Strategic Management for Competitive Advantage
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Lecture - 19
Portfolio Analysis and Display Matrices

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Welcome to the course strategic management for competitive advantage. Today, we will start a new module. In this module, we will study multi-business strategy. So, today first lecture will cover portfolio analysis and display matrices, so let us move.

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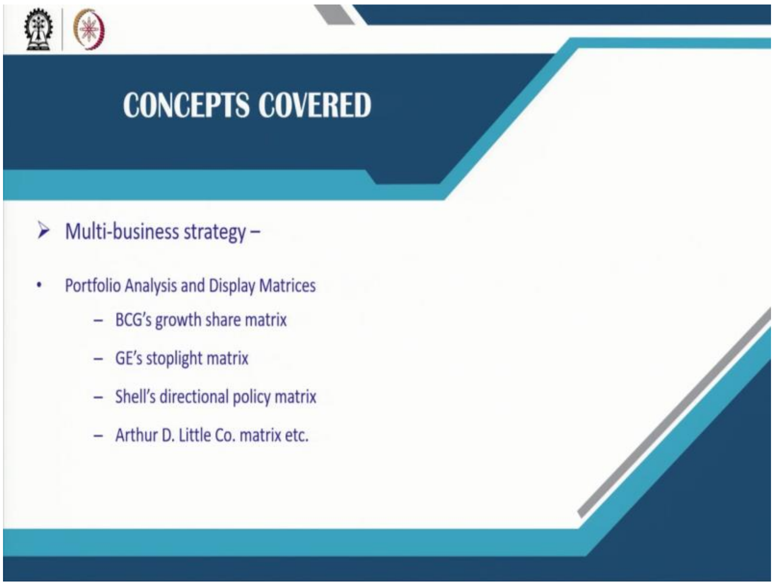

So, in this lecture, we will cover the following concepts. Portfolio analysis and display matrices, as I already told under this, what will we be discussing? We will be discussing the BCGs growth share matrix, GE's stoplight matrix, then shell's directional policy matrix, Arthur D Little company's matrix and some more. So, these will give you the entire gamut of portfolio analysis.

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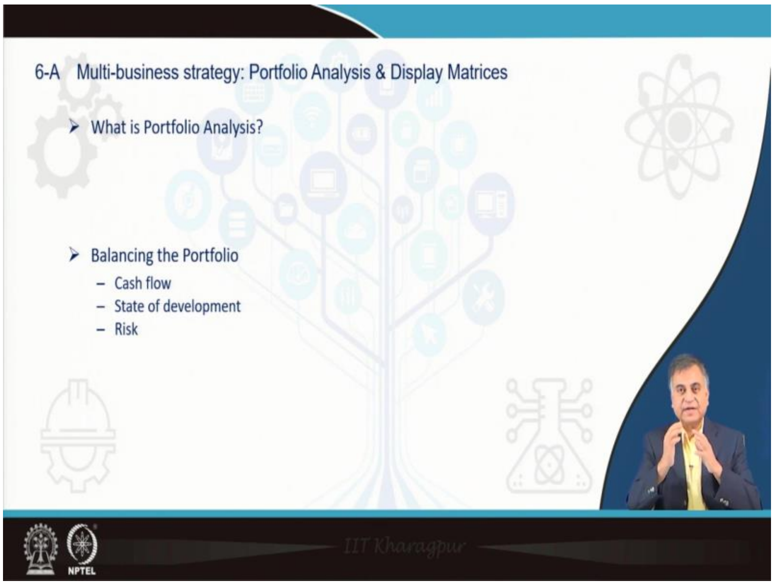

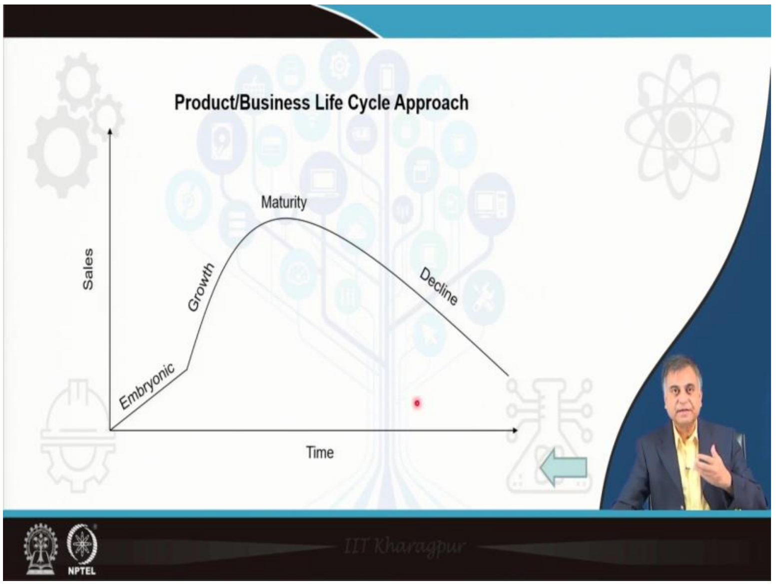

To start with, let us ask the question, what is portfolio analysis, what do you understand by portfolio analysis? Portfolio analysis is a way of allocating organizations' resources optimally to different products or businesses, or markets so that they can fetch maximum returns over a long-term period. So, it is actually useful for multi businesses or for a diversified company.

So, those who have multi businesses or multi-products or multi markets and all these are useful to them. It is basically decided at that top level. However, it can also be employed at different levels in the organisations, but the final decisions are taken at the CEO level.

So, after knowing what portfolio analysis is, then next is, what portfolio analysis does. Basically, optimally it allocates the resources to different businesses. So, how does it balance the portfolio? Basically, in three ways, it balances, it balances the net cash flow of the business requirement, cash requirements for different businesses are different at different stages that we will be discussing for the state of development and risk.

So, what is it? Different businesses have different cash flow requirements at different stages for these just remember this one, we have seen this graph in the previous lecture that the growth rate will be much higher when your businesses are in maturity, you do not require that much cash, it is a cash generation. Then in decline, you cannot generate so much cash these are the business cycles that all of us know.

So, what happens like so for this? So, different businesses require different amounts of cash, requirements of caches differ based on the state of development of that business. Because every business has a growth stage, maturity stage, and decline stage, cash requirements also differ in all these. So, if you have a diversified business, suppose if you have, say single business and that business might go from maturity to decline stage.

So, then what will you do? When you are in the decline stage, if you go for another new product or a new business at that time, you will be losing time, so you have to plan your diversification in such a way that the cash requirement in one business is supplemented by the cash generations of the other businesses.

Say take the case of say Reliance Jio; Reliance Jio is in a growth stage. So, it requires huge investment, and how do they get the investment? Reliance oil and gas in a mature stage, and there are cash generators, that supplement. So, you have to balance the portfolio like this.

Similarly, a risk portfolio also balances the risk by spreading the risk of different investments. Suppose, even if you have one business also, you can grow internationally, so, that your risk is reduced because the economic cycle in one country may differ from the other countries.

So, your risk for single business and also some businesses are cyclic like steel or the cement, that some of the businesses with the economic growth of the country increases but some businesses are having constant demand, constant profit, like your consumer goods and your bread, sugar, fast-moving consumer goods are having a steady demand all throughout the year and it gives you steady profitability. So, you balance the portfolio based on respect to cash flow, the state of development of your business and the spreading of the risk.

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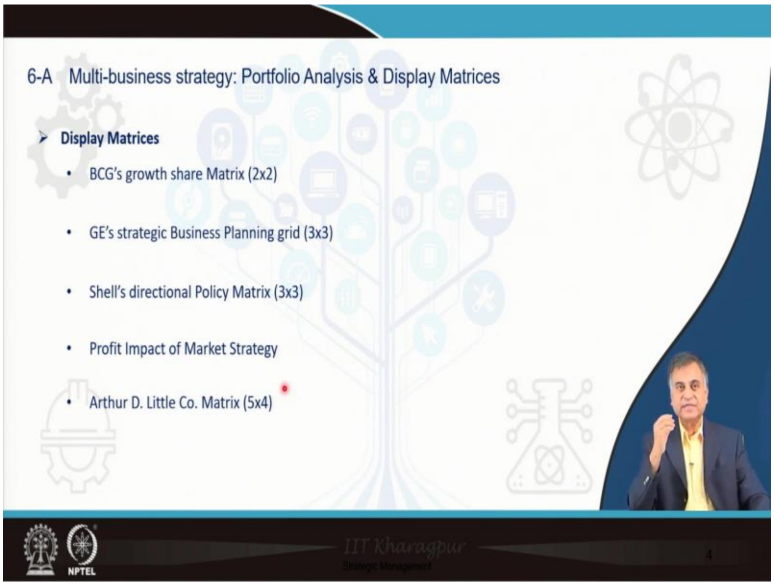

Now, display matrices, what are display matrices? It is a pictorial representation of how your cash and the sources of investment, and the uses of investment are done, especially the BCG matrix as we will be talking about it. Display matrices there is the pioneering work was the BCG growth-share matrix. BCG is Boston Consultancy Group, they developed a matrix, then it was a pioneering work in the late 1970s, then it was followed by other consultants, and other companies also then followed it in their context.

So, next came the General Electric strategic business planning grid. That is a 3 by 3 matrix. Then we will also discuss Shell's directional policy matrix, which is also similar to General Electric GE's strategic business planning grid. Then we will discuss Profit Impact of Market Strategy. We will also discuss Arthur D little company's matrix, which is a 5 by 4 matrix.

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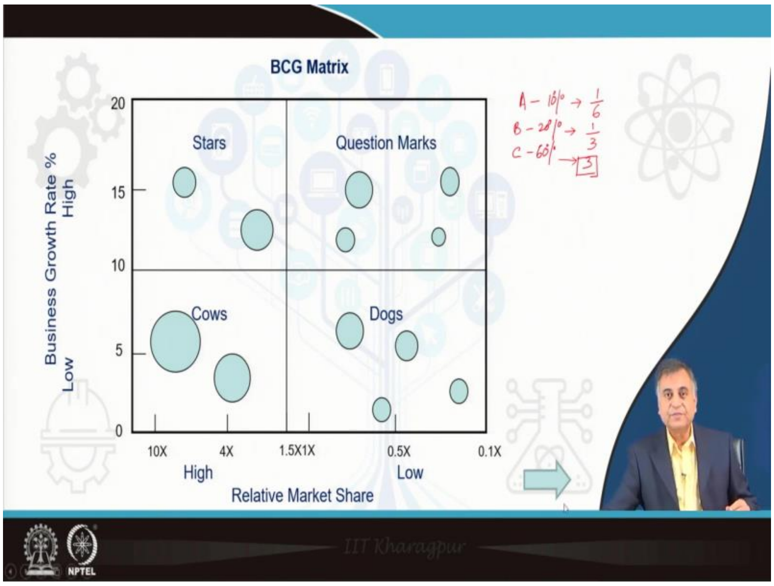
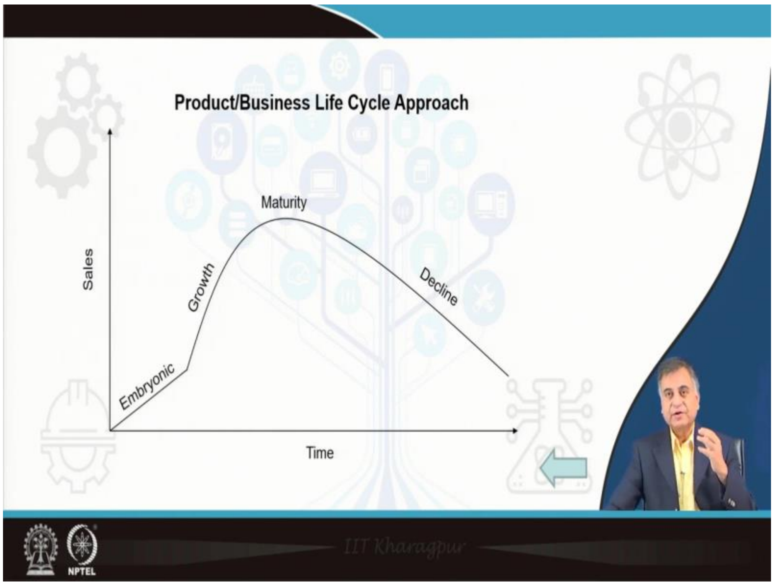




As I told you, the BCG matrix is the pioneering work that Boston Consultancy Group developed. So, what is this matrix? I will explain to you, this is a 2 by 2 matrix, the x-axis is the relative market share, and the y-axis is the business growth rate of that industry. So, what is relative market share? It shows the competitive position of the organization. Now, there are say this is high relative market share, low relative market share, this is business growth rate low and high, and it is divided into four quadrant 2 by 2 matrix.

Now, what is the relative market share, we have to understand this and these bubbles represent a business, and the size of the bubble indicates the volume or the strength of the business, like the volume of it, maybe of sales or the market share, or maybe of the size of the assets. Now, relative market share first, we will talk about what is relative. This, you can see, is a logarithm scale, and this is a normal scale. So, what is this relative market share, how do you define relative market share?

Relative market share is, suppose there may be three companies A, B, and C. A's market share is 10 per cent, B's market share is 20 per cent, C's market share is 60 per cent, and the rest are fragmented companies. But always you take for relative market share three top companies, three top competitors. Now, what would be the relative market shares of A, you always compare the relative market share against the leading competitors.

Who are the leading competitors in this market? C is the leading competitor. So, what should be the relative market shares of A? Relative market share of A will be one-sixth, it is one-sixth of the leading competitor, and the leading competitor is C which holds 60 per cent of the market. What is the market share of B? Market shares a B will be 20 by 60, it is one third, because C is the leading competitor of B, so, it is one third market share.

Now, tell me, what should be the relative market shares of C? The leading competitor of C is B, so, it should be 60 by 20. So, the relative market share of C is three, because the leading competitor of C is B, against B, it is three times more. So, the leading competitors of the market shares of C is three. So, that is why you will find it is on a logarithm scale.

Now, based on this, what do you do? You place your businesses in which quadrants they fall based on your relative market share and business growth rate of that industry, you place your different businesses, products etc. Now, if you see this quadrant, what is this quadrant here? This quadrant is relative market shares is high, high relative market shares and high business growth rate.

So, the business which falls into these are called Star business or Star products, because relative market share is high, higher market share means good you generate more revenue, and generating more revenue leads to profitable business implying higher business growth. So, they are the star businesses, but the business growth rate is high means what? The business is in the growth stage.

So, if you see it, the business is in the growth stage, what does it require? It requires huge investment like you have to acquire the plant, machinery, sales and advertising costs etc. But it may not be generating so much of resources and much of your revenue to sustain. So, it may require some extra money, these are the star businesses you see.

Now, if you see the cows, these businesses which fall here have high relative market share, but low business growth rates. So, which is this business? This business is actually seen here in the mature stage because here in the maturity state, you have a high market share, but your business growth rate is very low. It is mature if growth is not there. So, it is a cash generation, it generates cash, and this cash can be given to supplement other businesses like growth or decline.

And what is that we have talked about this, this business life or product lifecycle before and then maturity stage you do not need much investment because you operate in the low-cost efficient processes. So, this is the called businesses which fall in this quadrant are called the cash cow, they are the generators of the fund, and these funds can be generalised to other businesses.

Now, is very interesting to see this quadrant, what is this? Relative market share is low, but the business growth rate is high. So, businesses which fall in this quadrant are called question marks. Why this is so, here their relative market shares are low, and these businesses low to push it to the high market share, you got to put it to high market share.

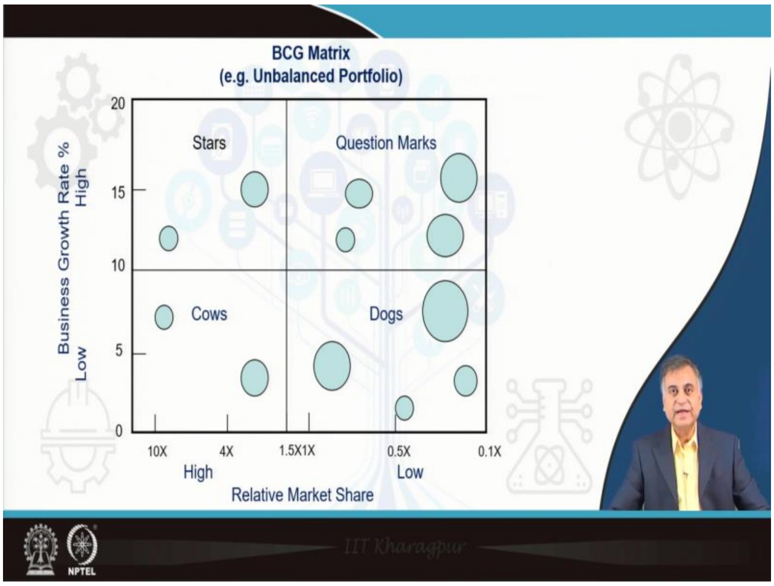
Because when your market share is low means, you are not producing so much Cash, and your sales volumes are low, so you are not producing profitability. You cannot sustain your businesses unless you push some of the businesses to the star region to push it to the star region, say high relative market share, what do you need? You need investment to capture the market, where will that come from? It generally comes from the cash cows.

So, there may be many businesses in this. So, you judiciously select which business you want to promote and push it to the star so that it has the capability to go to the star because it requires investment. So, investments and capital are limited. So, you cannot give it to all the businesses, so you choose so that those businesses become tomorrow's stars.

So, these are called question marks, this is also known as a prodigal child, also known as Wildcat. And some of the businesses you think you should not invest in those businesses you divest, so you divest those businesses.

So, the question mark businesses either you push them to higher relative market share, or you divest them, these are the two alternatives. Now, if you see the businesses in these coordinates, and quadrants, here, the relative market share is low, and the business growth rate is low, these businesses are called dogs, what are these businesses? These businesses are in the decline phase.

So, in the decline phase, the relative market share is low. So, it cannot generate enough funds and require a huge investment to put these dogs to the high relative market share. So, you try to divest these businesses, you harvest fast means, you squeeze as much as you can from this business, then divest these businesses, this quadrant is called dogs. This is, in a nutshell, what is the rationale behind this BCG matrix.(Refer Slide Time: 21:31)



Now, to further explain, look at this diagram what you can infer from this diagram, is the BCG matrix you have seen in the previous one, and it is a bit different from that, but just study this diagram and tell what you can infer from this, this is an unbalanced portfolio, why it is an unbalanced portfolio? If you see cash cows, these businesses are very small, and only a few businesses and the maximum business these things are in the dogs see the volumes of the businesses in dogs are very high.

Even in the question marks you see, there are high and further should be divested because these market shares of these are very low and these are the very small type of even the star businesses are very small. So, this is an unbalanced portfolio. So, your investment in these must change for the survival of your organisation.

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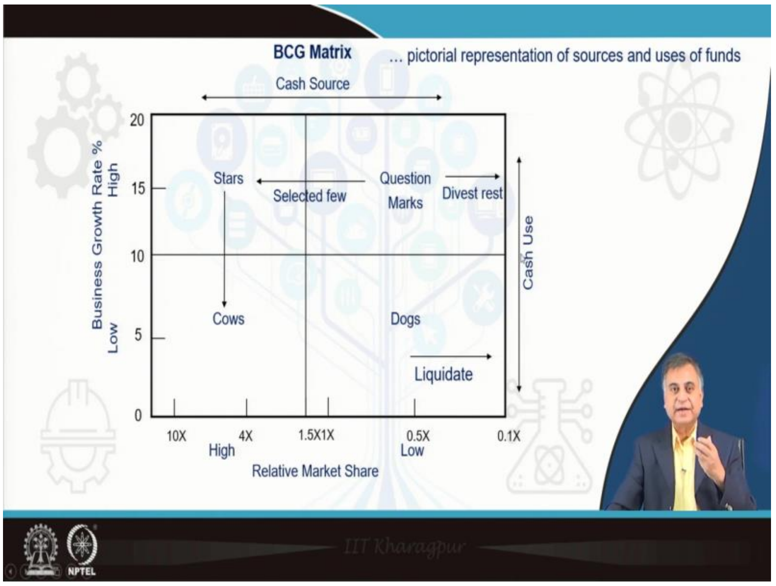

So, next, we go further on this BCG matrix. Yes, as I told you, the BCG matrix is a pictorial representation of sources and uses of funds. So, what are the cash resources and cash uses? Say as we told that, today's star businesses that are high business growth rate and the high relative market will become the cash cows for tomorrow's because your business is in the growth stage, from the growth you will attain the maturity stage, in maturity stage means your business growth will become low. So, you will start today stars will become tomorrow's cows.

Now, dogs, you will generally liquidate other candidates. And question marks, as I told you to select a few which have the potential to become tomorrow's star, and then you divest the rest of the question marks. So, these ways are how best you can use your sources of funds, and the usage of the fund represents that. This, in a nutshell, is the BCG matrix.

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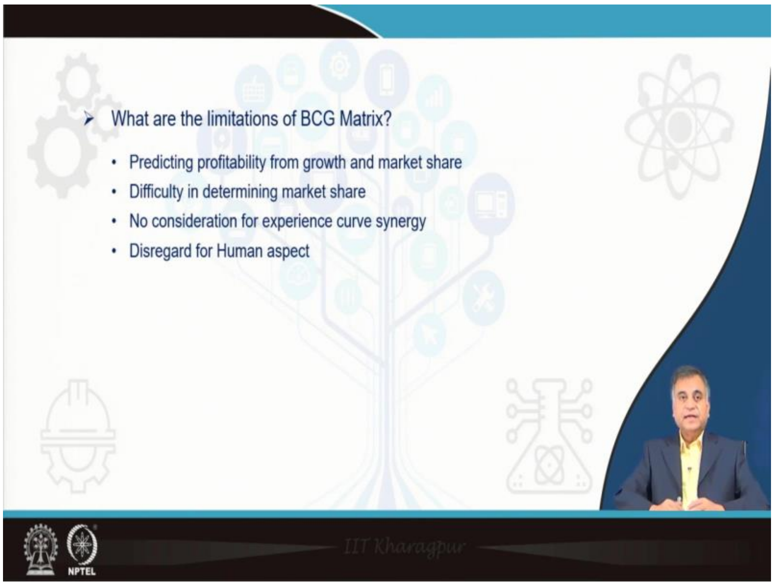

Now, coming further that there are some limitations of BCG matrix, what are the limitations of BCG matrix? You must know that first is predicting profitability from growth and market share. So, what we have seen in the BCG matrix we are linking the profitability of an organization with the relative market shares and the business growth of that sector, but it is very difficult to predict because usually, if you have the greater market share, not necessarily that will give you the profit like even in the niche market, maybe your market shares will be less, but your profitability will be huge.

Another thing is found in some dog businesses if it is cultivated, is nurtured in the right way like if you invest in R&D, you invest in marketing, and you bring out a high-quality product with moderate pricing, then dogs can also become stars, it can also generate above average ROI. So, you cannot predict profitability from growth and market shares alone.

Then another, there is difficulty in determining market shares, like BCG matrix say that your relative market shares, like profitability, depend on your relative market share, but determining the market share is not that easy. Like if I say what the market is, in fact, the market share is also dependent on the way a company defines its business activities and the market.

For example, if you say the market shares of aircraft, it may be all aircraft as a whole, or it may be cargo aeroplanes, it may be passenger aeroplanes, again in passenger aeroplane, it may be small sized aeroplanes like 6 seaters or 10 seaters, it may be a 30-seater aeroplane, it may be 100-seater aeroplane, it may be a 300-seater aeroplane, so different types are there.

Similarly, helicopters may be cargo helicopters, it may be heavy-duty helicopters, it may be military helicopters, it may be helicopters as a whole, so how you define market share depends on that. Also, it may be that market shares may depend on the geographical representations like it may be a global market share, it may be national market share, or it may be regional market share, so there may be differences in how you define market shares.

Now, also the next point is that in many products or businesses, the output is very complex, processes are complex, and output may be semi-finished and directly getting the revenue, from that is a very complex process, so it is very difficult to know the market share for such businesses. Also, there is no consideration for experienced curve synergy, what does it mean? The BCG matrix only says that mechanically where does your business falls, does it fall on quadrant 1, 2, 3, and 4, but it does not look after the experience curve.

Suppose take the case of dog businesses, you just for say dogs are to be liquidated, but it has been found the people who are working in the dog businesses have a good culture of spending. They do not profligate in spending, and they are very cost conscious about the spending, and if that cost-conscious culture is inculcated in the star businesses, question mark businesses, across the whole organisation, then the organisation gets the benefit of it. So, there are no considerations for the experience curve synergy.

And lastly, this is there is a complete disregard for human aspects, like dog businesses you just take you to liquidate, but in real life, it is very difficult to liquidate a business. Those people, managers and the staff of the dog business will resist even that even if you see the cash cow, those managers are will be very reluctant to part their profits to other businesses. So, these are the issues which are generally ignored in the BCG matrix. So, these are the limitations of the BCG matrix.

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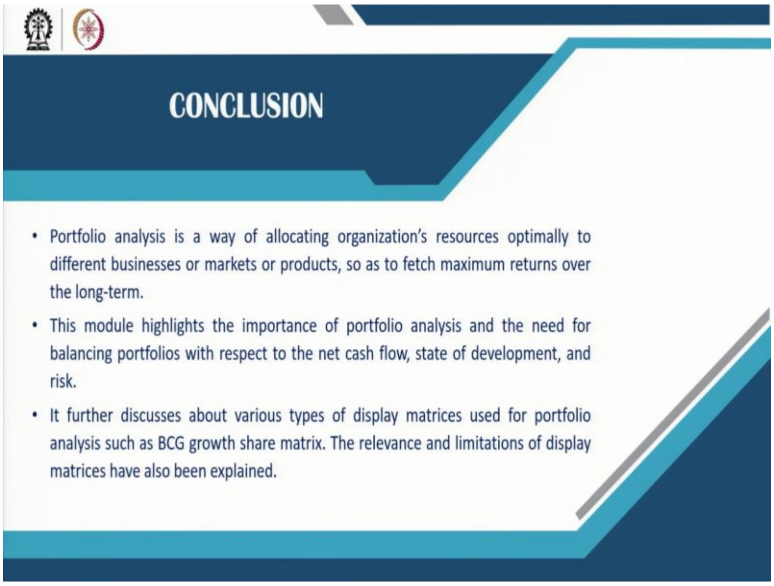

Next, we will summarise what we have discussed in this lecture. In this lecture, we have seen that portfolio analysis which is a way of allocating an organization's resources optimally to different businesses or markets or products, so, as to fetch maximum returns over the long term. Then we also highlight this lecture on the importance of portfolio analysis and the need for balancing the portfolio with respect to net cash flow, state of development, and risk.

Further, we have discussed the various types of display matrices used for portfolio analysis, such as the BCG growth-share matrix, which is a 2 by 2 matrix which has pioneered by the Boston Consultancy Group in the late 1970s. And we have also talked about the relevance and limitation of this BCG matrix. So, this is the summary of today’s discussion.

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Now, these are some of the references you can go to this book and enlarge your knowledge on your multi-business and this display matrices. Next, we will continue with the other display matrices that are available. So, thank you very much for attending.