Business Analysis for Engineers
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Lecture –28
Corporate Portfolio Analysis

Last class, we saw about the, Porter’s 5-Forces model, to study the characteristic of an industry, and measure how attractive, an industry is. Now, we saw the Porter’s Diamond, for country level analysis, the Porter's 5-Forces, for industry level analysis. Now, Porter’s Diamond could probably give some inputs on, how different countries are competitively placed, from different perspectives. Industry analysis, how one industry is structurally attractive, then the other industry.

Now, these are all very important models, when it comes to taking decisions, as to whether, this Country-A is better than this country, this industry is better than the other industry. Suppose, there are entities or organisations, which are very huge, where they have multiple business interests, big corporations. Conglomerates, we called them.

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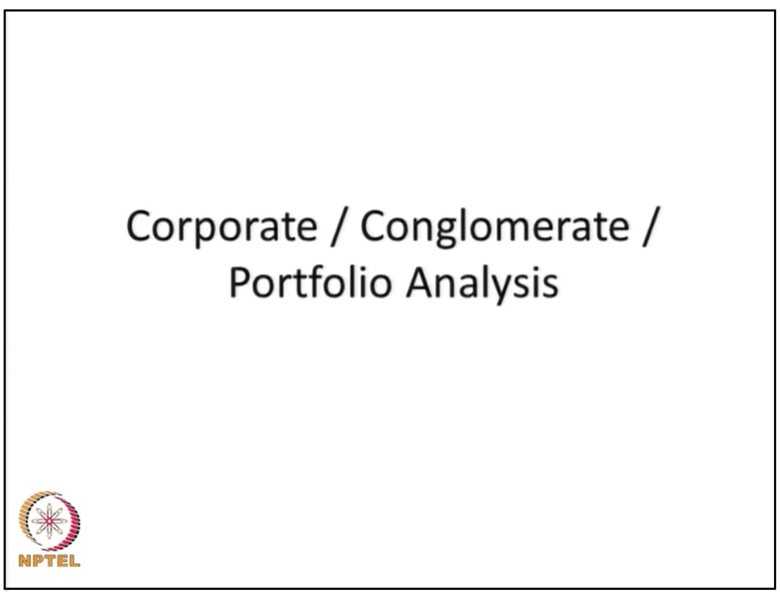

Or, one big corporation, or an organisation, that has multiple product streams, a product portfolio. And, as the chairman, or as the group leader, as the leader for these group companies, how do I know whether, within the same Conglomerate, Company-A, Company-B, Company-C, there are different entities within a Conglomerate, now how to understand and study, how each of them differ.

Just as different industries, we are able to characterise and tell that, this is better than the other. Can we do a similar analysis, to understand the competitiveness or, how one business operation within a Conglomeration is placed relative, to another business operation within, the corporation, or the Conglomerate. Now, that we can do, by again understanding, a different model.

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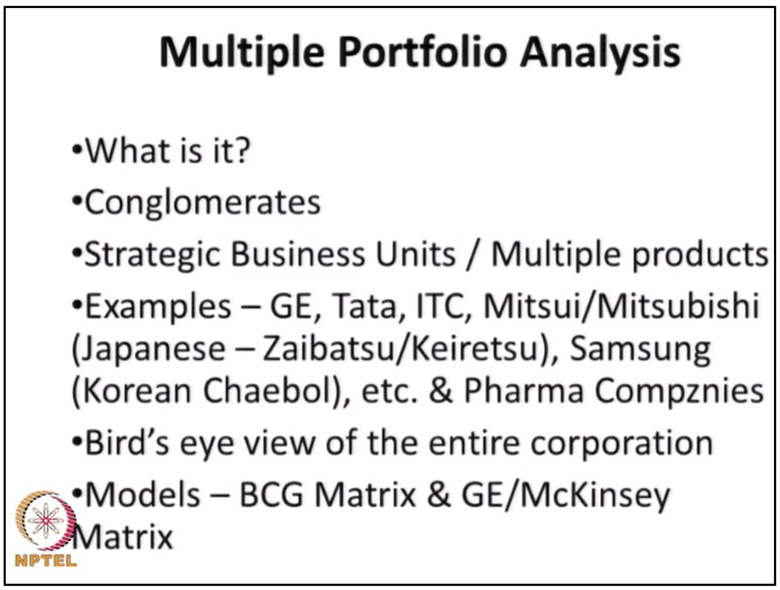

In this case, I will be explaining to the class, two models that we would be using. Now, first at a broad level, we should understand, why this is necessary. I gave you an example. This is necessary. Let us for example say that, we have a big Conglomerate. Now, what is the Conglomerate? Before, I go on tell you, what it is? Now, we should first understand, there is a need for big corporations, which has a number of subsidiaries. Or, we call them, the strategic business units.

Or, one big organisation, that has multiple product streams. And, we need to understand the performance of, each of the subsidiaries, or each of this products, relative to the other. Just as we had the 5-Forces, to understand the attractiveness of an industry, we also need some structured model, to understand the relative performance of, one SBU over the others, one product line over the others. Now, Conglomerates are big entities, under whom they have, different business enterprises.

Classic example is GE. In our case, in India, we have Tata. The Tata Sons, and subsidiaries or the other group entities, or the Tata Chemicals, the Tata Power, the Tata Consultancy Services. See, these are all the subsidiaries of the, big Conglomerate called the Tata. Or, ITC. Or, in Japan, Mitsui or the Mitsubishi. Usually in Japan, they were used to be called, the Zaibatsu's. So, now the Keiretsu's. So these are the big Conglomerates. Or, in Korea, they are referred to as, the Chaebol's. The Samsung in Korea.

Or, in some pharma companies, for example, it could be a one pharma company, they have multiple product lines. One for neural disorders. One for cancer. One for cardiovascular diseases. And, each of them by itself, is a big business proposition. So, you have multiple product, which can also be viewed as, individual subsidiaries of a big Conglomerate, within the same organisation. But, the requirement is that, we need to understand the relative performance of each of these entities, relative to the others, within the umbrella, so that we get a bird's eye view, of the entire corporation.

Suppose, I am Ratan Tata. As the chairman of the Tata Group, I need to know, how Tata Chemicals is performing, how Tata Power is performing, how Tata Tea is performing. For that, we have two models. One is the BCG Matrix, and the other is the GE McKinsey Matrix, which can be used, to make this bird's eye view analysis of a big corporation, which has a number of subsidiaries, or an organisation, which has critical business, I mean, product lines. And, to make this relative analysis, let us first take the BCG Matrix.

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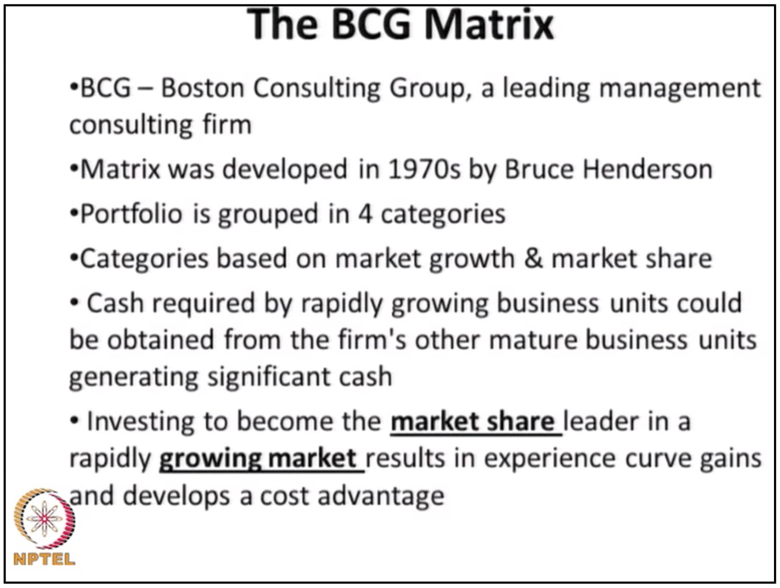

As the name suggests, BCG is the acronym for the Boston Consulting Group, which is a leading management consulting firm in the world. One of the leading management consulting firms in the world. And, this was developed in the 70's by Bruce Anderson, from the BCG group. Now, the matrix, it divides the entire portfolio into four distinct categories. These portfolios could be, as I said before, different companies, or different product lines. And, each of them will fall under, four specific categories.

And, these categories, are based on two parameters. One is the market growth, the growth in the market. And, the other parameter is the, market share. Now, based on these two parameters, these four categories are formulated. And, also that, some businesses need cash to grow. Some businesses generate cash. And, since we are talking about the bird's eye view, a business that generate cash, the cash from that business will be used to invest, in a different business under the same group.

Because, that business is in a growing market, and hence we need investment. And, cash from a cash evading business gets invested, into another business which needs to grow. And, over a period of time, that might also start generating cash. But, the understanding that is required is that, there is a need to invest, get the market share, and become the market share leader. And, if we are able to do this, over a period of time. And, this you can do, only if the markets grow, if it is a growing market.

And, in the process, there is this experience curve learning. And, the gains of that learning, actually develops into a cost advantage. So, in a growing market, with investments into a business, making that business, gets some market share, and able to do this over a sustained period of time, with the learning curve experience, businesses get the cost advantage. So, these two important things are required, that the market should grow. And, in a growing market, that the business has to, also acquire some market share.

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Let us understand, the definition for market share. In a very simple layman's term, if you are talking about the market share of a particular business, it is the proportion of the business share, in the total market. This proportion could be measured, in terms of the number of units of the product, that has been sold. Or, the volume, of the service or product, that is being sold or delivered. Or, the value of the sales itself. So, both are measurable.

And, with both of these, we can calculate the market share. Let us say, the market shares of Business-X. Then, the market share of Business-X, is the sales value. Which means, the total amount of rupees, that selling X has generated, or the total number of units of X, that has been sold, divided by, the entire sales in that particular market, which includes sales by competitors, that gives you the market share.

Suppose, I want to know the market share of TVS Suzuki bike, it is the number of bikes, the

TVS Motor sells, or the total rupees, the TVS Motor generates as sales, divided by, the total number of bikes sold by the two wheeler industry as a whole, which includes the total number of bikes sold by Hero Honda, by Bajaj, then TVS Motor, and all other two wheeler manufacturing units. So, this gives the market share.

There is also another term, that you should know, that is called the relative market share. Let us again take the example, if I need to calculate, the relative market-share of TVS Motor Company. Then, the relative market share is, TVS Motors market share, divided by, the market-share of its closest and strongest competitor. I think, closest would be a better word. It is closest competitor. And, a relative share is greater than one, then you are the market leader.

Because, it will be your market share divided by, your closest competitor, if he has a leisure market share, then your RMS is greater than one. The highest RMS is, means that, you are the market leader. It is always greater than one. So, this relative market share measures, the organisation's market share, relative to its closest competitor.

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Now, there is also another indicator, which is the market growth. Market growth measures the attractiveness of a market. Now, market growth rate is, let us say, this year sales, minus the previous year sales, divided by previous year sales. It is greater than one, then it is a growing market. And, always in a growing market, since the market grows, it always attracts competition.

Because, the size of the pie, keeps on increasing.

Everybody wants to have a share of the pie. And, to have incremental shares of the pie, you need additional investment. So, a growing market, attracts competition. And, also needs investment, to gain more market share, in this growing market. So, there are two important parameters, that we will be using in the BCG Matrix. The market growth, as well as the, relative market share.

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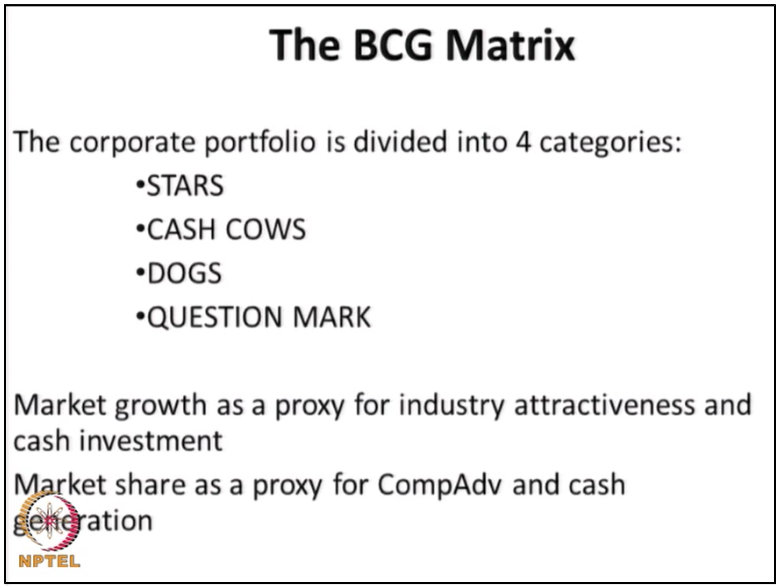

Now, as I said before, the BCG Matrix divides, these group companies, into four distinct categories. And, they are called, the Stars, the Cash Cows, the Dogs, and Question Mark. Now, we are using two important parameters, the market growth, as well as market share. Because, market growth is a proxy for the attractiveness of the market, and needs cash investment. And, market share is a proxy for competitive advantage.

Because, the more and more somebody gets market share, it means there is something competitive, that the service of the products has got to offer. And, it also proxy for cash generation. So, market growth is for industry attractiveness, and cash investment. And, market share is a proxy is a reasonable proxy for, competitive advantage and cash generation.

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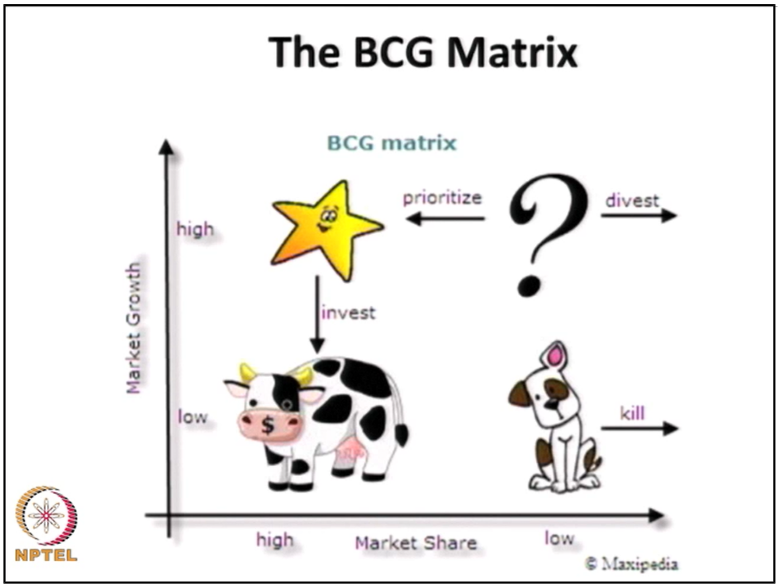

So, if you look at the BCG Matrix, on two axes, which is market share at the X-axis, and the market growth in the Y-axis. Based on, whether they are high or low, these four categories are being placed. The Dogs, the Question Mark, the Stars, and the Cash Cows. These are the four predominant categories, in a BCG Matrix. And, what each of them characterise?

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STARS – High MG & High MS

- Stars are leaders in business, most desirable
- They require heavy investment to maintain its large market share.
- It leads to large amount of cash consumption and cash generation.
- Attempts should be made to hold the market share
- During declining market growth a Star will become a CASH COW.

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Stars, as you see here, high relative market share, and high market growth. And, Stars are typically the leaders, within that group. And, that is the most desirable business, that any group would like to be in. Any business would like to be in, these Stars category. And, these Stars category, because it is high growth rate, and also high market share, which needs to keep on growing, requires heavy investment, to maintain its large market share as well.

And, it leads to large amount of cash conception, because investment is required. And, since it is also high market share, and growing market, it also leads to cash generation. Because, as I said before, growing market, market share, both is related to cash. Market growth is cash investment. And, market share is cash generation. And, if you are high on both, it means, you are investing in cash, as well as generating cash.

And, since I said, this is the desirable sell, that many businesses want to be, many of them would attend to be, under this category. And, assume that, over a period of time, that the growth in the market, declines. And, market share remains the same. Then is the next category, which will make Stars to become, Cash Cows. Now, Cash Cows, as you see in this matrix, low market growth, and high market share.

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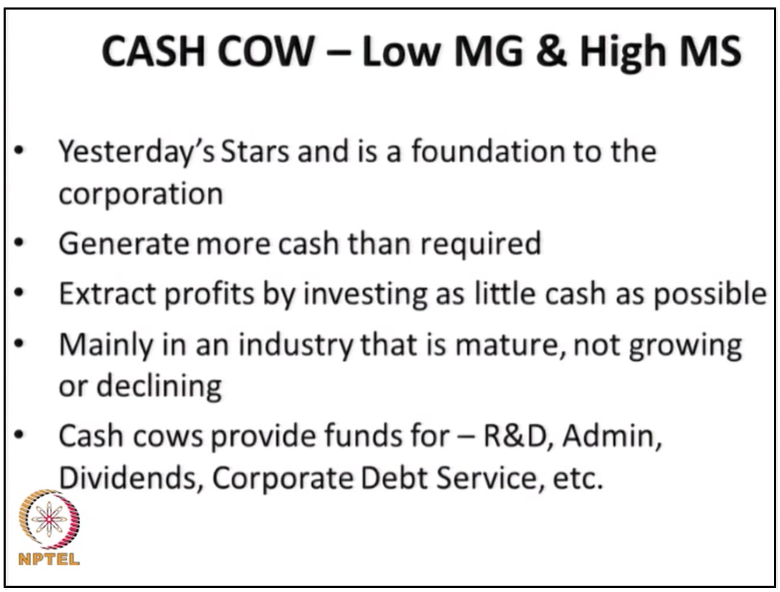

So, these are typically, yesterday Stars. And, this Cash Cow, also forms the foundation of the corporation itself. Because, these are the ones, that will be generating cash. This will generate more cash, than required. Because, the cash that is generated is not been invested because, we are talking about a declining market growth, a low market growth, and high market share. So, it keeps on generating, cash. And, it extracts profit.

And, we are talking about profitable business. Typically, you find companies in this category, they will be in an industry, that is mature. Which means, there is no room for, further growth. And, typically, Cash Cow firms are the ones, that provide funds for the Group R&D, the Group Admin expenses, Dividends to be distributed, to service Corporate Debts. So, these are the firms that provide, the corporate's cash requirements, as well.

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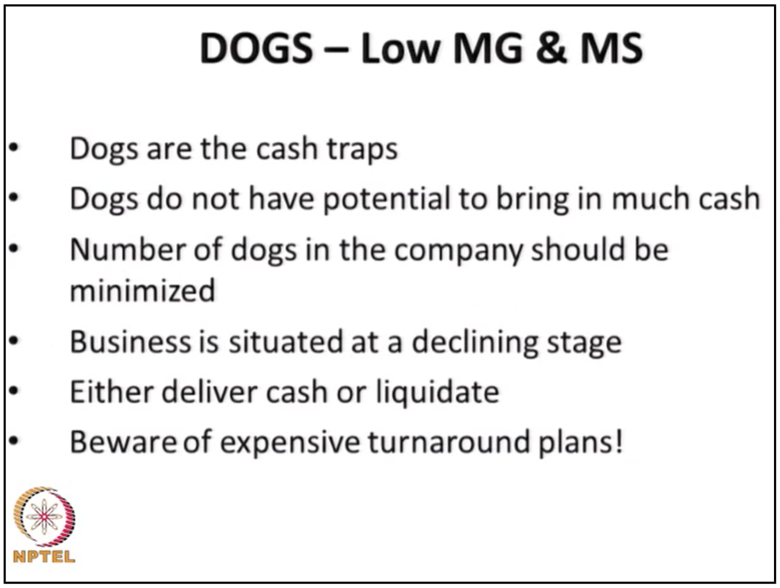

The next would be, the Dogs. As we see here, this will be low in market share, as well as, low in market growth. Now, these are the cash traps. They do not have the potential to, bring in much cash. And, these are the types of firms, that we need to eliminate. How do we eliminate them? We just liquidate them, sell it. Sell it for cash. And, these are companies, when there is no market growth, there is no market share. There is no point in holding companies, under this category.

So, these turnaround plans, we have to be really cautious, when we are examining, these turnaround plans. Because, we are talking about companies, under this category, which has both, a low market growth, as well as a low market share. And, these are companies, that are fit candidates for, disposal for cash.

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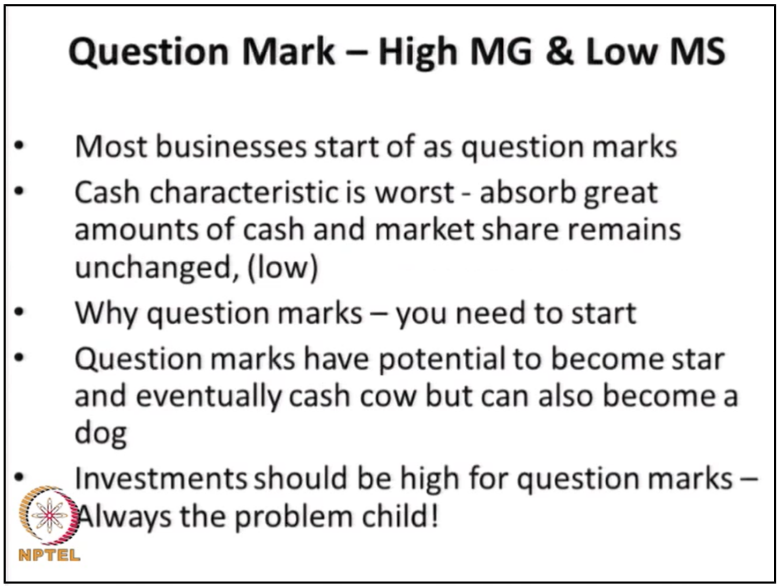

The fourth category is the Question Mark, which belongs to the high market growth, and low market share. Invariably, many businesses start this way. Because, you do not start with a high market share, at day one. So, you find, there is a great potential for growth in the market. And, when you start, you have low market share. And, the cash characteristic, appears to be the worst. Because, you are using a lot of cash, and starting with low market share, generating very little cash.

Now, why is this? Because, this is the characteristic for any new business. We need to start somewhere, and we start from the Question Mark category. And, what will happen over a period of time is, Question Marks will eventually, have the potential to go into the Stars. Which means, they would have relatively grown. And, also along with growing market also, have a growth in the market share. And finally, when the market declines, will become Cash Cows.

The challenge is to identify, such candidates. If you look at this, when your Question Mark stage, the challenge is to identify good Question Mark candidates, invest in those, that have the potential to be converted into Stars. So, you have to prioritise, good Question Mark candidates, and convert them in to Stars. And, the rest, you divest away from that business. That is a very tough challenge to choose, from the Question Mark categories.

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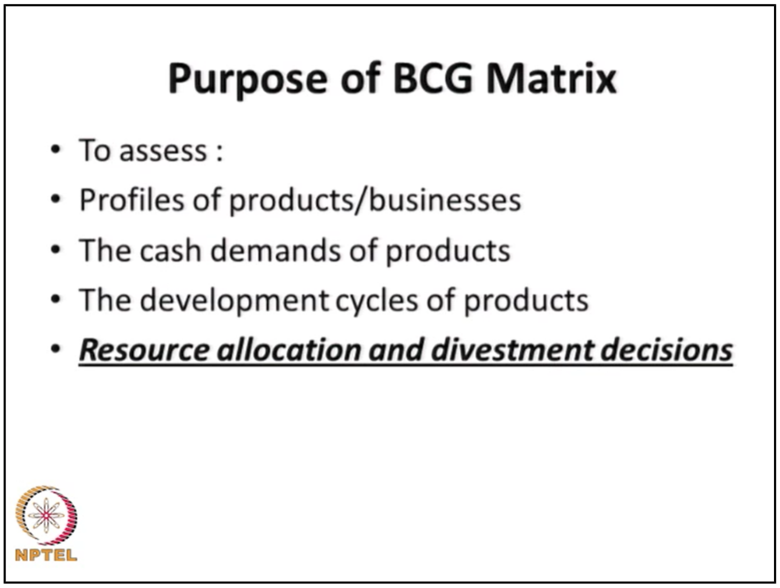

Now, why are we doing this? This, I said before, it is to assess various businesses, or various product lines. And, the cash behaviour of each of these businesses and products, whether they are generating cash, or consuming cash. And, based on this, how we can allocate the resources. There is no point in allocating extra resources, for a firm, that is in the Dog category. And, if we find that there is a potential for a firm in the Question Mark category, to be converted in to Stars then, we are able to invest into those firms, which can be potentially converted to Stars. Now, this we can do, only if we are able to place these firms, in these different categories.

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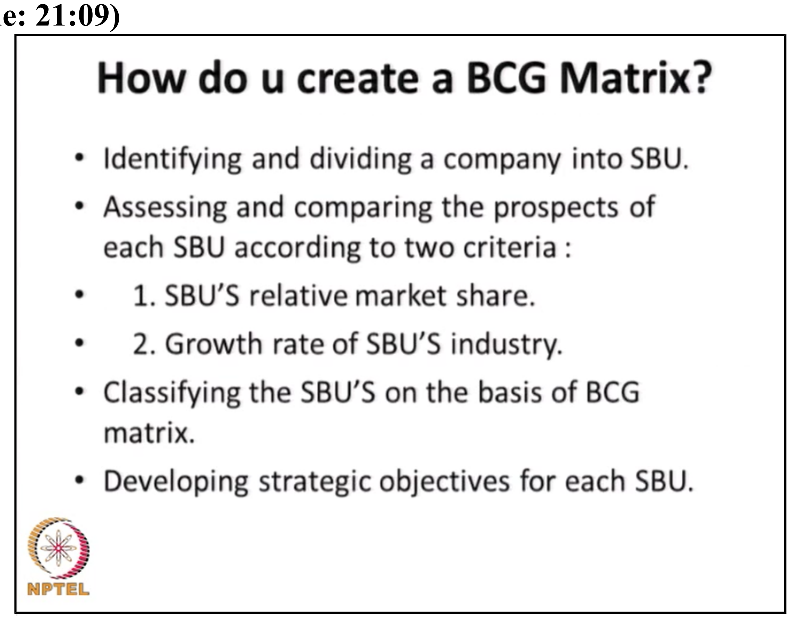

Now, how to do this? Now, let us say, I have a big corporation. And, there are easily identifiable businesses, or different product lines. A different strategic business unit, within the same firm.

Take, each of the firm's relative market share, and the growth of the industry, in which the firm is participating. Or, each of the products, relative market share, and the growth of that particular product itself, in the industry. And, then classify, all of these products or businesses, into these BCG Matrix. And then, you get a clear picture, which measures the relative position of each of these firm, against each other. And then, that becomes easy for you, to make strategic decisions.

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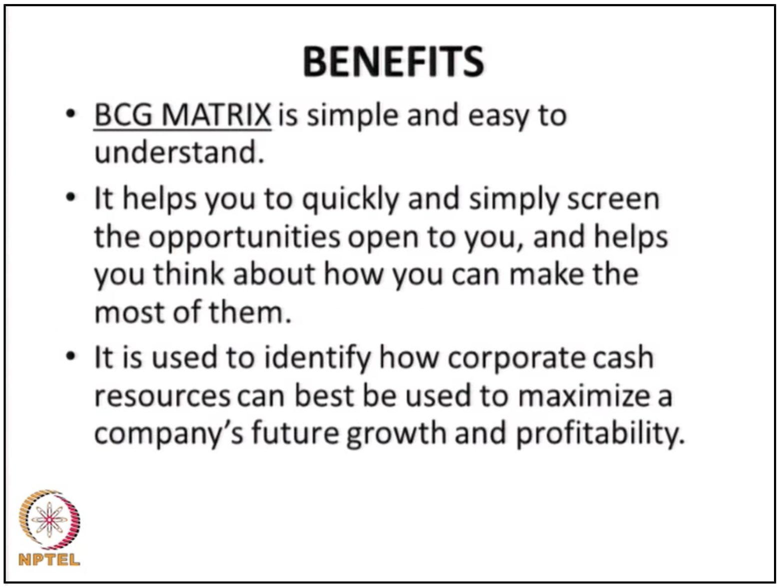

This is the use for, a BCG Matrix. Because, it helps you to quickly scan the corporate scorecard. And then, based on that, you will be able to take, quick decisions. How to deploy these extra cash, that is being generated from Cash Cows? Whether we need to put it in Stars, or Question Mark? Definitely, not in Dogs. But, this decision you will be able to take, only if you are able to categorise these, into, all these four categories. And, this is very important, from the perspective of maximising, the future growth and profitability of a corporation.

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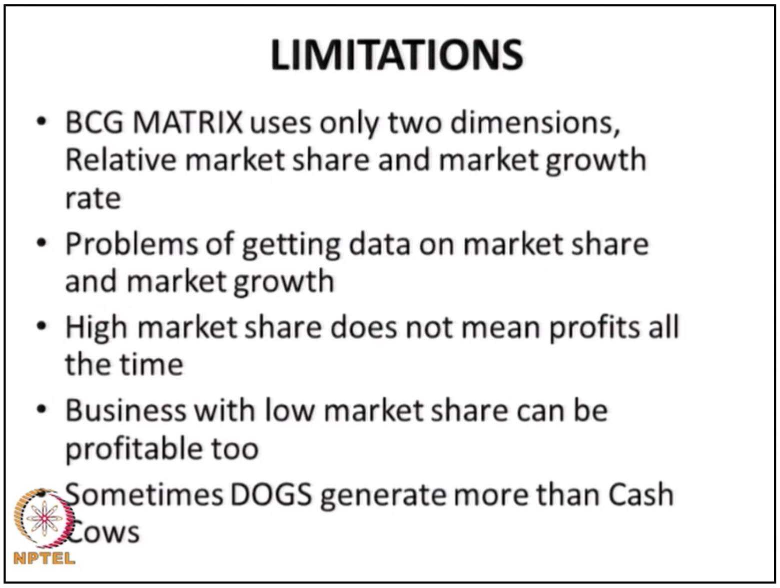

Of course, there are limitations to it. Because, this is based only on two data, that is the relative market share, and market growth data. At times, even getting that data, becomes very difficult. Also, high market share does not mean, profits all the time. So, there are times where, units, businesses, could have the highest market share. From, a profitability perspective, it is not that good. And also, businesses with low market share, can be profitable, as well.

And sometimes, even the Dogs generate more, than Cash Cows. Because, liquidation can even generate more cash, than the Cash Cows themselves. So, there are some limitations to this BCG Matrix, that we should be cognizant of, before we use them. And, aware of these limitations, we still can use the BCG Matrix.

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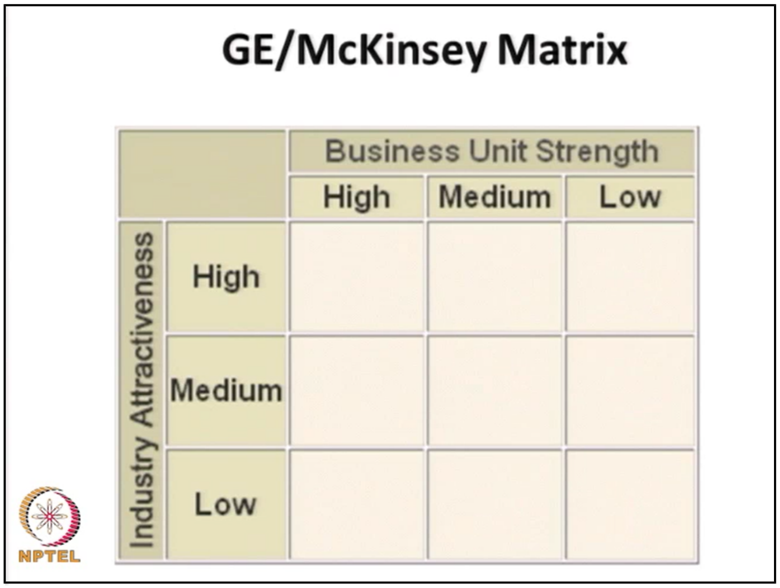

The next matrix is the, GE McKinsey Matrix. This is actually developed by McKinsey, for GE. Which, again uses two parameters. The business unit's strength, and the industry attractiveness. The industry in which, the business unit is situated. And, then characterises each of the business unit into, 9 different categories. High-High, High-Medium, High-Low, and so forth.

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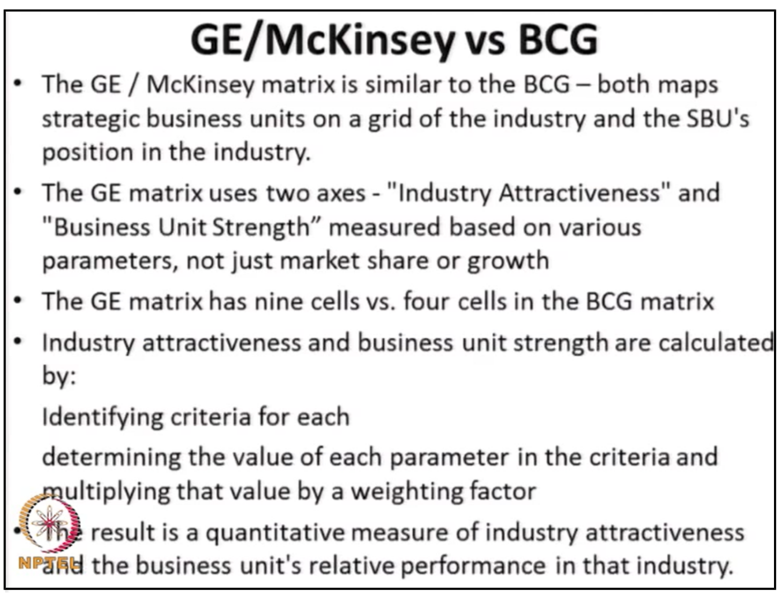

The broad requirement, why we need to do this, is all the same. Both maps, strategic business units on a grid. In this case, the GE McKinsey uses, the industry attractiveness, and the SBU's position, the Strategic Business Unit's position, in the industry. And, in BCG Matrix, we used, just the relative market share, and the market growth. Whereas, in GE McKinsey Matrix, the industry attractiveness, and the business unit's strength, is measured on various other parameters, which I will be giving later.

In BCG, you just have four categories. Whereas, in GE matrix, you have nine cells. Now, the industry attractiveness, and the business unit's strength, in this matrix, are calculated and quantified. We give a value to this. Now, how do we do this? We identify various criteria, that we think, measures industry attractiveness, or is relevant for business unit strength. And, not only that, how much relevant it is.

Suppose, let us say, industry attractiveness, and identify ten parameters, and give a weightage to each of that. And then, we have a relevant score, to each of the parameter. And, the weightage, multiplied by the score. And, the weighted average, gives the final quantified score, that measures industry attractiveness, or business unit strength. Based on that score, we place the entity into, any of these nine cells.

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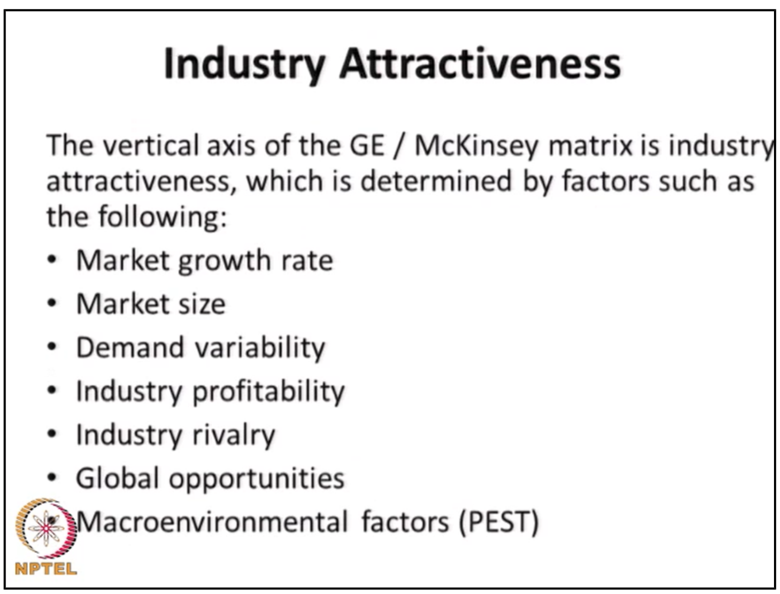

Now, what are the factors, that we may use. I am not saying, this is the exhaustive list. We can add more to this list, as long as we feel, that these factors, are important to measure the industry attractiveness. Again, we are going to use Market growth rate, and Market size, Demand variability, Industry profitability, Industry rivalry, Global opportunities, the Macro Economical factors, PEST. PEST is the Political Economic, Technological and Social context.

Some will appear to be, qualitative. But, the challenge is to, provide some valid scores, to the qualitative indicators. A quantifiable score, and how much weightage, to each of these parameters. So, once we attach weightage to each of these parameters, and a relevant score to each of these parameters, and the weighted average provides, one score, that measures the industry attractiveness.

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Likewise, for business unit strength. See, GE is a big Conglomerate. It has GE Healthcare, GE Power. It has the Aerospace. So, it has a variety of such businesses. So, if you are talking about GE Aerospace, the industry attractiveness of the Aerospace industry, has one score. And, GE Aerospace, which is the business unit strength. The strength of GE Aerospace as a business, has one score. And then, we are going to put it, in a particular cell. Which again is measured, based on the market share of GE Aerospace, growth in market share.

The brand equity, that it has. The distribution channel access. If I am talking about, let us say, if it is GE consumable electrics, through distribution channels. The production capacity, which is more. These are all relevant to the business unit. The profit margin relative to competitors. And, again, this is not the exhaustive list. You can add more to this list. And finally, based on the weightage to each of the factors, and the score to the each of the factor, we have a particular score, that measures the business unit strength.

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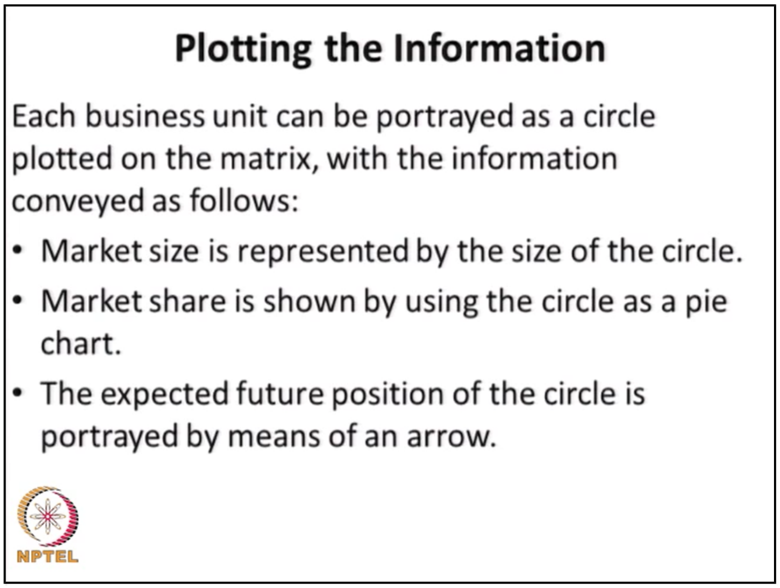

So, each business unit, now can be portrayed as a circle, plotted in this matrix. I will give you an illustrative, GE McKinsey Matrix, for you to interpret, and understand this better. In which, the circle, that gets into the matrix. I will just show this. And then, you will understand this.

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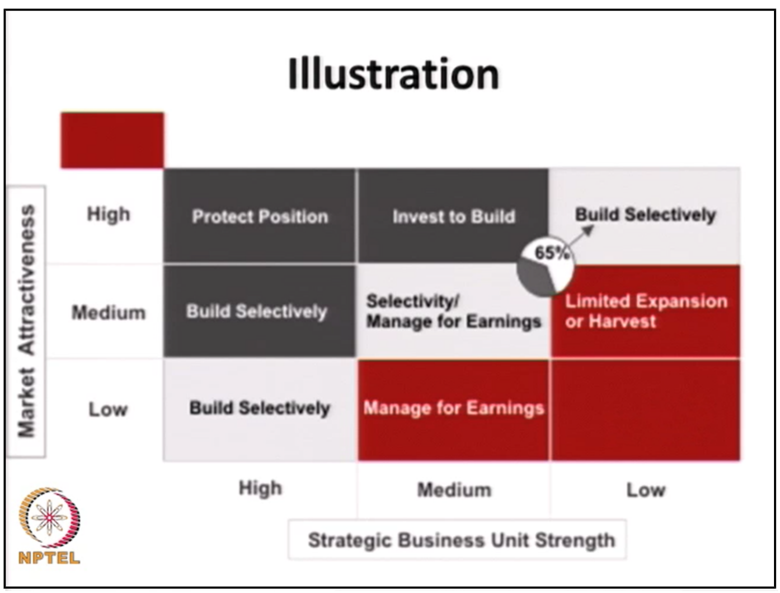

So, we have a circle. We have a percentage, here. So, what it means? The size of the circle, represents the market size. And, market share is shown by the, pie in the circle. And, the expected future position, you see an arrow here, is portrayed by means of that arrow. It actually forecast, the future position of that particular, strategic business unit. Now, for example, if we are using this matrix, and arriving at the matrix for a big Conglomerate, this is how it will look.

Based on the scores, this particular SBU, let us say the circle is, as I said before, the size of the circle represents, the market size of that particular SBU. If it is bigger, it means, it is a bigger market. If it is small, it is a small market. And, within that market, it has 65%. And, an arrow pointing towards that. In this case, the strategic business unit strength, is low. But, the market attractiveness, is very high. Which means, we need to build that unit, selectively build it.

So, we take different decisions based on where, the strategic business unit is in, this matrix. And, take decision to invest, or consolidate, or just maintain, manage, or divest, or harvest from that business. So, that explains, this illustration, if you have a high and low here, it tells you to build selectively, high business unit strength, but low market attractiveness. So, you need to be very selective in your building. And, if a high market attractiveness, and high strategic business unit strength, you will have to protect that position.

Or, you need to invest, if market attractiveness is very high. And, you have a medium business unit strength, you invest to build and consolidate, the business unit strength. So, you have different combinations, that are possible. And, just as we used BCG Matrix, to get this bird's eye view of a corporation, we used a similar GE McKinsey Matrix to again, see where this business unit is positioned. And, compare the positions of various business units, and measure on a relative basis. And then, take decisions, whether to invest or divest. And, what to do to just manage, and stay where we are.

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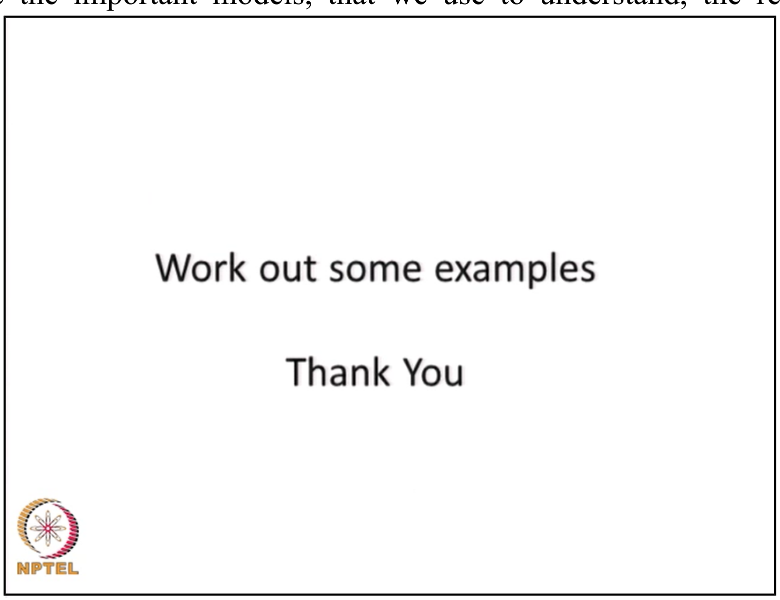
So, these two are the important models, that we use to understand, the relative position of



different entities and businesses, under a corporate umbrella. And, the best way to understand this better, is to work out on serious examples. As I said before, a very good example, that you can use and work is, the group of Tata. The Tata group. And then, you do this analysis, and put different entities in different cells. And, put yourself in the shoes of Ratan Tata, and ask the question, what am I to do, with those businesses, that are in Dogs, or in Question Marks.

You can do this analysis, if you do a BCG Matrix of the Tata group, or a GE McKinsey Matrix of the Tata group. So, the best way to understand this, and appreciate this better, is to take such examples, the Tata, or the ITC, or the Reliance. And, come out with a BCG Matrix, on your own. And, in fact, I would suggest, this is an assignment for you, that you come out with a BCG Matrix for the Tata, or the GE McKinsey Matrix for Reliance. And then, you will understand this concept, better.

Before I conclude, I will also show you a small video, of a very good explanation of the BCG Matrix, of a very famous corporation. And, once you watch this video, you will also understand the thought process, behind this matrix requirement. And this, in my opinion, will also help you in preparing a matrix, for an example, that I ask you to do. So, you just watch this video. And then, as an assignment, you can start preparing a matrix, for any of the corporation, that interest you the most. Thank you.

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