## Strategic Management for Competitive Advantage Professor. Sanjib Chowdhury Vinod Gupta School of Management Indian Institute of Technology, Kharagpur Lecture 56 Developing Strategic plan of a Major Oil Company - II

Welcome to the course Strategic Management for Competitive Advantage. We were discussing how to develop a strategic plan. So, the first thing we have developed that situational analysis and we have developed a strategic objective.

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Now, in this session, we will be discussing how to formulate a strategic plan. So, this is the heart of the strategic plan. So, we will be there all we have discussed in other, so, in this section, we will be covering strategic options evaluation and selection, that is, formulation of

strategy. So, this rest we will be doing it in the next session. So, we are now in strategic options, evaluation and selection.

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So, to formulate a strategic plan and this is these are the steps we are going for it. For an oil and gas company, it is very risky; uncertainty is very high, it is a high cost, high technology is required, uncertainty in it and with high uncertainty, risk is also very high. So, here you have to develop a framework for this particular, and these characteristics for different companies or sectors are different. So, this is a complicated one. So, if you learn this, you can apply the same thing in your industry.

So, if for developing the formulating the strategic planning framework was adopted to reflect the inherent uncertainty in long-term planning in oil and gas and how to manage the portfolio. So, here what are your assets? Assets are your product, oil and gas, which are entrapped in the subsurface, and those assets remain idle unless it is monetised and has no not much value.

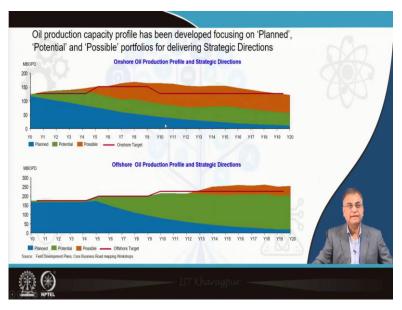
So, here you categorise it as these assets are your opportunities are the planned potential and possible these three categories and what is the planned? Planned is that those projects or opportunities, those oil fields or gas fields, those are committed projects means, they these are already producing that planned is the already producing and all. That budget has already been allocated to the financial capital resources you have allocated, giving you the planned production, that is, the existing oil and gas fields.

And potentials are the opportunities, those oil and gas fields, those opportunities are proven, you have made it that capacity provision capacity, but you have yet to allocate any resources,

any fund to develop it and all to commit it. It is not a committed project; you have to allocate funds to those proven capacities, and all that is the potential assets, and another is the possibility which are highly uncertain opportunities you may be successful or may not be.

Explorations of oil and gas are hugely costly and risky, and you do not know whether you will discover oil or not; these are possible or even if you have found oil and gas use, you do not have the technology to uplift it. So, that technology may be the heavy oil, heavy oil you have to redeploy different technology. Still, if it cannot come or comes out on its own, those are the possible assets or possible opportunities. So, you do it this way.

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Then, what do you do? For a strategic plan, oil production capacity generates many opportunities for how you can attain your strategic direction. So, the oil production capacity production profile has been developed, focusing on planned potential and possible portfolios for delivering your strategic directions.

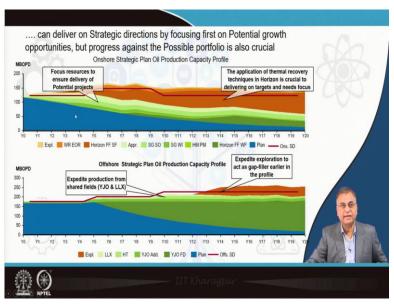
If you see these two, this is the onshore oil production profile; this is the offshore oil production profile it has been drawn, say year Y 02, year Y 20, year 20. And these are your thousands of barrels of oil production per day; how will you do it? This blue, this one is the plan means these are the existing oil and gas field these are for oil.

Say existing oil fields, if you go on producing, you are decreasing your liquid reserves, decreasing your production capacity; production capacity will be decreasing exponentially, say year 22 will be this. But this red line is your strategic direction. The apex body gives it. So, you have to maintain this from the amount from the onshore and this is for the similarly

for the offshore if you continue production at this rate, you are the planned oil and production gas will dwindle like this production will like this.

So, this is your offshore potential. There is potential in these fields there. You have to commit to your project. You have to develop this field to attain the strategic direction, and this red is the possible like this is highly uncertain. So, if you see this onshore, even this potential will not help you to achieve your strategic direction. So, you have to rely on these possible that is which are highly uncertain resources or opportunities you have it. So, you generate your oil production capacity profile that is it from all your opportunities and all you do it. So, first, step you do that, then the second step, what do you do?

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This is a further breakup of though this is a further aggregate breakup of this is this say. Each layer, as I discussed, is onshore; if the present rate of production goes on, your production rate comes down so heavily. So, you have to depend on the potential and possibility these each layer the opportunities in your different oil and gas fields opportunities each layer. So, you have to focus your resources to ensure the delivery of potential projects.

So, this has great potential because these are proven capacities; you have to develop these oil and gas fields. So, to attain your strategic direction, this red line is the strategic direction. So, what you can deliver, the organisation can deliver on strategic direction by focusing first on potential growth; these are the potential portfolio opportunities you have; you have to we these are the high chances you will be getting it.

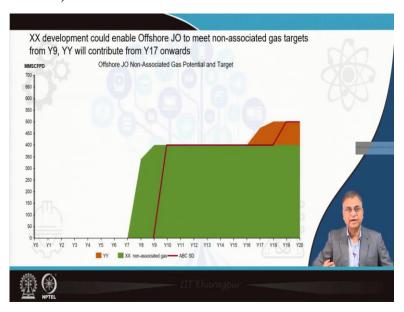
So, first, focus on the potential. Still, progress against possible portfolios is also crucial because, even if you do the potential, the potential portfolio opportunities, your gap of strategic directions, whatever has been given, remains. So, it is very important that your possible opportunities have to be realised.

So, this is nothing but that heavy oil; they have huge heavy oil reserves, but heavy oil is very costly to live, and it is very technologically intensive, and that technology has yet to be tested in that carbonate reservoir there. So, that is why it was possibly kept. So, what is to be done? Heavy oil has to be done application of thermal recovery technique in the two is crucial to deliver the targets and needs focus.

So, if you are successful in this, these will give you that fill up your strategic directions you will be doing it. Similarly, this is for or offshore. So, what do you do? You found out different opportunities; these are the different layers, and these are the opportunities you find out and those you try to develop that way, you can meet these strategic directions both onshore and this is for offshore. So, you have to focus on this.

So, these are your strategic alternatives, you are generating alternative, strategic opportunities, portfolios, these are the portfolios, you have to develop, and it requires huge investment, this we will be talking about later on investment part on it. So, this way, you are generating a lot of opportunities and alternatives.

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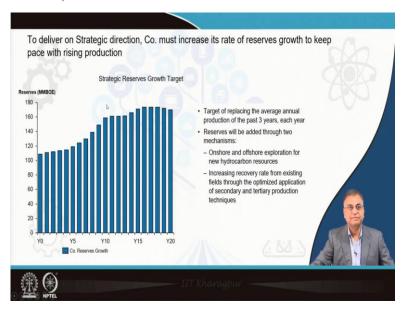


So similarly, this is for the non-associated gas. So, this is in one field, that is, two fields. This green is the XX non-associated gas field, another YY and another field. So, this red line is the

strategic direction; that strategic direction says that in year 9, year 9, your production has to ramp up to some 400 million cubic feet per day, and by year in year 18, it has to be 500 years 19, it has to be 500. That has to be ramped up.

So, and you can see why it is starting, why seven before your strategic direction, that company when you do they were doing the strategic plan after the strategic plan was submitted, the company found that with aggressive exploration and production activities, they can pre pawn or they can advance the production in year seven that is why it was given.

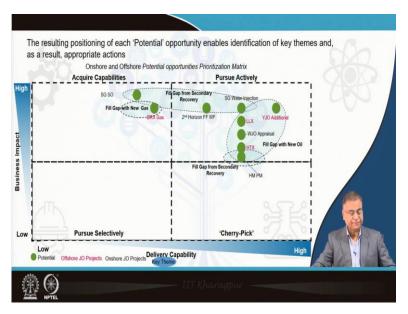
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So, similarly, this is for the reserve's accurate acquisition or addition to delivering the strategic direction company must increase its rate of reserves growth to keep pace with the rising production; your strategic direction was 100 per cent replacement of reserves what you are producing. You have to add reserves to that. Then how do you add reserves? You add reserves through intensive exploration both onshore and offshore by that.

What do you do? You can strike a new oil and gas field then your discovery means your discovery is successful. You can add it, but that is very uncertain. Another way of increasing this is increasing your reserves by recovery rate from the existing field through optimised applications of secondary and tertiary production techniques. So, you increase those that recovery of the oil and gas increases. So, that way, you are increasing your oil and gas reserves.

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So, after doing this, what do you do? Now, you apply your see. Just go through it the diagram you apply. You have learned those different techniques, portfolio matrices and all. So, you apply that BCG matrices along with your technical, economic and organisational capability.

So, here this figure shows the resulting positioning of each potential opportunity these are whatever you have identified those potential opportunities, you are doing is a say two by two matrix. One is the business impact versus the delivery capability of the organisation. This business impact consists of several sub-factors; those sub-factors may be strategic position, strategic directions, economics, and delivery capability is also several sub-factors.

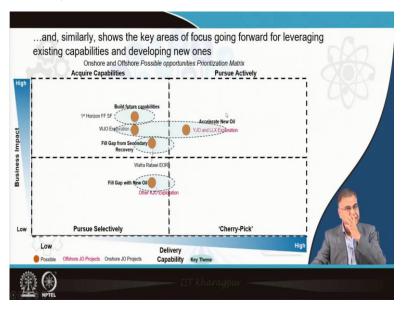
It may be the organisational capability, it may be the enablers, and it may be the other many factors. I am not going to say this to you because of some confidentiality. So therefore, with this, you can see that similar to the BCG matrix, your delivery capability is high, and business impact is high. So, these are the opportunities which you will pursue actively because these are those similar to your star businesses; these are the stars.

So, the business impact is high, but your delivery capability is low. So, this is the say your question marks and all. So, similarly, you put your where does your these different opportunities, different portfolio these each oil field, and the projects are a portfolio part of your portfolio.

So, with this portfolio you have to maintain, you can this way prioritise your project in terms of your strategic meetings, strategic directions and your economics and also the technical capability and also your where it will put the company in positioning that strategic positioning. So, you prioritise these projects.

So, this is a simple showing, simple, but many calculations. Many things have been done to draw this because you have to do technical techno-economic analysis, then your capability analysis organisation, and you have to develop your in-house that capability to execute these projects. So, many things are involved; these are just the onshore and offshore potential opportunities and prioritisation metrics. This way, you will prioritise your things.

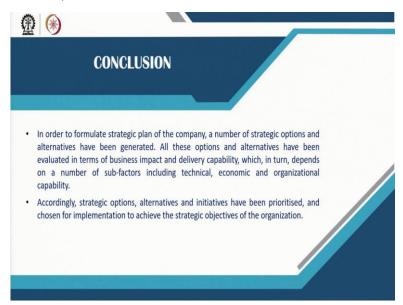
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Similar way, these are the key areas of focusing going leveraging capabilities and developing new ones; these are for your possible opportunities; those are the possible opportunities we have you are prioritising; you can see most of these, and this first horizon fulfils stem flood and all. These are those that thermal recovery we have found out rate part.

These are you have a high business impact, but you have a low capability, but you have to develop your capability to make these portfolios successful. So, this way, you prioritise both potential and possible opportunities; this is the way you are doing the that formulating your strategy. So, I will sum it up here.

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In this session, what we have learned is to formulate a strategic plan for the company, and some strategic options and alternatives have been generated. All these options and alternatives have been evaluated regarding the business impact and delivery capability, which depends on several sub-factors, including technical, economic and organisational capability.

Accordingly, strategic options, alternatives and initiatives have been prioritised and chosen for implementation to achieve the strategic objectives of the organisations. In the next session, we will be talking about these implementations of this that are important, we have formulated it, and now we will be implementing that.

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So, some of the references, the same references you can go through you, are aware of these references. We have shown it in the last session; also, these books are very useful. So, thank you very much for attending this session.