Lecture – 08
Methods of Project Selection- I

Good morning friends, I welcome you all in this session. In previous session we have seen how to select project in this method, in this session, we will see different methods of selecting projects. So, let us say if you are working in a big organization and your organization is handling different projects then what would be the project screening criteria whenever you take up a project. So, what points you would look at in that project will you take up each and every project that comes to you I do not think so, you will have to have some screening criteria for selecting projects. So, we will look at what are those selection criteria.

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So, you can have different methods ranging from qualitative to quantitative and the screening model should have these points. It should be realism whatever is your screening process to take up a present the process should be a realistic one, it should it should be aligned with the objectives of your organization, constraints of your organization what are the resources available in your organization then only you should take up a project. So, one of the screening criteria is realism then capability.

Let us say you are able to take up a project worth of 100 crore rupees, but can you take a project of having worth 125 crore, if yes take it otherwise you are you should be little flexible. So, there should be flexibility in selection of a project comparison of project should be there of course, whenever you take up a project you need to compare different projects on time the technological requirement and commercial aspects. As I said your organization will not take up all those projects which will come to you would be having certain let us say you will not accept those projects which are having worth less than 2 [FL] or 20 [FL] or whatever is that limit. Flexibility your project is screening criteria should have flexibility for example, if you are taking up a project from Australia and you are also taking up a project from china.

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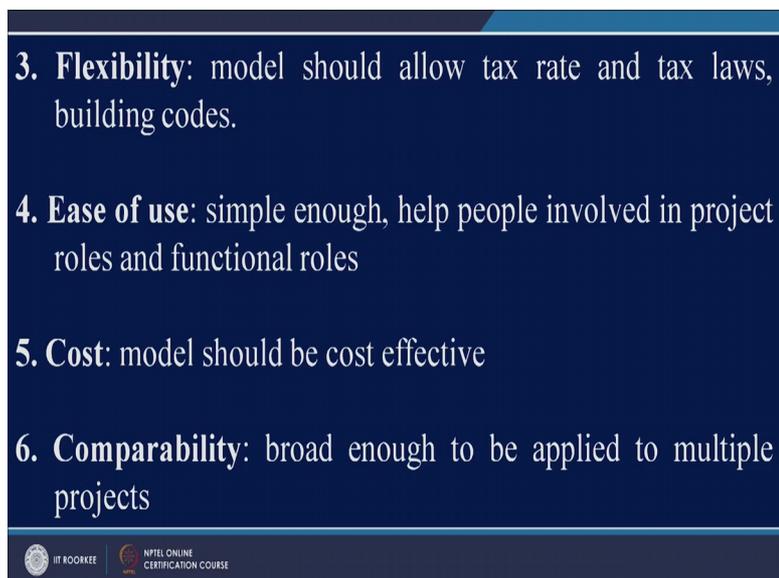
So, do you have flexibility in your model to take care of tax rates, tax loss, building codes if it is a civil related project, then it would ease of use the criteria should be simple it should be easily understandable to the members of the screening team cost whatever screening model you are adopting to screen projects it should be cost effective. And comparability, when I say comparability means it should be applicable to different range of products let us say if your organization is taking a project from construction business then you may have a project from banking sector, you may have projects from insurance sector. So, your project selection criteria should be comparable across these sectors.

Now, we will see different methods of project selection or project evaluation and there are multiple methods will not be discussing all those methods which will see couple of those methods. So, it starts with as I said on a continuum of project selection methods you have got qualitative methods to highly quantitative methods. So, you can have sacred cow is one of the methods. So, if you really want to come up with a new project then experienced people in your organization they will say that you select these project are that project.

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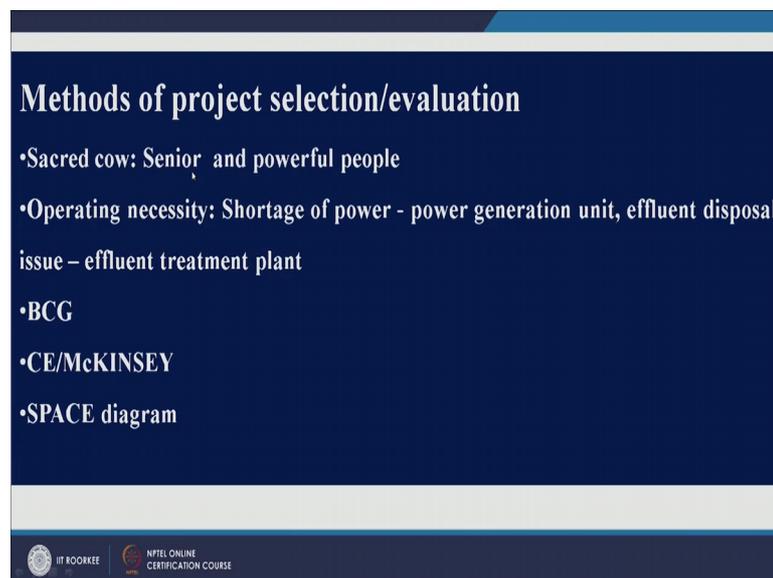
So, senior and the bosses of the organization they would select a new project. Many times you need to come up with a project because of operating necessity. So, let us say your plant is at a location where you do not get much power from state government then there is no option except to go for power generation unit. So, that project you will have to take up. If you are having a chemical plant or any process industry then you need to go for effluent disposal issues you need to have best treatment plant and there are some other methods like Boston consulting group; BCG matrix you have got McKinsey matrix you have got space diagram and there are many more methods which would be discussing in next couple of sessions.

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So, first let us look at what is BCG matrix or Boston consultancy group matrix now from this matrix will help you in identify which kind of strategy you should adopt to a particular type of product and this BCG matrix is for analyzing the existing projects in your portfolio I am not saying that you should go for selection of a new product using Boston consultancy consulting group matrix. However, it will give you an idea where there is a lack in portfolio and you can fulfill that give by coming up with a new product or new project. So, BCG matrix is basically a 2 by 2 matrix it is developed by BCG; USA is the most renowned corporate portfolio analysis tool it has got 4 cells as I said. So, basically there are 2 dimensions you have got what is the relative market share of your organization and what is the growth rate of market to. So, these are 2 dimensions. So, it is a exam is different businesses in its portfolio on the basis of their related market share and industry growth rates.

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In other words it is a comparative analysis of business potential and the evaluation of environment. So, business potential how good you are at what is what is the strength of your project in market and how the market is evaluates evolving. So, according to this matrix businesses could be classified as higher low according to the industry growth rate and relative market share. So, when I say market share it is not the market it is the relative market share of your organization in comparison to the industry leader. So, how to calculate market share a relative market share it strategy strategic business unit sales this year divided by leading competitor's sales this year. So, this will give u relative market share of your organization then you have got market growth rate. So, how would you calculate market growth rate. So, industry sales industries sales this year divided by industry sales last year. So, these are 2 dimensions of BCG matrix you have got relative market share and market growth rate.

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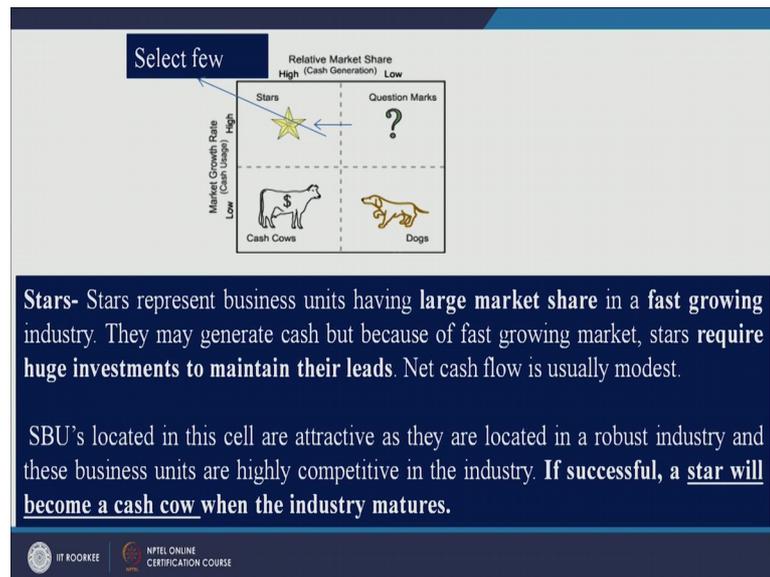
So, this how BCG matrix looks like. So, on x axis you have got relative market share can be high and can be low on y axis you have got market growth rate can be high and can be low. So, in BCG matrix we will have our different projects are different products. So, in this quadrant you have got stars. So, stars are those products are those business units having large market share just see large. So, market share in fast growing industry if your products are here they would be called stars they are you are your market share is relatively high and market growth rate is also high. So, what kind of strategy you should have in these kind of a quadrant yeah, we will see that point little later.

So, as we use located in the cells are attractive as they are located in robust industry and these business units are highly competitive in the industry. So, if successful star stars will become cash house when industry matures because every industry matures after sometime keep in mind. So, if you have got star products after sometime the market growth rate will slow down and those businesses would be generating loss of cash for you and they would be called cash cows.
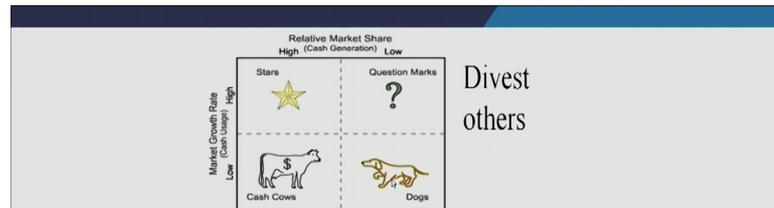
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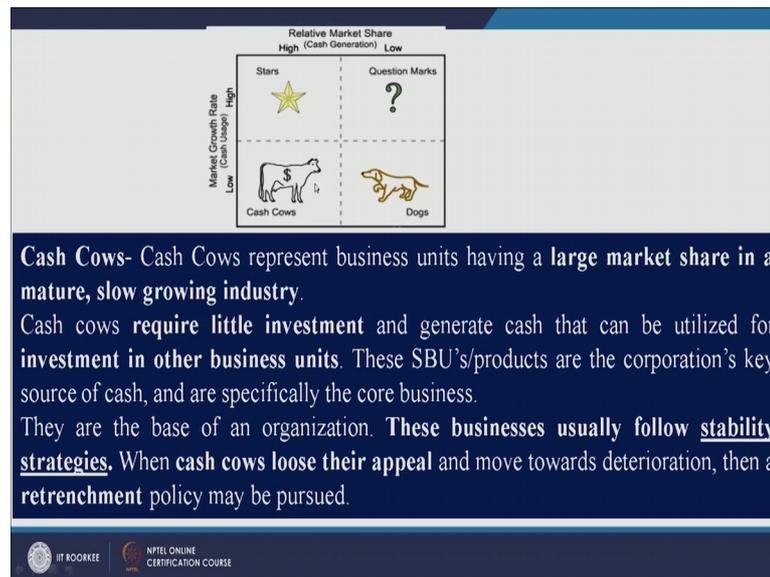
Let us look at this cash quadrant now all the businesses are products which are there in this quadrant would be called cash cows. So, these are the business units having large market share in a mature slow growing industry. So, your market share is still very high, but the market growth is now slow cash cows require little investment and generate cash that can be utilized for investment in other business units. So, these products will generate lots of cash for you and you can invest that cash for some other projects are some other products they are the best of an organization it is always good to have more and more cash cows in your business because they are generating cash.

So, these businesses usually follow stability strategy you have to be stable in the market when cash cows lose their appeal and move towards deterioration the then you need to go for retrenchment polisher retrenchment strategy divestment strategy. So, a product first remains in this quadrant then from here it may go here or here, but if it goes here then it will go in this quadrant where my relative market share is high and market growth rate is low from here the product will go to this quadrant which is dogs quadrant right are the projects and products in this quadrant are called dogs.

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So, let us look at this quadrant question mark now this quadrant is having products which are having very low market share, but market growth rate is very high, so, most of the businesses start in this quadrant. So, these types of SB use require huge amount of cash to maintain or again market share they require attention to determine if the venture can be viable.

So, if you think that these products are these products have good future potential then you should go for expansion strategy if you go for expanding expansion strategy these products will become stars otherwise go for retrenchment strategy. Now most businesses as I said start as question marks s d company tries to enter a high growth market in which there is already a there is already a market share, but if you ignore these products then question marks may become dogs it is suggested that you should not ignore these products or projects. So, if ignore then question marks may become dogs while if huge investment is made of course, they will become stars. So, you need to be very careful with these question marks.

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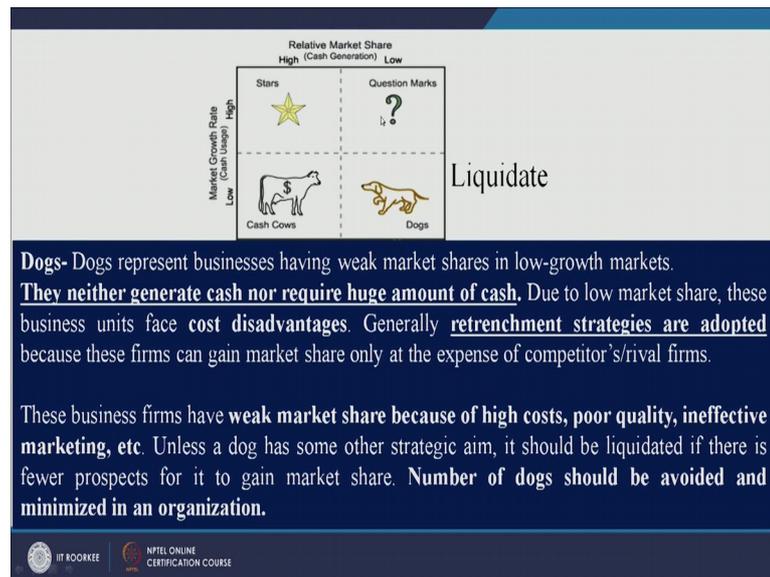
If you look at dogs then I think this is the worst situation for your business your relative market share is low and market growth rate is also low now it is suggested to go for liquidation of liquidation of such kind of products. So, dogs represent businesses having big market share in low growth markets then either generate cash nor require huge amount of cash because they are they do not generate cash because they are not they are not cash cows right. So, because of several problems they are in this particular quadrant should you too low market share these business; business units face cost disadvantages generally retracement strategies are adopted in this kind of s p use. So, in BCG matrix there are 4 quadrants you have got question marks you get stars you have got cash cows and you have got dogs and you have got 2 dimensions in BCG the first is relative market share and the other one is the second one is market growth rate.

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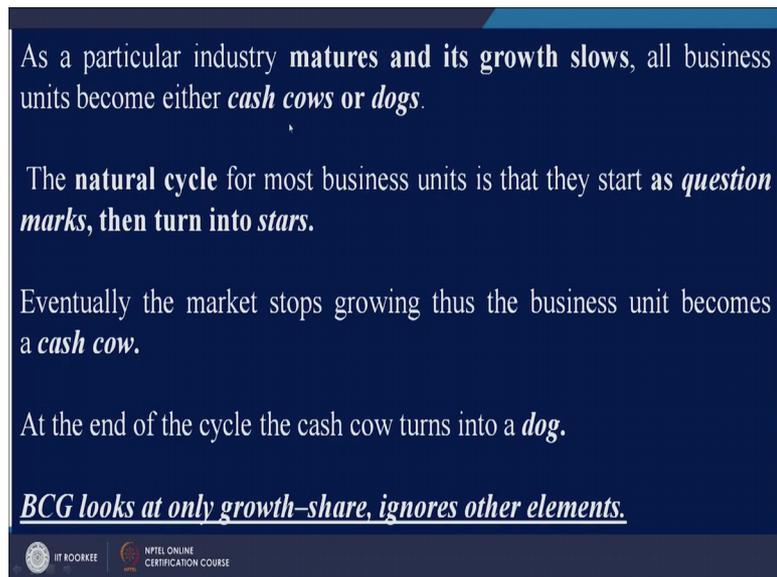
As a particular industry **matures and its growth slows**, all business units become either *cash cows* or *dogs*.

The **natural cycle** for most business units is that they start **as *question marks*, then turn into** *stars*.

Eventually the market stops growing thus the business unit becomes a *cash cow*.

At the end of the cycle the cash cow turns into a *dog*.

BCG looks at only growth–share, ignores other elements.

All the businesses mature at the end of the day all business units become either cash cows or dogs a natural cycle for most of the business is businesses is you have got initially question marks then those question marks may turn into stars not necessary that all question marks would become stars, but when question mark becomes a star eventually when market slows down those stars would become cash cows at the end of the cycle the cash cows would turns into dogs. So, this is basically BCG matrix the problem with BCG is that it looks at only 2 dimensions only market growth rate and market share and BCG ignores other elements. So, that is why this is a limitation of BCG matrix.

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So, let us look at McKinsey matrix or before that let us look at couple of examples of BCG matrix this is a slight which talks about all the quadrants along with the strategies which should be adopted.

So, let us look at question marks earnings would be low stable cash flow would be negative strategies either you invest if it has potential, otherwise divest if you invest it might turn into stars otherwise it would turns it would turn into dogs if you look at stars earnings low stable cash flow it is quite neutral strategy is invested remain invested if you are in cash cow. Then earnings would be high and stable cash flows also very high and stable strategies investment and current level of are harvest and the forth one is dogs earnings low because of some quality problem or some other problems unstable cash flow neutral or negative. So, the right strategies to go for divestment; this is an example of BCG matrix of Tata motors.

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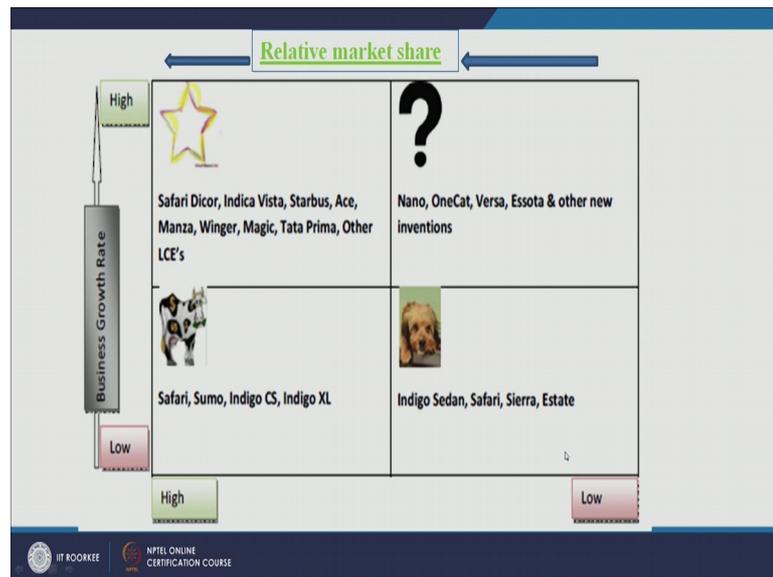
So, you have got relative market share on x axis you have got business growth rate y axis here these are couple of question marks. So, you have got let us say Nano, Versa and other models in question mark segment on this quadrant you have got safari you have got Indica Vista and these are other models in star segment.

In cash cow segment you have got safari sumo indigo c s indigo x l and in dog stage you have got indigo sedan safari sierra and estate.

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So, these are couple of examples of Tata motors as for as BCG matrix is concerned you can have another example of ITC and these are different products in different quadrants. So, they if you look at cash cows you have got FMCG cigarettes is a cash cow for ITC stars are Agri businesses hotels dogs are branded apparels packaged foods. So, can you prepare this type of matrix for let us say reliance and that would be your assignment. So, you need to come up with BCG matrix for products of reliance communication [noise. So, as I said a BCG matrix has got a disadvantage of considering only 2 dimensions and it ignores several other factors. So, to take care of some of the things we have got a new matrix; it is called McKinsey matrix or g e matrix.

Now, this matrix looks at businesses from 2 dimensions the first is how good your strength is your business strength is and how attractive that business is. So, this matrix we have divided this matrix into 9 cells you have got.

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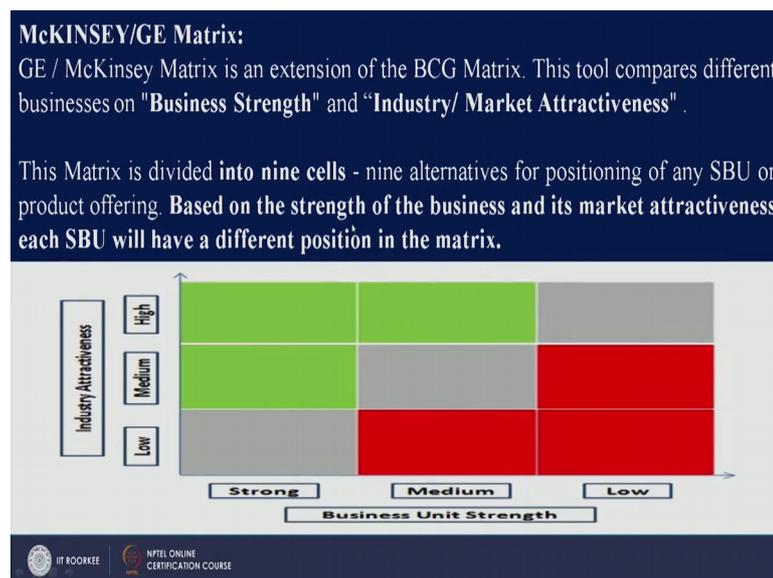
These 3 rows second 3 rows and third these rows. So, total 9 cells. So, based on strength of the business and its market attractiveness each SBU will have a different position in the matrix. So, on x axis you have got business unit strength are business unit strength and on y axis you have got industry or market attractiveness.

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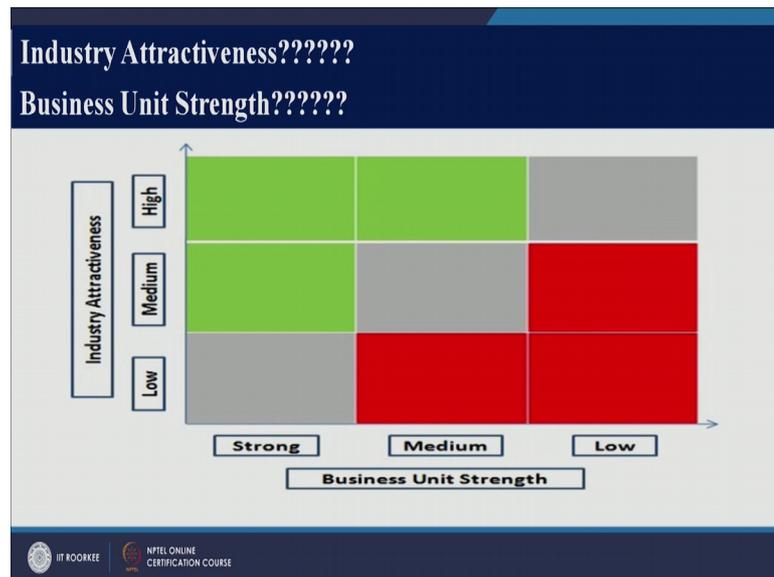
So, what do you mean by industry attractiveness and what do you mean by business unit strength just think over these 2 questions industry attractiveness industry attractiveness means.

What are the attractive points in it for example; are government policies suitable in that particular segment are government policies attractive in that particular business and there are many more things in industry attractiveness you need to look at what is the market size.

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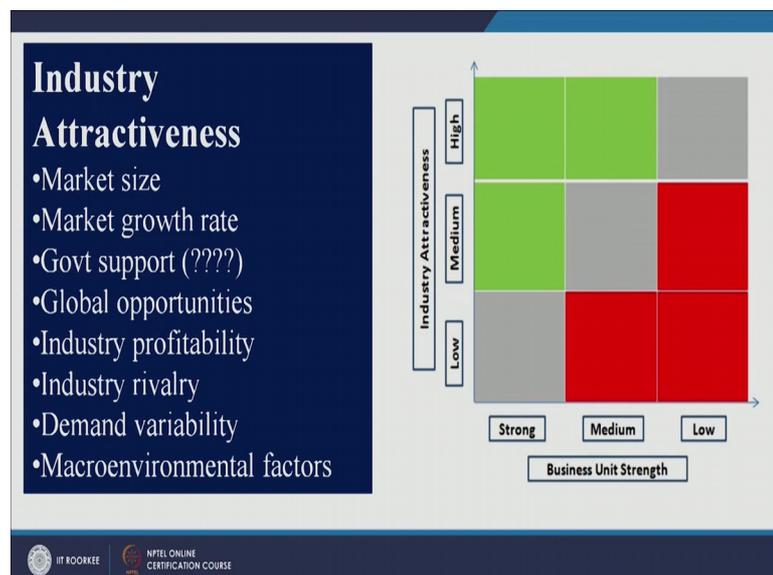
What is the market growth rate is government supporting that business for example, and do you have special economic zones is there any tax benefit for first 3 years or first five years are is government giving enough stress infrastructure in that particular sector what are different global opportunities how profitable that industries now a days this mobile and telecom industries quite profitable. So, you have seen different players in this market is what is the level of industry rivalry what is the level of computation demand variability is the demand mission do you have demand of only one particular product are there is a demand of variety of products and what are different macro environmental factors all these things come under industry attractiveness.

Now, let us look at business strength unit how good your strengths are how good your distribution channel is and what is the status of working capital and do you have let us say let us say how good your supplies and management is and some other things related to business unit strength.

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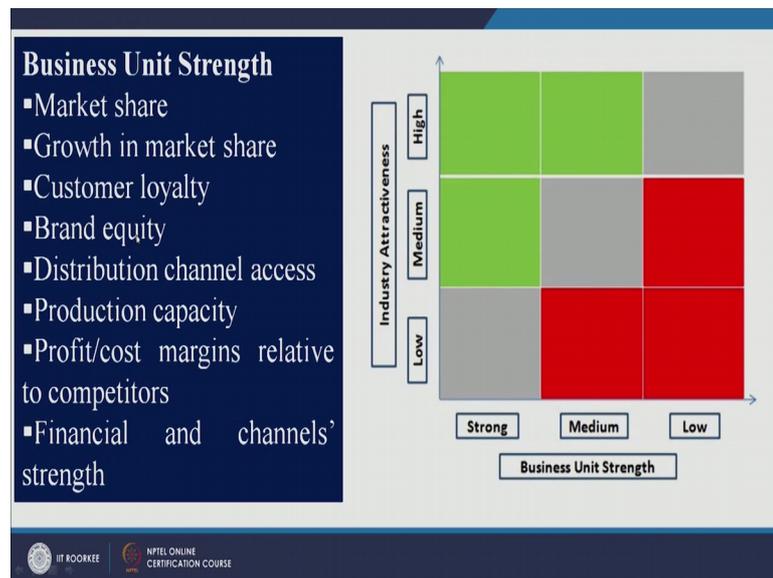
For example, market share customer loyalty brand equity right financial and channels strengths and these are some other points. So, if you have got all these this would be some days your strength right. So, these are 9 cells you have got business unit strength and industry attractiveness. So, in a business unit strength can be low medium and strong similarly industry attractiveness can be high medium and low. So, instead of 4 matrix;

you have got yeah sorry instead of 4 cells you have got 9 cells in McKinsey matrix. So, how to plot information on McKinsey matrix? So, let us look at this.

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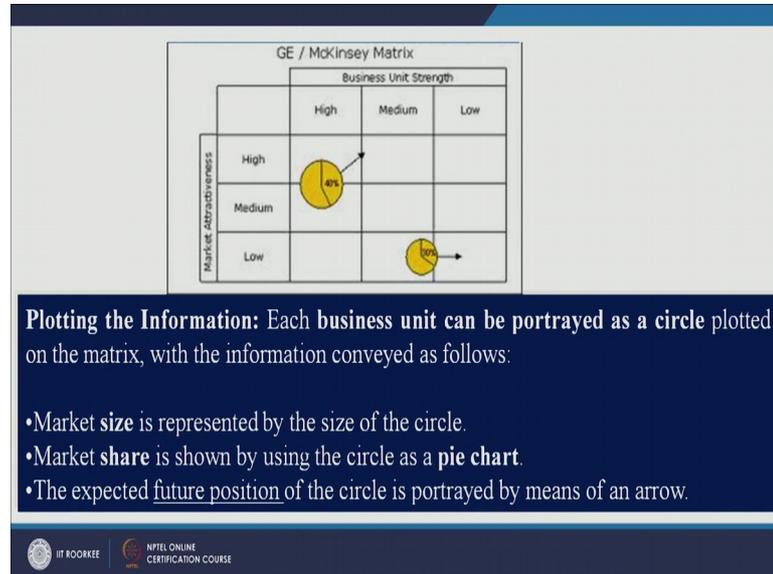
This circle represents market size and this number represents your market share in that particular business and this; this aero represents the future position of the circle which it would be taking. So, this is how you should represent business units in McKinsey matrix.

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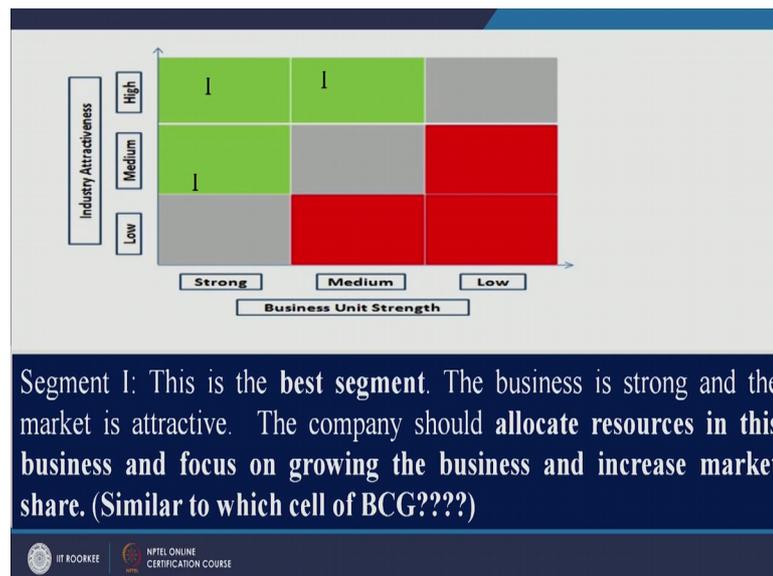
So, let us look at first segment of McKinsey matrix these 3 sets. So, business unit strength is strong industry attractiveness is high quite a favorable situation the company

should allocate resources in these businesses and focus on growing the businesses and increase market share. So, business you are your strength is quite strong and industries also attractive. So, what do you think this particular cell are these 3 cells similar to which cell of BCG matrix can you compare these 2 matrix you can say that this particular cell is similar to stars of BCG matrix, right.

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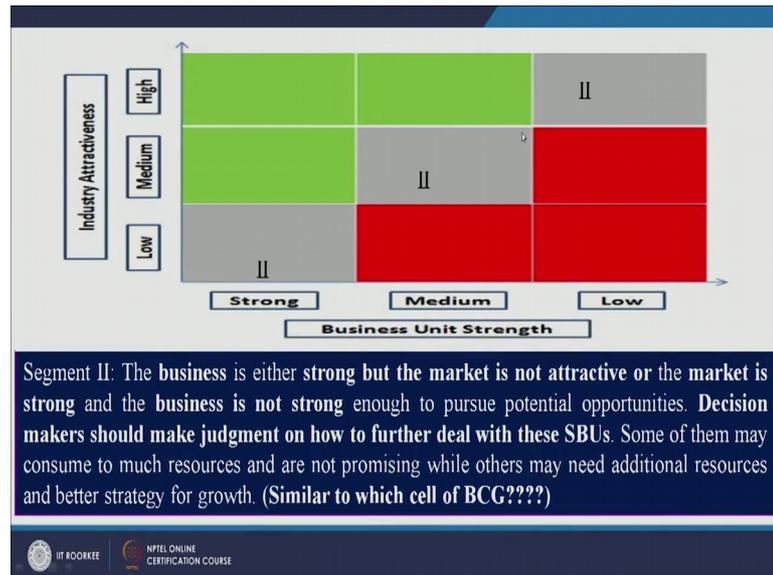
So, let us look at segment 2 these 3 cells now if you look at these 3 cells then you have got let us say business unit strength strong industry attractiveness low business; business unit strength low, but industry attractiveness is high and here both are medium. So, the business is either strong, but the market is not attractive this point or the market is strong and the business is not strong. So, market is strong, but business unit strength is low this point decision makers should judgment on how to further deal with these Bs use these are very strategic you know these are these are very important sales you have to be very careful what to do with these businesses some of them may consume too much resources are not promising while others may need additional resources and better strategy growth. So, can you compare similar to which cell these 3 cells are in BCG matrix they are they are similar to question marks right. So, if you invest in these businesses they may reach here right are in these cells if not they will come in these cells right.

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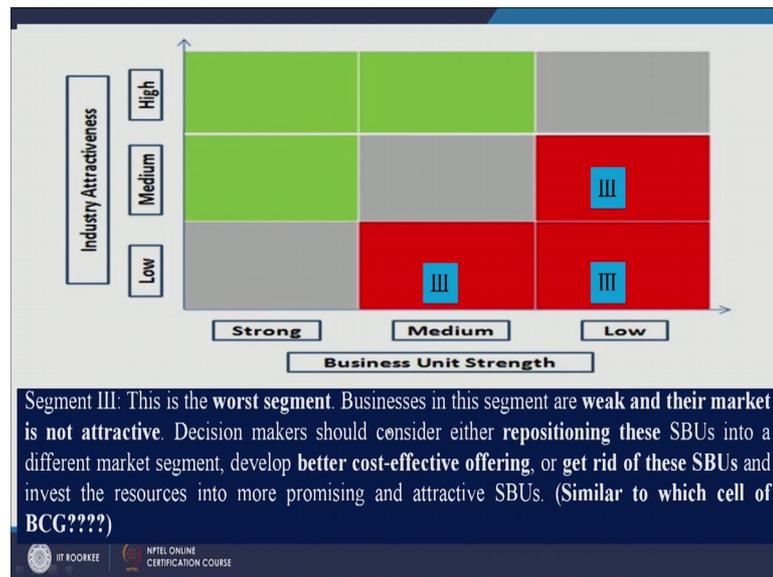
So, this is segment to segment 2 segment tree easy worse segment your strength is low industry attractiveness is also low right. So, decision makers should consider either repositioning these SBUs into different market segments develop better cost effective offerings and get rid of these reuse and invest in resources into more promising and attractive SBUs. So, these cells are similar to which cell of BCG matrix can you think about this question yeah. So, you can say that these cells are equivalent to dog's stage, right. So, McKinsey matrix is somewhat similar to BCG matrix except here you have got 9 cells.

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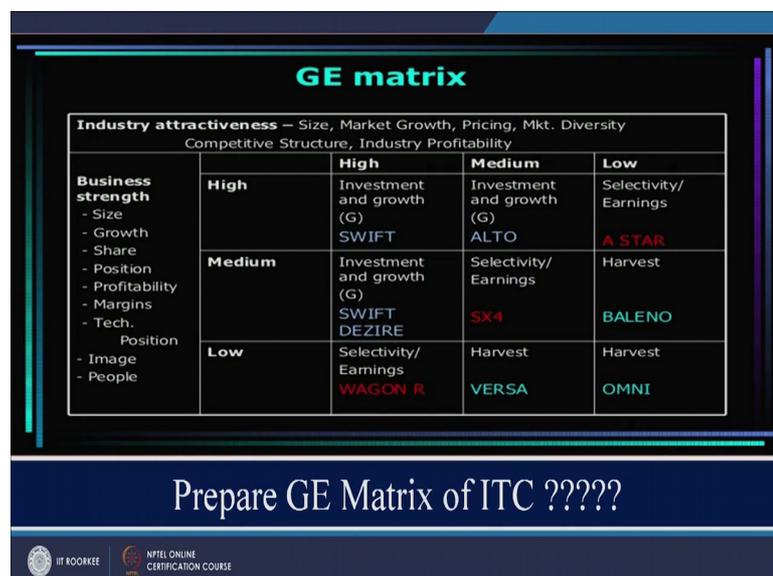
Let us look at couple of examples of McKinsey matrix. So, you have got industry attractiveness as I said size market share and. So, on and business strength how good your financial position is how good your distribution network is and so on. So, these are business strengths. So, respect this you have got a star here you have got Wagoner here right. So, similarly you can see other cells as well right. So, if you look at this high and high; high of this and high of this you have got swift with this let me stop this session here in this session we discussed BCG matrix and Mikasa McKinsey matrix; these 2 are the techniques for analyzing your portfolio.

With this let me complete this session in next session, we will discuss some more project selection methods.

Thank you.