## Technology Transfer through Joint Venture Prof. Indrajit Dube Department of Humanities and Social Sciences Indian Institute of Technology, Kharagpur

## Lecture – 01 Forms of Strategic Alliance

I welcome you in the course called Technology Transfer through Strategic Alliance and Joint Venture. This course is divided into four modules. The first module is how to transfer technology through strategic alliance and joint venture. Within this module, I am basically discussing more of strategic alliance issues. The second model is on joint venture and I am going to talk on what are the joint venture options, types of the joint venture and what are the key compliance requirement in case of the joint venture.

In the third model, I will take you through the joint venture agreement and I will detail out the various aspect of the joint venture, option requirement, due diligence, reason for failure of the joint venture. In the last module, I am going to talk with you relating to the special purpose vehicle which might be the outcome of a joint venture or which is basically known as a formal set up. So, today my talks will be concentrated more on the strategic alliance and to be more specific, I will speak on form of strategic alliance.

Now, before I go to this strategic alliance and the technology transfer through the strategic alliance. Let me try to impress running of that why we need to have a strategic alliance for technology transfer or why people are giving more impasses now to transfer the technology through strategic alliance. Now, possibly all of you are aware of the fact that government of India initiated the program called Make in India. If you want to make this particular program successful, then we need to have a cutting edge technology which has been developed in the different part of the world because the product which we are generating, not only will be used in the domestic market, but it will also be exported to the international market and if it is not of a market standard or market bench marking, then possibly the product will not get the value into the market.

So, developing the technology through R and D is time taking, cost intensive and risk oriented. Many of the times you might have started r and d program to develop a particular technology and at the end of the day you will find that you could not find a desire result out of that particular R and D. So, if you wanted to absorb the technology in

a quicker sense, then the technology transfer is one of the easiest means to do that. Now, previously the technology transfer used to be done through the process of licensing or given some kind of permission of manufacturing under that particular licensing. But over the years it is understood that licensing has a lot of limitation, mainly whenever you are transferring that particular technology.

It is sometimes difficult for the host company who is receiving that particular technology could not absorb that particular technology within their own system. The reason might be, they know how which should be transferred to the host company or the firm is not been transferred by the form or the company who is basically transferring that particular technology or it might so happen that the local conditions is such that, that particular technology could not be observed within the organization. So, because of that most of the time even the technology has been transferred. The company who are basically receiving that particular technology could not develop that particular technology or could not produce the desirable product. We should come out of this particular technology.

The second important thing is that sometimes you need to customize the technology according to the local market need and customization of the technology is become order of the day in many market. Let me take the example of automobile sector. You will find the car which is manufactured in India having a separate specification of the car which has been manufactured in Europe by the same company. So, what is important here is that you might be using the same technology, but technology is need to be customized because of the local regulatory need, local cultural need and local market need. If you are using the same model and technology, people might not even like to buy or take that particular product in to the local market itself.

So, technology licensing which is to be quite acceptable standard for transferring the technology from one boundary to another boundary or from one jurisdiction to another jurisdiction and no more found to be a very suitable process of transferring the technology. You will find people are more and more moving towards the concept of strategic alliance which gives more flexibility into transferring the technology. It is giving a better protection to the transfer of the technology which has been given to the host company.

It is also helping the host company to absorb the technology over the time and it is helping the host company who are taking this particular technology to develop that particular technology further in the future and you know to share that particular future development of the technology to the original company who has basically transferred that particular technology. So, strategic alliance became more and more important for transferring of the technology.

Now let me take you through the different forms of a strategic alliance and before that let me try to talk with you relating to what do you mean by this particular strategic alliance.

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If you look into the set of understanding of the strategic alliance, it says that any agreement between two or more parties to collaborate with each other to achieve the certain objective. That means, whenever we are talking about the strategic alliance, it is a very flexible type of agreement between the two parties who are having a common objective to achieve.

Now, when you are using the term agreements here, it has a wider understanding than what you understand simply agreement under the legal perspective. The agreement under the law means which can be enforceable by the law, but when you are talking about agreement here, it can be even memorandum of understanding. Now, let me try to draw your attention in the type of things which people do under this strategic alliance.

Sometimes you will find people are entering into a memorandum of association, sometimes people are entering into memorandum of understanding.

People are entering into some kind of a partnership and are also entering into some kind of a joint venture and people even can go up to the merger and acquisition under this strategic alliance. So, when you talk about this strategic alliance, there is no such specific form relating to the strategic alliance. Strategic alliance can be hard agreement form or hard contract form or it can be simply a very loose relation between this two party.

So, when you are using this particular strategic alliance, it gives a flexibility to both the parties in that particular agreement to customize their requirement as per the market need, to customize the requirement as per the capital which is available or you know regulatory need of that particular country where they wanted to form this particular strategic alliance. Now, technology transfer through strategic alliance has certain features which you get out of this particular process.

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## Technology Transfer through SA

- The cost of acquisition is low
- Obtain such technology as will enable the SA participants to forego R&D and therefore avoid huge R&D expenditure. This will be a huge benefit especially in case of research aimed at product development as it is very costly
- It should allow the exercise of greater control over the technology. This is not possible in case of Technology Licensing.

Like you know in case of the technology transfer through strategic alliance, the cost of acquisition of the technology is low when compared to licensing of technology. You are basically giving kind of equal opportunity to the person who is transferring the technology to participate into the profit making or even to accessing the market or for helping that particular partners who has transferred that particular technology to have understanding about the market where you are wanted to do this particular business.

So, many of the times you will find that if transferring the technology through the strategic alliances is cheaper, if you are transferring the technology through the process of licensing. Let me try to give some example to this particular technology transfer through the strategic alliance so that you can understand this particular process. Like in India, you will find that there are many companies which have come together to form a strategic alliance initially and then convert that particular strategic alliance in joint venture and later on created a special purpose vehicle to execute that particular strategic alliance. For example, Hero Honda, basically Hero has received the technology of the bike from the Honda and they have manufactured the bike for a substantial period of time, it is more than a decade and after that they have partnered with each other.

Now, what happened in this particular process Hero became Hero Honda, joint venture became a largest producer of bike in India. In fact, to put in another way round they have actually changed the pattern of the mechanical vehicle in India and previously people were not so fond of using the bike, but today we found that people are quite fond of using this particular bike and the credit goes to Hero Honda. Hero has actually absorbed the technology and you will find after a certain period of time Hero is parted from the Honda itself and Hero has started doing its own R and D and today Hero claims that they are one of the largest manufacturer of bike in India. In case of Honda, it was quite benefiting because Honda was a foreign company and they were not aware about the Indian market.

So, they could understand the Indian customer or Indian market properly and understand that how they can customize the technology for the Indian market itself. It was basically a scenario situation for both this particular party who has entered into a strategic alliance initially into this particular process. So, you will find that there are several examples of that, even you will find the partnership of Maruti and Suzuki, though Suzuki is holding company of Maruti, but you will find that today Maruti has become one of the important company in terms of technological development and to customization of the product or bringing the new product into the market.

You are also aware of this particular fact that Maruti is now manufacturing many of the Suzuki specifications or they are developing their own product and they are exporting that particular product to the international market after satisfying the demand in the domestic market. So, there are several examples you will find all across not only in

automobile sector because I gave the example only from automobile sector. You will find this example in pharmaceutical and in other sector also where in you know technology has been transferred, technology has been absorbed and then people have build up the R and D on that particular technology and they have created the new product out of that particular buildup and maybe you know we found both the partner started doing the business independently in the same market itself.

Second thing is that if you obtain such technology through strategic alliance, then you generally forgot the R and D and the R and D cost is a huge cost where the product is R and D intensive product. In case of the pharmaceutical if you wanted to bring some molecule, then you need to have a long time investment as well as the capital investment. At the same time you are not sure that at the end of the day the research in which you have commission will going to yield with a benefit reserve. So, at the end of the day you might find that you were not going to get a desired result. It is not possible for a small form or a startup to invest a lot in case of the R and D. So, it is better that they import the technology or they get the technology through the strategic alliance. They can build up that particular thing in a particular market itself.

Now, let me give you example of defense sector happening in today's contest. You will find that India until now is heavily relied on the defense equipment from its outside partner. Sometimes it is from Russia, sometimes you will find it is from United States and sometimes it is from Italy. But today the present government wanted to manufacture the defense equipment in the country itself, even though we have a very old organization which used to supply all the defense requirements known as webby. There is an ordinance factory board which used to supply all the security agencies whatever the weapons and the equipment they require for the surveillance and security. But over the years people understood that whatever they are producing those are not a market standard.

So, if you wanted to have a proper security and surveillance mechanism then you must have advanced missionaries like advanced gun, tank, and fighter jet. This particular government initiated the concept called offset requirement of manufacturing that means, government is assured that if you manufacture some of the equipment in this particular country then in that case government is going to buy a bulk from this particular manufacturing itself.

So, in this particular process government invited domestic business houses to manufacture and participate into these defense equipments. When the government had invited them, it was difficult for this domestic producer to immediately start the R and D to produce this particular equipment because if they start doing the R and D today, they might get the result may be another 20 or 30 years of time and then possibly they are going to manufacture the product. But what they started doing they started contracting the best manufacturing in the different part of the world and they started importing the technology from them to Indian trials so that they can manufacture some kind of advanced equipment which can not only be used in domestic market but even can be exported in other market.

Yesterday, I saw news in economic times where we found that f 16 which is one of the known fighter plane in the world and is manufactured by some U.S company. They are interested to manufacture in India and have found a suitable partner in India. Now, while you know the CEO of this company, given the interview he has mentioned that they have chosen India because the cost of production of this particular fighter jet will be much cheaper than what they produce in America because India do have a technical manpower. They do have the raw material and resources plenty available in the country and it will help them to produce the product which can be sold into the developing market or even to other market which are not developed.

So, they are thinking about the cost cutting in production of this particular fighter jet. If you can bring down this expenditure relating to R and D, then in that case you can bring the product which is much competitive in price compared to other country where the cost of product is very high because of the labor or some other conditions.

The last one is that if you are transferring the technology through strategic alliance then you can even have a control over that particular technology itself which I was mentioning before as absorption over the technology. I was talking with some of the PSUs- Public Sector Undertaking and they were narrating their story of technology absorptions from the Russia. They told me that they have basically got the license of couple of product and there was a huge documentation of those particular licensing, but at the end of the day when these years of collaboration has got over, then these people who has transferred the technology they actually withdraw their manpower from the factory or the establishment where they used to manufacture that particular product and

when they ask them to train the local manpower so that they can keep on producing those particular equipment which was under those you know licensing agreement and they actually denied to do that particular thing.

So, what I am trying to draw in your attention that may be their technology has been transferred by this licensing but they never transferred to know how or how to manufacture or develop the particular product in India or in this particular country. Even if you have spent lot of money, paid a lot of royalty because of this particular licensing, but at the end of the day you could not absorb that particular technology because the crucial information which is required for production of that particular product under that particular technology is not been transferred to you.

So, if you are transferring the technology through the SA or strategic alliance, you have a better control over that particular thing because what do you do at that particular point of time you also try to train the local manpower who can participate in manufacturing process even when this particular period got over, they are sufficiently trained how to manufacture this particular thing or even you can start the R and D or whatever has been transferred to you through this strategic alliance.

Tomorrow, if your partner says goodbye to you, you have sufficient strength to develop your own technology or develop your own product into this particular market. Strategic alliance gives a better edge to absorb the technology within the organization. Now, the question is what are the forms which might be there in case of the strategic alliance, there can be a spectrum of forms which can be used for strategic alliance as I have told in the beginning it can be simply understanding to as formal as set up as a merger and acquisition.

So, strategic alliance maybe like in the form of MOU- Memorandum of Understanding. It can be memorandum of associations also, it can be a partnership, it can be a joint venture and you can even acquire a company or you can even march with a particular company. A wide range of form of business is possible. Let me try to keep bit of understanding about all this particular form.

Now, when we are talking about memorandum of association, we tried to mean that it is a kind of a loose agreement between or memorandum of understanding is a kind of loose agreement between the two organization relating to sharing of profit and technology and there might be kind of understanding that the person who is receiving the technology he or that particular organization is going to give a adequate protection into the market where they are going to develop the product and sell the product. When we are talking about the partnership there might be a little more liability on both the part, it might range from the tax liability to the product liability.

Even the third person can come tomorrow and show both these particular organizations who have participated in this particular partnership. So, partnership is a bit of a formal setup or formal organization than that of a memorandum of understanding or memorandum of association. If you talk about the joint venture then in that case it is basically a formation of a company as a result of the joint venture. You will find that you might incorporate a special purpose vehicle at the result of that particular strategic alliance which has gone up to the joint venture and if you are going for acquisition it might so happen that the foreign company who is transferring the technology, they come and make an equity investment into the company while they are transferring this particular technology or even sometimes it can be a joint venture that means, some subsidiary of the foreign company which is basically transferring the technology gets merged with the company which is receiving this particular technology.

So, by this particular process they can have kind of control over this particular management where they are transferring this particular technology. At the same time, the company who is basically receiving the technology they have better grip over the technology if they are receiving out of this particular process. So, this is all about the forms of strategic alliance, we are going to take you in the next part about how we can go for a negotiation and what are the contractual aspect one need to understand when they will go for strategic alliance.

Thank you.