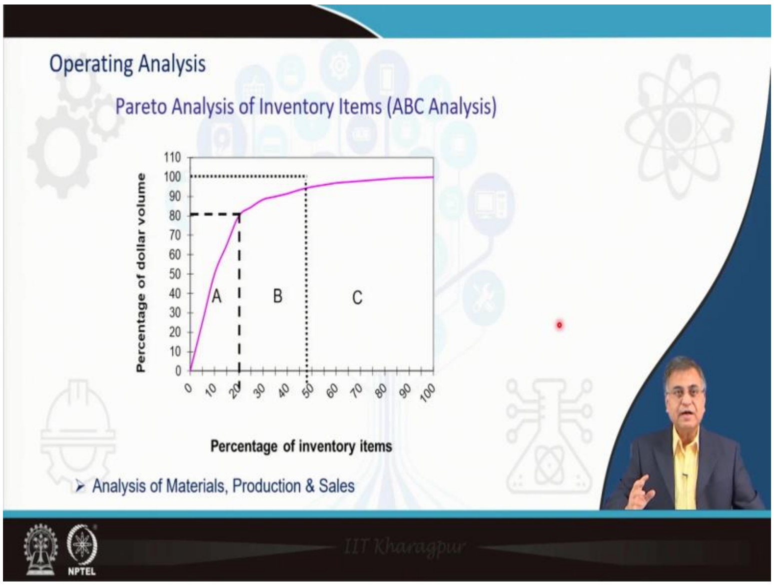

Now, coming to the financial analysis. Also, you do operating analysis, what is operating analysis? There are many materials analyses, inventory analyses, production analyses, sales analyses, and everything you can do so that you get a comprehensive picture before taking a strategic move. So, you must know this one of the operating analyses, these are all indicative. I am showing this is called Pareto analysis of inventory items, this is also known as ABC analysis.

So, you must be familiar with this Pareto analysis, this is also known as the 80-20 rule, what is it? If you go through the inventory lists of any organization, you will find that in the inventory items there may be 1000s of inventory items. Say this x-axis is the percentage of inventory items, and the y-axis is the percentage of that dollar volume or the cost, the price. These are the value of the total of the items. You will find that 20 per cent of the items cost 80 per cent value or total value, it there that accounts for 20 per cent of the items account for 80 per cent of the total value of the items and the rest 80 per cent of the item accounts for only 20 per cent value of the item.

So, usually, say here this 20% are called high value or the A items like there is only 20 per cent of items that will consume your 80 per cent of the total value of the item. Say 20 to 50%, the rest 30 per cent of the item consumes only about 15 per cent of your value of the items, and the rest 50 per cent of these are called C items only accounts for only 5 per cent of the value. So, this is called ABC, this way you identify these items, these are called ABC analysis or the one economist called the validity of Pareto, he has observed this 80-20 rules in economic rule, so it is known as that.

Then similarly, you can also do strategies analysis of materials say monthly consumption of materials, weekly consumption of materials or the yearly consumption of materials and you can analyze how it is going. Similarly, you can do the productions, weekly production, monthly production, quarterly production, annual productions, then you see how it is going on to find out that trend, and you establish a trend, and you find it out, similarly, you can do it for the sales.

So, these are all useful for the operating analysis, this operating analysis requests for your short-term analysis to find out your net cash flow or your uses of the fund - all those things will be helpful. And also, it will be required to do the long-term analysis like your requirement of fund for the long term and use of sources of fund for the long term, uses a fund for the long term, you can derive all these.

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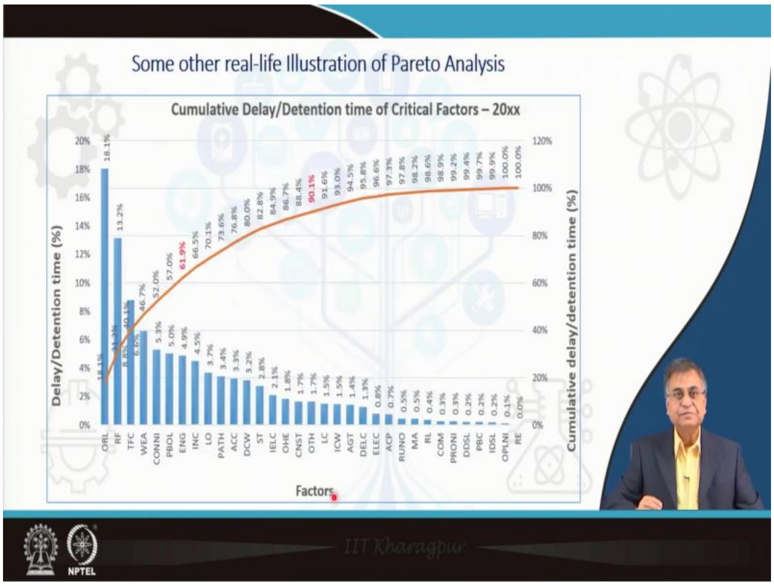

Now, coming to some other real-life illustrations of Pareto analysis, the ABC analysis, this is a delay factor, cumulative delayed, detention time versus this. You can see these are the factors for that causing that delay. So, if you see, these only 5 or 6 factors that constitute say here 62 per cent and only these say 7-8 factors, these consume your 90 per cent of the delay and rest 10 per cent delays are caused by the other factor.

So, if you concentrate on these A items, say only these few 5 or 6 factors, if you concentrate on that, you can improve the system's efficiency more substantially. So, instead of concentrating your all these small-small things, if you concentrate on a few factors, then you can improve on how the delay can be reduced. Similarly, in A item, if you look at the A items, you can concentrate on that, you can reduce your inventory value, instead of C items, C items there are too many, but they consume only 5 to 10 per cent. So, it is not worth to concentrate your energy to focus on that.

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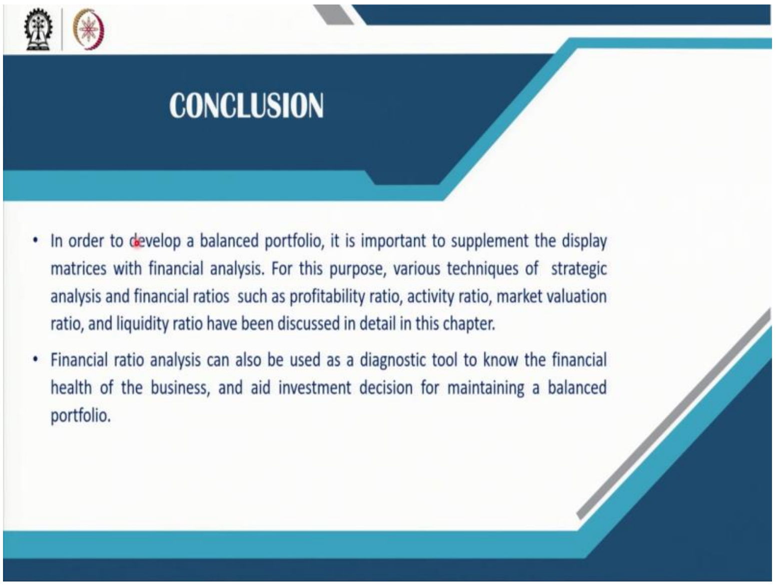

Now, to summarize today's lecture, what we have discussed about developing a balanced portfolio for that it is important to supplement the display matrices that we have discussed in the previous lecture with the financial analysis. For this we have discussed about various techniques of strategic analysis and financial ratios, we have talked about profitability ratio, activity ratio, market valuation ratio and liquidity ratio in this class. Also, ratio analysis can be used as a diagnostic tool to know the financial health, and organization's health of your business and it will aid investment decisions for maintaining a balanced portfolio.

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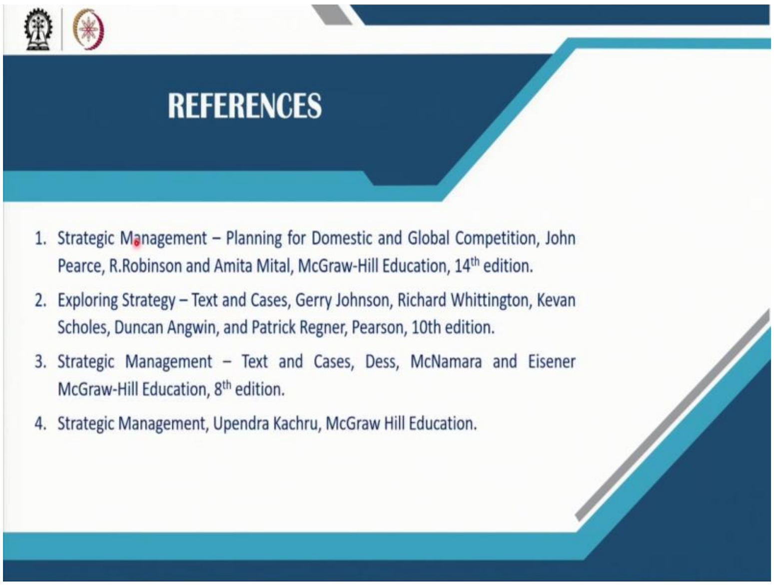

Then for the references you can go through these are the books and you can go through these and you can enrich yourself. Thank you very much.