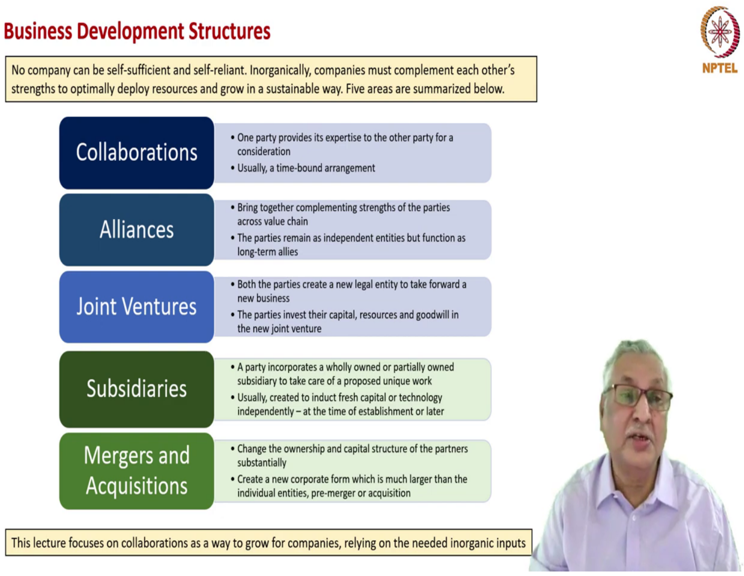
Business Development from Start to Scale
Prof. C Bhaktavatsala Rao
Prof. Ajit Singhvi
Department of Management Studies
Indian Institute of Technology, Madras

Week - 09
Business Development Structures
Lecture - 41
Collaborations

Hi friends, welcome to the NPTEL course Business Development from Start to Scale. We are in week 9 with the theme of Business Development Structures. In this lecture, the 41st in the series, we discuss the topic of Collaborations.

(Refer Slide Time: 00:27)



Why do we need Business Development Structures? Business development is basically a process, a process of providing connectivity between 2 entities, an entity and an individual or 2 individuals. This happens not merely, because of the process; it also happens because there is a platform and structure.

Usually, there is an internal platform called business development department, which makes this kind of initiative take place in the normal course of business. But business development always looks at doing something different, doing something which is growth oriented.

And for that to happen and for that to be institutionalized, we require certain platforms or entities. And business development structures are those platforms and entities which are useful in embedding business development as part of an institutional framework. As we have seen so far, no company can be self-sufficient and self-reliant across all its value chain.

Inorganically, companies must complement each other's strengths to optimally deploy resources and grow in a sustainable way. Companies will also have to look at overcoming their weaknesses through collaboration, through alliances and various methods. I summarized below 5 areas by which we can have business development structures with appropriate contextual settings in each case.

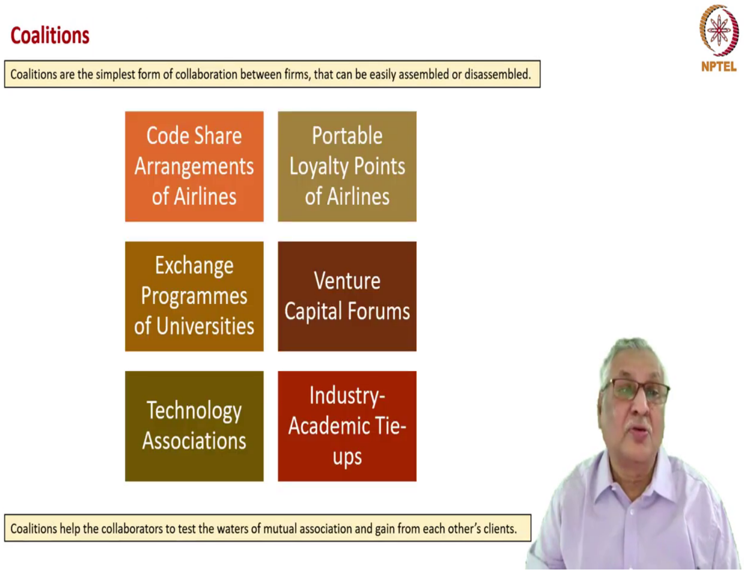
The first is Collaborations. In this mode of business development structure, one party provides its expertise to the other party for a consideration. Usually, it is a time-bound arrangement. Alliances are the second methodology of business development structuring. Alliances bring together complementing strengths of the parties across value chain. The parties remain as independent entities, but function as long-term allies.

In terms of ownership structure, they would be different. But in terms of business alignment and in terms of functional alignment, they would function as though they are 1 entity. That is the ideal state of an alliance. The third platform is the joint venture platform. Joint ventures are those in by which the parties create a new legal entity to take forward a new business. The parties to the joint venture typically invest their capital, resources and goodwill in the new joint venture.

Then we have subsidiaries. In this mode, a party incorporates a wholly owned or partially owned subsidiary to take care of a proposed unique work. In this case, it is not necessary that there would be another partner which would form a part of a subsidiary. However, it is not ruled out either. It is usually created to induct fresh capital or technology independently. At the time of establishment or later, in this case, there would be another party, which is involved and that party could be another company, another global entity or a private equity partner and so on.

The fifth one, again one of the more fashionable ones in the business development, structural development, is the mergers and acquisition platform. Mergers and acquisitions typically called M and A change the ownership and capital structure of the partners substantially. They create a new corporate form which is much larger than the individual entities corporate forms, either pre-merger or acquisition. This lecture focuses on collaborations as a way to grow for companies relying on the needed inorganic inputs.

(Refer Slide Time: 04:14)



Coalitions are the simplest form of collaboration between firms and these can be easily assembled or disassembled. The 6 types of coalitions that I have described here are all part of our normal practical experiences. Code share arrangements of airline's that is they operate an airline, but the codes are different.

So, they give the opinion to the traveler that you are travelling on different airplanes, but they may not be the different airplanes at all or you can have one airline by which you are travelling, but once you transit you will have a different kind of airline taking you to another destination. That is because of the code share arrangement.

Lufthansa operates several flights from US to India via Frankfurt. The travel from any US city to Frankfurt would be let us say by United Airlines and travel from Frankfurt to India will be by Lufthansa. In both these cases there could be actually a United Airlines flight which has a code share arrangement and people who book by United Airlines can come on to the airline and vice versa.

The other way of coalition is through portable loyalty points of airlines. That is if various airliners or members of one particular grouping whoever travels through any other airline gets loyalty points based on the subscription the individual has made to the airline's loyalty point program. We have exchange programmes of universities that is you study in IIT Madras as an example and then you have an arrangement with Purdue University for mutual exchange of students or information or lectures.

The other way of coalition is venture capital forums. Keiretsu is a great example, where all the high net worth individuals come together and it is an platform, it is an organization, which receives startup proposals, analyzes the startup proposals, but leaves the decision to the individual participants of the venture capital forum to decide whether to invest or not.

There could be a venture capital forum which also says that you pull in the money I will distribute the money on your behalf that is also possible. Then we have technology associations and we also have industry academic tie ups; when you have technology associations which are institution of industrial engineers, institution of electrical engineers and the things like that.

When you have industry academic tie up when a particular industry collaborates with an academic institution to set up a particular line of research or a particular type of infrastructure that becomes an industry academic tie up. Coalitions help the collaborators to test the waters of mutual association and gain from each other's clients.

(Refer Slide Time: 07:22)

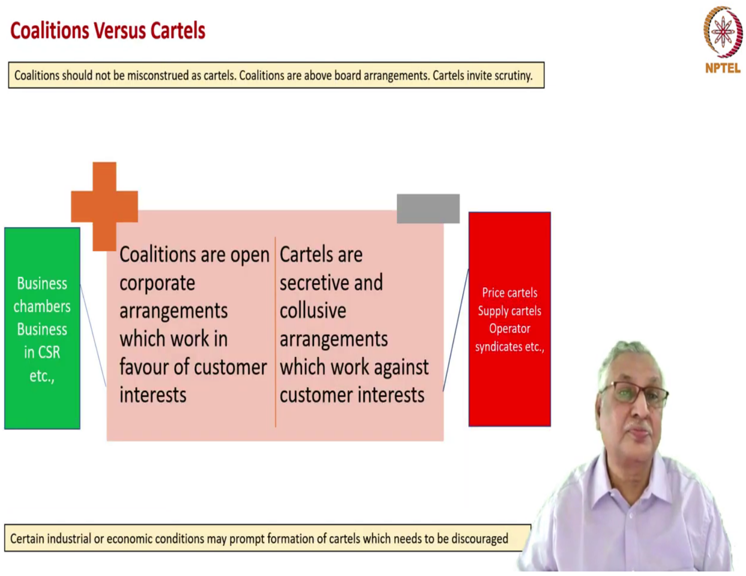
Coalitions are simple. They enable each member of the collaboration of a respective strengths for the benefit of all the members. Here you see several coalition examples. Star Alliance is a coalition in the airlines industry. Similarly, flying returns being a Star Alliance offshoot is a coalition arrangement for portability of loyalty points.

United Mileage Plus is another coalition of different airlines. Singapore Airlines has Kris Flyer. One world is another airline's aspect. Europeans have Sky Team. Value Alliance again is another smaller coalition. But the important fact of these coalitions is that the code share arrangements and loyalty programs of different airlines help in positioning each of the constituents in the traveler's mind space with better global connections and improved loyalty points.

Typically, a member airline remains as an exclusive member rather than become a member of multiple programs. That is A member operating Star Alliance would necessarily be operating Star Alliance and would not be a part of Kris Flyer as well because there is some level of exclusivity which exists in the coalition framework.

Coalitions make customers build loyalty to the airline brands and routes. Back-end code shares also further enhance the advantage. They cascade the business arrangements through either good handling collaboration or through ticketing collaboration or through mapping collaboration, various other things that could exist in terms of strategic sourcing of inputs as well. For example, fuel.

(Refer Slide Time: 09:10)



Coalitions are not same as cartels. You would have heard the term cartel. Therefore, we should not look coalitions as coalitions. We should never misconstrue them as cartels.

Coalitions are quite legal and above-board arrangements whereas, cartels are not necessarily legal. They invite glittery scrutiny.

Coalitions are open corporate arrangements which work in favour of customer interests. Cartels are secretive and collusive arrangements which work against customer interests. When a cartel works without the knowledge of the governments and the regulatory agencies, we call such arrangements as collusive.

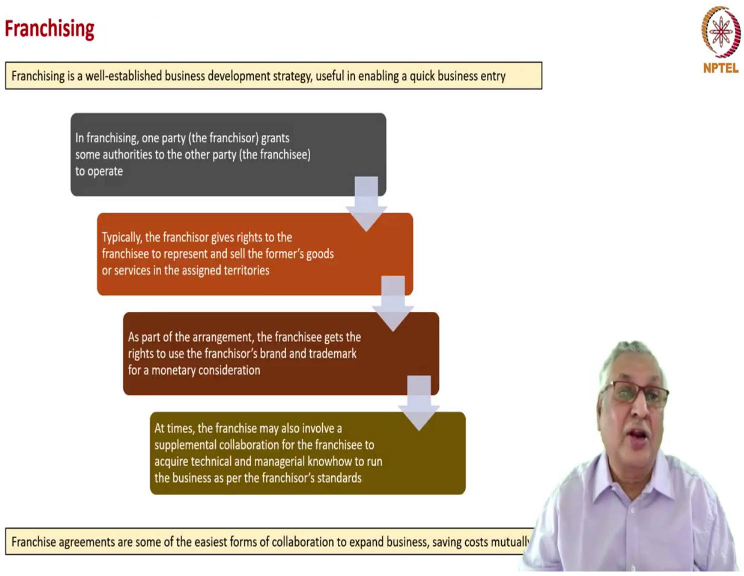
For example, price fixing cartels that is firms which are operating in a marketplace may secretly meet and decide that they will hold the price at a high level. Even when the prices of raw materials are falling down, the companies which are parts of cartels can say that we will not reduces the price. This is; obviously, anti-consumer.

Price cartels, supply cartels, operators indicates these are examples of cartels. But on the other hand, coalitions are open corporate arrangements. They help the customer have better deals out of the coalitions. We talked about the loyalty points. We talked about mutual exchange programs.

Similarly, when all the companies in a particular industry come together, it becomes a coalition program, because they are exchanging information. They are seeing how technology could develop. They are seeing what are the business issues and how governments can dissolve. So, business chambers, business operating in the corporate social responsibility areas, such forums or coalitions.

Certain industrial or economic conditions may prompt formation of cartels which we discussed. We have OP, this is organization of petroleum exporting countries based in the Middle East. In At one level, it is a cartel. But at another level, it is also a coalition, because that particular organization has been formed to manage the volatility in supply and pricing.

(Refer Slide Time: 11:32)

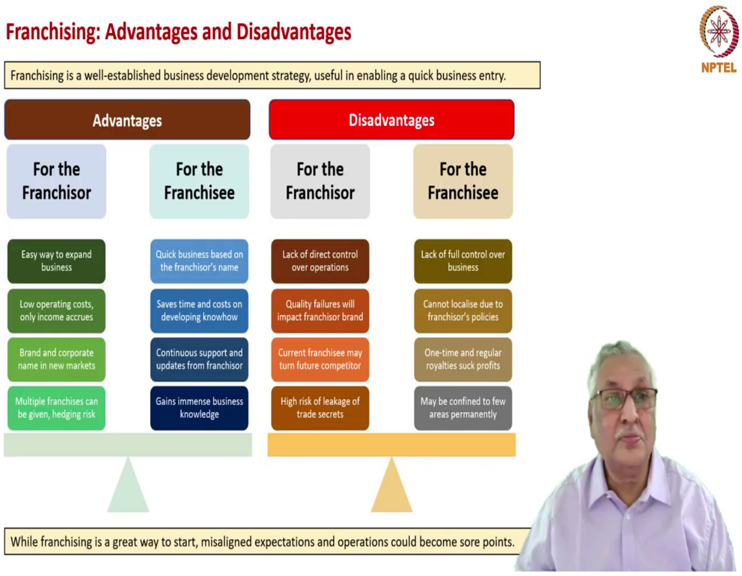


So, it has a semi-legal status as I can see this. Franchising is another well-established business development strategy within the total ambit of collaborations. It is useful in enabling a quick business entry. In franchising one party called the franchiser, grants some authorities to the other party, the franchising to operate.

What are those authorities? The authorities are rights to the franchisee to represent and sell the formers goods or services in the assigned territories. As part of the arrangement, the franchisee gets the rights to use the franchisor's brand and trademark for a monetary consideration.

At times, the franchise may also involve a supplemental collaboration for the franchisee to acquire technical and managerial know-how to run the business as per the franchisor's standards. Franchise agreements again are some of the easiest forms of collaboration which help in expansion of business saving costs mutually.

(Refer Slide Time: 12:32)



Let us look at the advantages and disadvantages of franchising which is a well-established business development strategy. The advantages and disadvantages occur both for the franchisor and for the franchisee. Let us look at the advantages first. For the franchisor, the advantages are they represent an easy way to expand business. They entail low operating costs and the franchisor gets only income.

Similarly, the franchisee also gets income. There would be brand and corporate name in new markets. A franchisor who is not present in India gains by virtue of the franchise, because the brand and corporate name gets known. Similarly, a franchisee who is not operating in the business or not having that particular product line gains visibility as a franchisee displaying the brand and corporate name of the franchisor.

So, there is an association in the customer's mind of some superiority getting transferred to the franchisee. There can also be multiple franchises which can be given hedging risk for the franchisor. Similarly, the franchisee can take multiple franchises to hedge risk. For the North Indian portion, you can have one franchise and for the South Indian portion of the country, you can have another franchise.

What are the advantages for the franchisee? The franchisee gets quickly into the business based on the franchisor's name. There is no brand building required of any significant extent. It saves time and costs on developing knowhow. There will be continuous support and updates from the franchisor and the franchisee gains immense business knowledge.

But what are the disadvantages? Of The franchisors, these are lack of direct control over operations, because you are operating remotely. You trust the franchisee to deliver based on the agreement. Quality failures if they occur will impact franchisor brand. Current franchisee may turn a competitor in future. That is one of the biggest disadvantages for the franchisor, not necessarily for the franchisee. It is an opportunity for the franchisee.

There could be high risk of leverage in terms of trade secrets for the franchisee when the franchisee gets into the competitor mode. The leakage of trade secrets is one of the biggest risks for the franchisor in the franchisee mode. For the franchisee, the disadvantages are lack of full control over business. Franchisee typically operates in an environment with which the franchiser is not familiar with.

So, the franchisee may like to localize or adapt in a particular manner, but the franchises may not agree to that. In which case, there would be lack of control over the business and therefore, the impact of the franchising arrangement in terms of business will be lower. Then the localization itself can be hemmed in by the franchisors policies. That is, I will not have any product which is outside of my standard product menu.

In which case, you cannot cater to the local requirements. The third one is that there could be huge outgoes of royalties related to franchising arrangements. And the profitability of the franchisee may be impacted. And these royalties could be based on profits or could be based on sales. In case the royalties are based on sales, which usually is the case, the profit deployment for the business will be lower, because most of the profit could be taken away, because of the sales and the operating costs remain.

Whereas, if you have royalty based on the profitability, probably it would be more equitable, but generally the franchises do not allow that kind of arrangement. Again, when you go into a franchisor franchisee arrangement, the franchisee may get limited to a particular area or particular set of areas.

And that could be permanent, in which case the ability of the franchisee to expand will become very limited. I have discussed that the franchisor could have multiple arrangements in multiple geographies or in multiple product lines, in which case the caging in of the franchisee would happen. While franchising is a great way to start a business, misaligned expectations and operations could become the sore points between the franchisor and the franchisee.

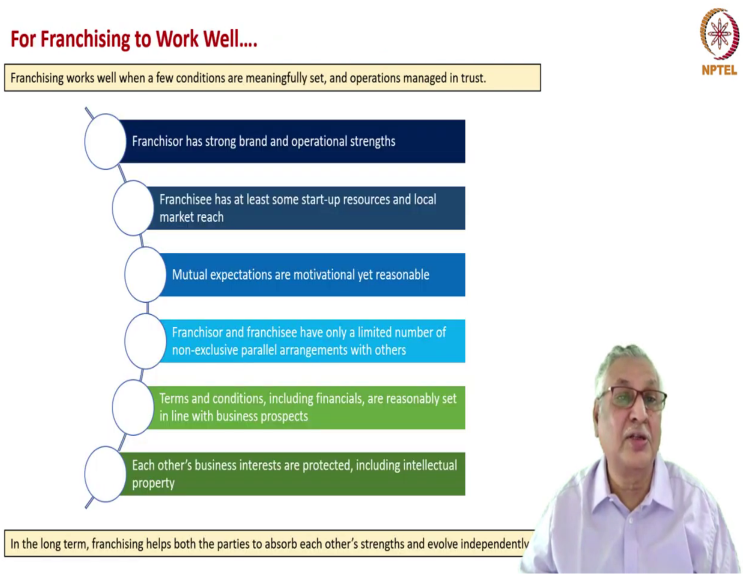
(Refer Slide Time: 17:04)

We have seen in the franchising examples of India, how conflicts took place between one partner and the franchisor. Typically, franchising works well in hotels, hospitality and hospital industrial sector as evidenced in the Indian situation. We have Apollo Hospitals, which franchises its brand and also manages.

We have hotels, which franchise their brands, but also provide management support. Examples McDonald's, Domino's and Subway in the food area, Sheraton, Patanjali, FirstCry in hospitality and consumer goods areas again, Lenskart, Archies and Apollo Hospitals in consumer as well as healthcare sectors.

In addition to this, franchising works well in automobile and FMCG dealerships or distribution arrangements. You can see many dealers having the brand of the automobile manufacturer. If you are a Toyota dealer, you would have Toyota brand on all your correspondence, all your visiting cards and various display units. It provides power to the dealer and that franchise has got its own sets of conditions, terms for the dealership to work effectively.

(Refer Slide Time: 18:20)



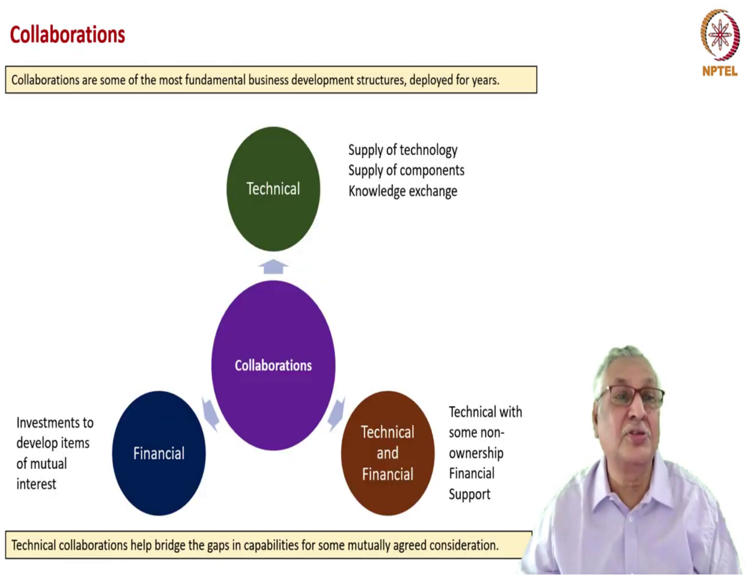
So, how does franchising work? Well, it works well when a few conditions are meaningfully set and operations are managed in trust. The condition one is that franchisor must have strong brand and operational strengths. Similarly, if franchisee must have at least some startup resources and local market reach, you cannot take somebody who is completely naive to business and hope to do a good franchising arrangement.

Mutual expectations are motivational, but yet are reasonable. Franchiser and franchisee have only a limited number of non-exclusive parallel arrangements with others. I will discuss that franchiser can have different geographical and product-based franchising arrangements and so can the franchisee. But if they have too many of these things, the whole impact of franchising will get diffused and eroded.

Terms and conditions including financials must be reasonably set and must be in line with business practices as well as business prospects. There is no point in having a 20 percent royalty rate when the business is uncertain and there is lot of time that is involved in building up the business or when there is lot of competition.

Each other's business interest must be protected including intellectual property. In the long term, franchising helps both the parties to absorb each other's strengths and evolve independently. So, it is a great way to start. It is much more robust compared to coalitions.

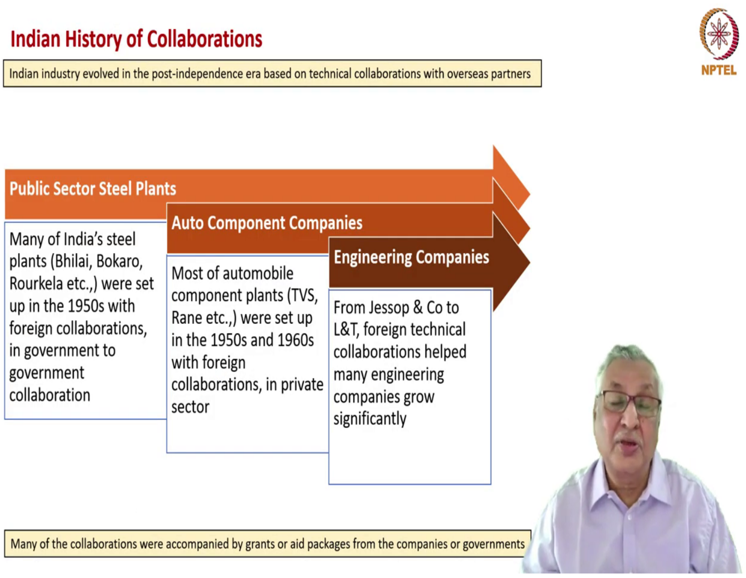
(Refer Slide Time: 19:51)



Then let us look at collaborations. These are some of the most fundamental business development structures that have been deployed for years. There are 3 types of collaborations that are possible. One, a pure technical collaboration that involves supply of technology, supply of components and exchange of knowledge.

The second type of collaborations is financial collaboration investments to develop items of mutual interest. And the third set of collaborations is technical and financial that is technology along with ownership financial support. Technical collaborations in particular help bridge the gaps in capabilities for some mutually agreed consideration.

(Refer Slide Time: 20:34)



What does that happen before we do that consideration? Let us look at the Indian history of collaborations. Indian industry evolved in the post-independence era based on technical collaborations with overseas partners. Let us look at the case of public sector steel plants.

Many of India's steel plants, Bhilai, Bokaro, Rourkela, Durgapur all were set up in the 1950s with foreign collaborations. In government to government mediated collaboration frameworks then we have several auto component companies which grew post-independence in India. TVS, Rane are primary examples. These were set up in the 1950s and 1960s with several foreign collaborations based on product lines and these were basically in the private sector.

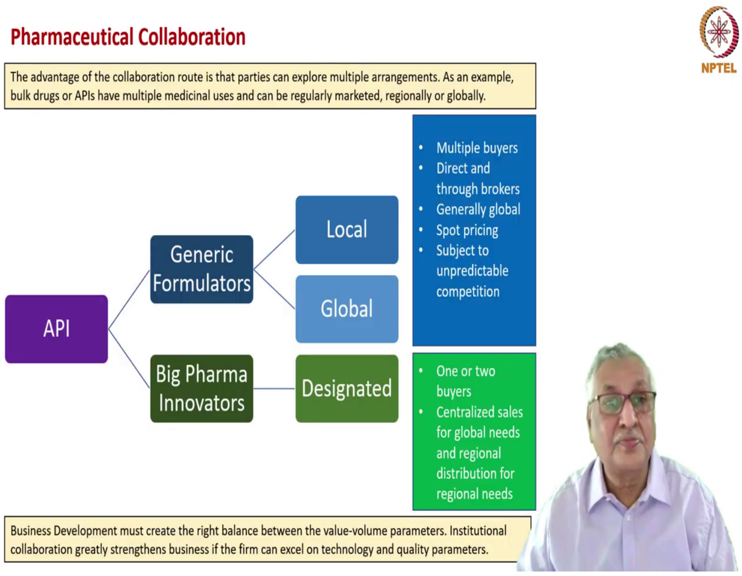
Then we have engineering companies. Jessop and Companies is a famous heavy engineering company. L and T is the construction giant. These companies had foreign technical collaborations and these collaborations help this is engineering firms absorb newer modes of technology and become sub-sufficient on their own over a course of time.

And importantly, this is were important in the post-independence era, because the governments needed funding to make this happen. Many of the collaborations were accompanied by grants or aid packages from the companies or governments. And this has not gone away as a trend.

When we have bullet train between 2 important cities of India that is Ahmedabad and Mumbai, we require not only the bullet train technology, but we also require a grant by the Japanese government to be able to finance the massive investment that is required for a bullet train project.

So, the modality of techno-financial collaboration at the government level continues and will continue to grow. And similarly, India provides such techno-financial collaboration to various other countries and Indian private sector as well as Indian public sector or parts of such government-to-government collaborative arrangements.

(Refer Slide Time: 22:43)



Let us look at an example from the pharmaceutical industry. In pharmaceutical industry, particularly the advantage of the collaboration route is that the parties can explore multiple arrangements. That is applicable for many industries as well. For example, in automobile industry, you can have a collaboration for 2 wheelers. You can have within 2 wheelers only for scooters or motorcycles. You can have a collaboration for 3 wheelers, for 4 wheelers and so on.

So, as many product lines as you have, there could also be as many collaborations. In the pharmaceutical industry, the example is as follows. We have in pharmaceutical industry, active pharmaceutical ingredients or bulk drugs. They have multiple medicinal uses. The medicine which we take is basically at bulk drug substance.

Suitably encapsulated, suitably, tabletized or suitably put into wire. And these products can be marketed regionally or globally. So, as an API manufacturer, you have a possibility to collaborate with a two types of companies. One is generic formulator, that is somebody who is offering an off-patent product. Or you can offer it to big pharma innovator who would take the product of API during the patent protection stage or may even continue thereafter.

And the generic formulators could be local or they could be global. When you look at these generic formulators as your business collaboration canvas, the opportunity for you as an API manufacturer or that you have multiple buyers for your product. You can go direct to the companies or you can go through brokers.

And the impact of global generic formulators on the industrial business development is far greater, because the global market is so much higher. And also, the country itself, that is India itself is known as the pharmaceutical capital of India. Therefore, there is that much higher business canvas that is available.

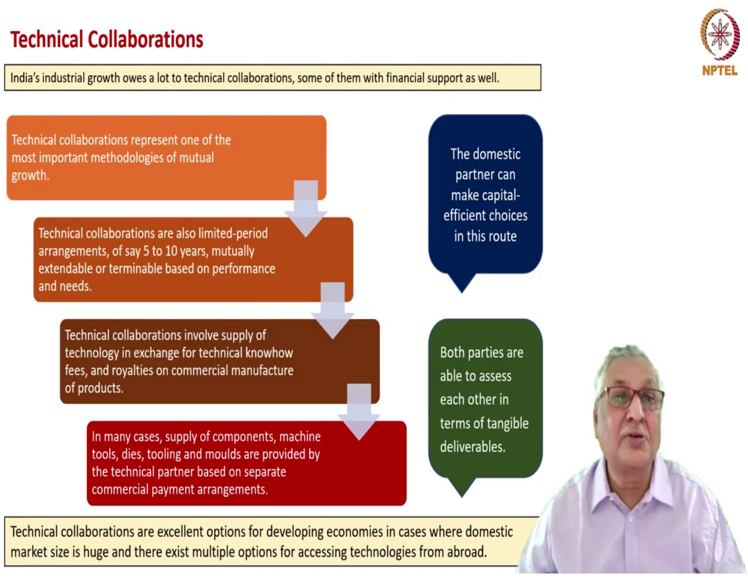
But we have to be careful that it is all spot pricing. Same thing happens when we are trying to have a collaboration for import of any of the crude oils such as Sunflower Oil or Palm Oil. Spot prices dictate much more than the long-term arrangements you may like to have. So, these are the specific nuances of collaborations.

And within collaboration you can have unpredictable competition, because collaboration is not a legal arrangement. It is a practical arrangement it is having some kind of long-term vision, but at the same time it is not so, rigidly fixed. Therefore, if somebody else offers a lower price or better quality, the buyer may switch from your product to another product. Therefore, there is unpredictable competition that could influence collaboration in its direction.

Then when you look at big pharma innovators, you have very designated methods of collaboration. Typically, such companies have long-term arrangements in place. They would look at 1 or 2 buyers. There would be centralized sales for global needs and regional distribution for regional needs. While the bargaining power of the big pharma innovators is much better and much higher, you also have an advantage in terms of having more stable regime in terms of supply.

But at the same time comes with the responsibility of higher quality and better supply chain management. So, business development must create the right balance between the value and volume parameters. Institutional collaboration greatly strengthens business if the firm can excel on technology and quality parameters. So, that is the bedrock of good pharmaceutical collaboration.

(Refer Slide Time: 26:18)



Now, let us look at technical collaborations. As I said India owes a lot to technical collaborations in terms of industrial growth that has happened. And some of them have had financial support as well. Technical collaborations represent one of the most important methodologies of mutual growth. It was important in the 1950s and it continues to be important in 1990s as well as in 2020s, because technology gets developed in various places of the world. We also developed technologies.

Similarly, other developed countries developed technologies. Those technologies are important for emerging markets. And we cannot hope to develop all the technologies organically when they are available on a platter elsewhere. Technical collaborations are also limited period arrangements of say 5 to 10 years. Mutually extendable or terminable based on performance and needs.

So, they are reasonably fixed, but not rigid. Technical collaborations involve supply of technology in exchange for technical knowhow fees and royalties on commercial manufacture of products. Why does a technical collaboration take place? A technical collaboration takes place, because you are going to use the technology to manufacture a component or a product and market those components or products.

Therefore, there is a steady commercial flow that would happen. But from the point of view of the provider of technology the provider has already spent lot of money in terms of developing the technology. But that needs to be compensated, but cannot be compensated in whole.

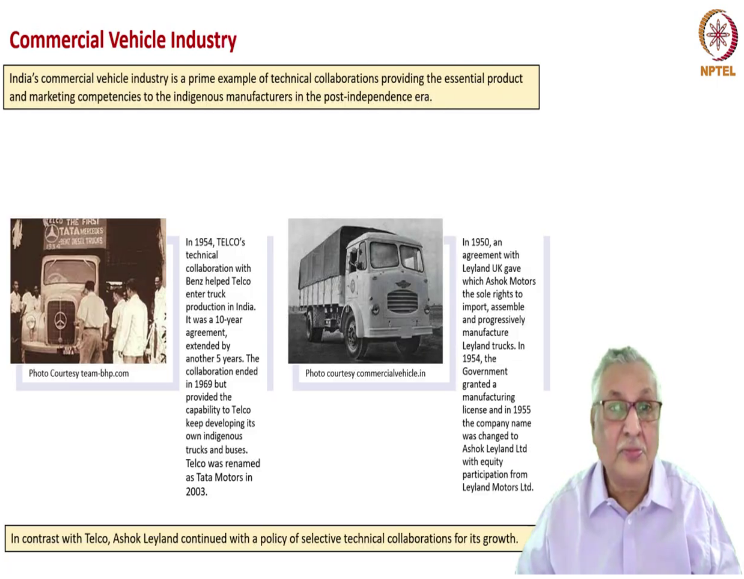
So, you require a reasonable knowhow fee which is provided upfront. And we do not know whether the technology will actually function the way it is I would say therefore, you would have a running loyalty which is linked to the commercial success.

So, there is there are 2 components always for technical collaborations. In many cases supply of components, machine tools, dies, tooling and molds are also part of a technical collaboration and these are typically offered based on parallel commercial payment arrangements. The advantage of technical collaboration route is that the domestic partner can make capital efficient choices in this route.

You do not have to tie up all your technical needs to just one manufacturer. You can choose the best source of technology and also the appropriate financial arrangement in terms of knowhow fees and royalties for different parts of your business. The other advantage of technical collaboration is that both parties are able to assess each other in terms of tangible delivers.

Delivery on basis of the technology, delivery on the basis of indigenization and business performance; technical collaborations are excellent options for developing economies in cases where domestic market size is huge as in India or China and there exists multiple auctions for accessing technologies from abroad.

(Refer Slide Time: 29:24)



Let us take the example of commercial vehicle industry. India's commercial vehicle industry that is the truck and bus industry is a prime example of technical collaborations providing the essential product and marketing competencies to the indigenous manufacturers in the post-independence era. Prior to independence, we never had a truck and bus industry of our own.

So, in 1954, Telco's technical collaboration with Benz helped Telco enter truck production in India. It was a 10 year agreement which was extended by another 5 years. The collaboration ended in 1969, but provided the capability to Telco to keep developing its own indigenous trucks and buses. Telco was renamed as Tata Motors in 2003.

In this photograph, you can see the first Tata Mercedes Benz diesel truck which was unveiled in 1954. It’s called normal control vehicle, long-nose vehicle, just a call not a full-fledged cab. You can see what Tata manufactures today in terms of its fully built trucks. It is a sea change, but that foundation for the technological development came from the initial technical collaboration and from the ability of Tata Motors to absorb the technology and become a leader on its own.

We have another example in the truck and bus industry of Ashok Leyland. In 1950, an agreement with Leyland and UK gave Ashok Motors the sole rights to import, assemble and progressively manufacture the famous Leyland trucks. In 1954, the government granted a manufacturing license and in 1955, the company name was changed to Ashok Leyland limited with equity participation from Leyland Motors Limited.

And you can see the truck that was launched in 1950s which of course, was modern at the point of time. And you can see the trucks that are being launched in India by Ashok Leyland again you see change. That happened because of the basic competence provided through the technical collaboration and the ability of Ashok Leyland to provide broader technological foundation through additional supplemental technical collaborations and make the product superior over time.

So, in contrast with Telco, Ashok Leyland continued with a policy of selective technical collaborations for its growth. Tata Motors ended the collaboration journey in 1969 and focused on indigenization. Ashok Leyland also focused on indigenization, but kept on infusing updated technologies from time to time to be able to be ahead of the curve.

(Refer Slide Time: 32:07)

So, Ashok Leyland collaborations are as follows. It started as I said with Leyland collaboration, but thereafter, the company got the Synchromesh gearboxes from ZF. The company had constant mesh technology for gearboxes at that point of time. Then it got in the Hino diesel engines which were world famous W series 4 and 6 cylinder diesel engines and those engines are still running successfully with the updation in Ashok Leyland product portfolio.

It also got 6-cylinder diesel engines from Iveco, a company that owned Ashok Leyland along with Hinduja Group for a limited period of time. But it also had a collaboration with AVL, a famous development engineering company based in Europe for developing diesel engines for

Euro standards. There is Euro emission standards. It had a collaboration with Nissan for light commercial vehicles. We will talk about this little later as well.

Now, it has signed a collaboration with Indian Institute of Technology Madras for electric vehicle battery technology and it also has arrangement with Sun Mobility for electric vehicle solutions. So, Ashok Leyland has a slightly tweaked collaboration strategy and that also is serving the company in a nice manner.

(Refer Slide Time: 33:24)

A partner-corporation relationship could actually be a much larger relationship than supply of technology or earning of knowhow fee and royalties. A partner-corporation may market its technology for a consideration under a technical collaboration.

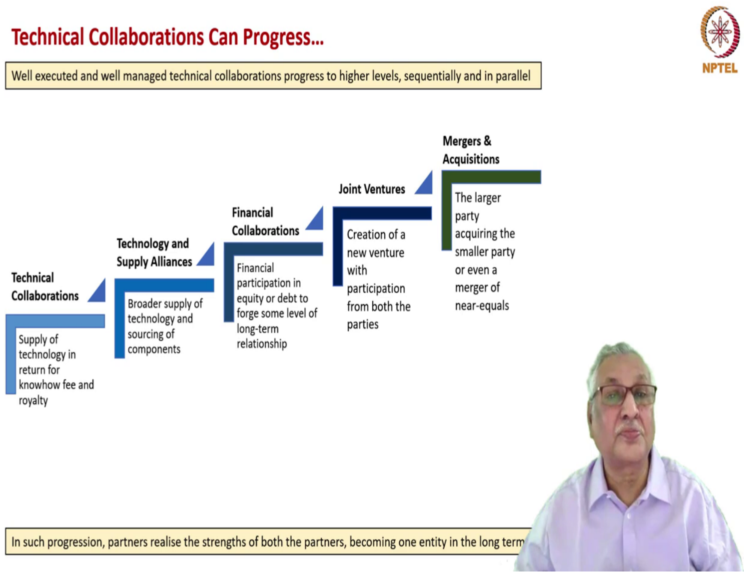
But may also seek a larger benefit in terms of sourcing of components after indigenization of the technology, because India has the ability to indigenize the components of a product that is technologically licensed and those components can be supplied at attractive prices to the global partner.

Many companies which came into the car industry in the 1990s and in the 2000s and thereafter are exporting their products, which have been manufactured in India using the technology of the foreign partner; here are the cases that of Ashok Leyland and Hino motors, Hino supplied as I said W series Indian technology. It also supplied certain components as part of the phase manufacturing program. All of these are indigenized.

Now, these components are now being exported to Hino and that has been made possible, because of the balance that exists between business development of one company that is Ashok Leyland and strategic sourcing of another company which is Hino motors. Business development of a corporation therefore, aligns very well with strategic sourcing of the partner-corporation and that is the greater value that arises from a technical collaboration.

And that also happens, because the supplier of technology knows very well that the technology is solid and the supplier also sees the technology getting effectively indigenized by the partner. Therefore, there is that much greater confidence in taking components from the collaboration rather than through open bidding process from the global supply situation.

(Refer Slide Time: 35:22)



Technical collaborations definitely can progress to a larger canvas. Well executed and well managed technical collaborations progress to higher levels sequentially and also in parallel. Let us look at what kind of journey is possible. You can start with the technical collaboration which is fundamental, basic and helpful.

Supply of technology in return for knowhow fee and royalty then you can have technology and supply analysis. Broader supply of technology and sourcing of components, which I discussed as the Ashok Leyland Hino case just now. Then you can have financial collaborations, financial participation in equity or debt to forge some level of long-term relationship.

Even create a joint venture, because the capabilities exist in both the partners therefore, there would be participation from both the parties. And finally, when the venture particularly the joint venture performs very well there could be an opportunity for merger and acquisition as well. The larger party may acquire the smaller party and there could also be an effective merger of near equal partners.

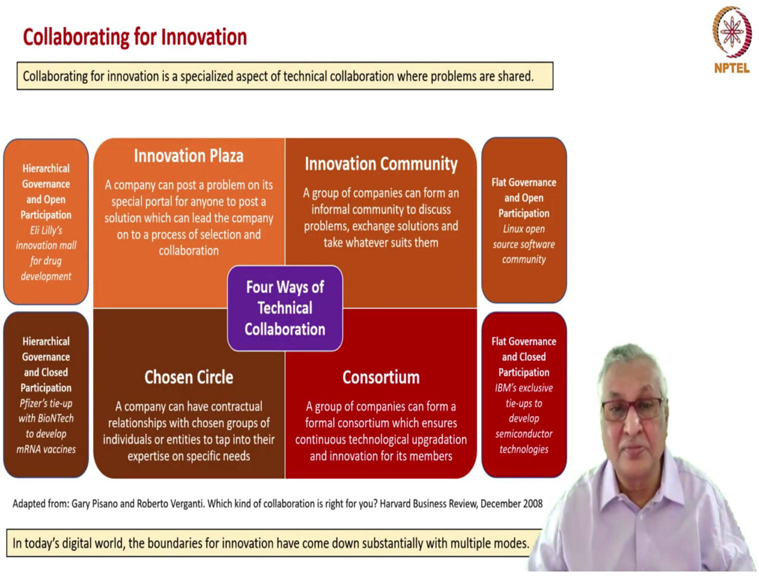
In the 1950s when the era of technical collaboration started it used to be a long cry or a far cry for Indian companies to get into the subsequent stages, because at that point of time India was seen as a recipient of technology and was seen as somebody who needed guidance coaching and control as well as frequent monitoring in respect of indigenization as well as production of quality products and components.

This no longer is this seen today. Therefore, there is significant scope to straightaway going to technology and supply alliances. There is also a much shorter frame of time to progress from technical collaborations to the joint venture stage.

In a matter of speaking technical collaborations technology and supply alliances and financial collaborations are becoming a cluster and the movement between one type of collaboration and the other type of collaboration is become easier and it is always one type and one model of collaboration that will help each company get the best out of the collaboration.

What works very well for let us say Toyota and Kirloskar may not work very well for Eicher and Volvo. The considerations are different and the levels of ownership could be different. All of these things influence how technical collaborations progress. In such progression partners realized the strengths of both the parties and they could become even one entity in the long term as I said.

(Refer Slide Time: 38:09)



There could also be a collaboration for innovation. It is always not necessary that we do a collaboration based on hard products or hard services. Collaborating for innovation is a very specialized aspect of technical collaboration where the problems are shared between 2 entities. There are four ways of technical collaboration which I have given here.

One is innovation plaza. In this system the company can post a problem on its special portal that has been created by the firm for anyone to post a solution which can lead the company on to a process of selection and collaboration between the solution provider and the company. And this is a hierarchical governance and open participation system. Eli Lillys innovation mall for drug development is a classic example of innovation plaza.

There could be another methodology which is innovation community methodology. A group of companies can form an informal community to discuss problems, exchange solutions and take whatever suits them. Even in the semiconductor space today companies may decide that let us form a collaborative arrangement to develop chips which are more suitable for Indian products. That could be an innovation community.

Regardless of what each company is doing individually in terms of technical and financial collaboration with foreign partners in the respective businesses they can still have this innovation community operating. This is a flat governance and open participation system. The most classic example of this is the Linux Open Software Community.

Linux Open-Source System was developed because of the innovation community that has become operating. There are also several other innovation communities of a lower scale that operate all the time. You want to develop a software code for strong requirements.

You could have a community which is working on that. For example, the tax system of a particular country changes suddenly. Then innovators of digitization of the tax system could collaborate to make that possible for companies to seamlessly transit. Then there could be a chosen circle methodology.

A company can have contractual relationships with chosen groups of individuals or entities to tap into their expertise on specific needs. Again, it is a hierarchical governance system, but it is a closed participation system. As compared to Eli Lillys innovation mall, this is a closed participation system.

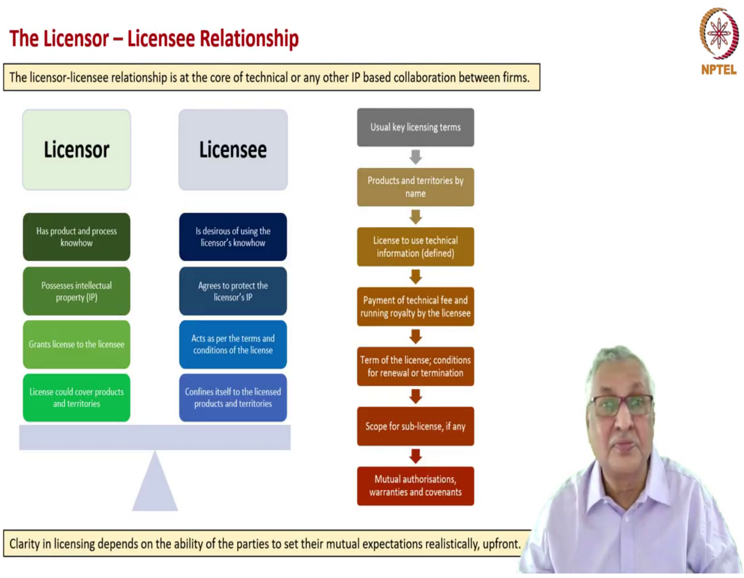
Pfizer had a tie up with BioNTech to develop mRNA weight vaccines. Pfizer has dipped into the innovation capability of BioNTech even much earlier to the need for COVID vaccines and that has helped BioNTech provide the innovation at the right time in the right manner, but it has a closed arrangement. Then we have consortium.

A group of companies can form a formal consortium which ensures continuous technological upgradation and innovation for its members. Again, this is a flat governance and closed participation system, which is different from the flat governance and open participation system that innovation community represents. IBM's exclusive tie ups to develop semiconductor technologies.

IBM says that my goal is to develop newer semiconductor technologies, but I also recognize that this is very much proprietary to my business. So, I will have closed ended or closed collaborative arrangements. In today's digital world, the boundaries for innovation are getting extended.

At the same time, the differences between what is won by whom are also getting shortened. So, there are multiple modes that are available for collaboration on the platform of innovation across companies between companies and individuals and across individuals who are in the intellectual property space.

(Refer Slide Time: 42:10)



We cannot complete any discussion on collaboration without understanding the licensor and licensee relationship. The licensor licensee relationship is at the core of technical or any other IP based collaboration between firms. Then we say IP that is Intercultural Property, it not it need not be confined only to technology.

Even your creative way of doing a business, your ability to assemble different sets of data and get into a newer kind of business model or a newer kind of algorithm could be your proprietary knowledge. Suppose, you have got oil coming into several ports, but you have oil refineries in different parts of the country which crude should go where. That is the proprietary algorithm which the company can develop and you can license that algorithm to needed companies.

Therefore, the licensor licensee relationship is a broad description of the provider of technology or any other proprietary platform and license is one who receives it and implements it, uses it and makes a payment for that. So, who is a licensor? Licensor is one who has product and process know-how. That licensor has intellectual property short form IP.

The licensor grants license to the licensee. Without a license, nobody can use a technology in today's modern world and the licensee has to be very specific. It could cover products; it could cover territories and it could cover both of these in different combinations. Whereas, the licensee is one who is desirous of using the licenses know-how. The licensee agrees to protect the licenses IP. He keeps the IP interest only for the defined use acts as per the terms and conditions of the license and confines itself to the licensed products and territories.

Because of this import of licensing and the licensor licensee relationship, these are always governed by strong agreements, robust agreements. Usual key licensing terms or products and territories by name, license to use technical information which is very well defined which also means the information that will be supplied will also be very well defined.

Payment of technical fee and running loyalty by the licensee; technical fee could be in installments; the royalty could be back-ended or front-ended or fluctuating. All these possibilities do exist. Term of the license that is for how many years the license will be there, will it be from the date of signing or from the date of introduction of the product based on indigenization in a particular country.

Conditions for renewal, conditions for termination. Usually, people would like to renew their technical collaboration agreements if things are going well and that could be automatic unless otherwise written in writing against automatic renewal or they may even require approval in writing by both the parties before it gets extended automatically.

Termination can be for cost and termination also can be for without cost situation. Again, people may like to have sub licensing that is demand for the market or the demand from the market is so, huge that it may not be possible for one licensee to handle all the market requirements.

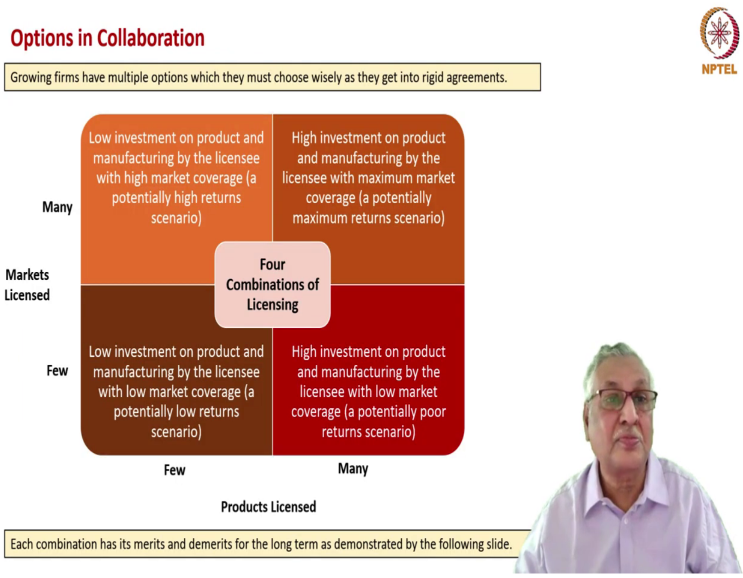
So, the licensor and licensee may agree that the licensee is free to supply sends it to some other companies to be a to meet the demand even if you have somebody else supplying a particular component to you as a licensee, even that could constitute a sub license. Then there would be lots of mutual authorizations, warranties and covenants that govern the licensor licensee relationship through the contractual process.

Clarity in licensing depends on the ability of the parties to set their mutual expectations realistically upfront. Many a times, license in agreements are so vast in terms of the expectations of one-party vis-a-vis the other party and therefore, they flounder in actual implementation. There are again subtle differences between licensing arrangements made out of Western countries versus the oriental countries more particularly in Japan and Korea.

Western countries would like to have everything fully specified and no change thereafter and any change would entail a modification with the terms of the agreement. Japanese would like to operate more on a heart and gut basis. There will be broad specification that is described.

But once the relationship gets implemented, the Japanese go that extra mile to provide additional information and even sponsor business by their technical experts and also receive business by the Indian people. So, that the technology is effectively implemented in the company. So, there are also nativity related differences between various countries in terms of licensing and licensee relationships.

(Refer Slide Time: 47:29)



As I said, there are many operations that are different and therefore, you also must have different options for collaboration. There are 4 combinations of licensing that are possible based on two dimensions. You have basically a product market dimension even for licensee.

Typically, products are licensed and typically they are intended for certain markets. So, you have products that are licensed as the x-axis and markets that are licensed as the y-axis. The products could be few or many. Similarly, the markets could be few or many.

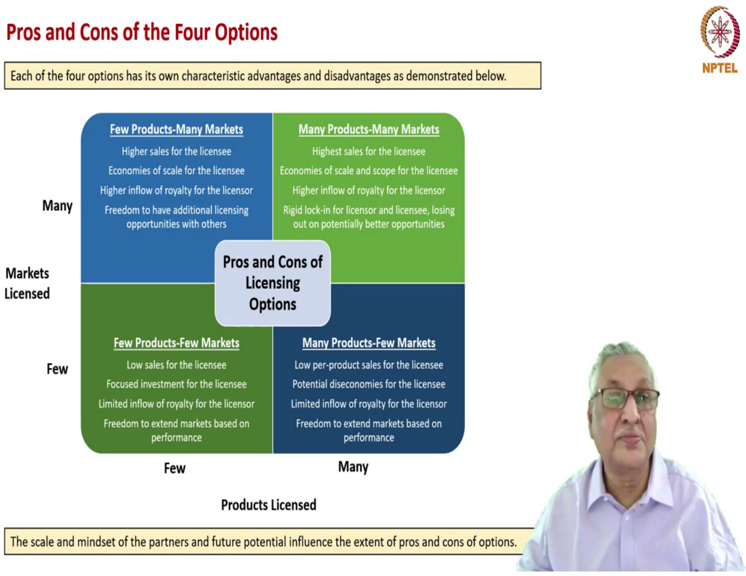
So, if you have few products that are part of the licensing arrangement with only a few markets getting covered, there would be some advantage, low investment on product and manufacturing by the licensee. But the disadvantage is that there would be low market coverage and this leads to a potentially low returns scenario.

Let us say you have many products that are licensed, but markets that are allowed are few in which case there would be high investment on product and manufacturing by the licensee with very low market coverage. This also leads to a potentially poor return scenario the returns. In fact, could be worse than what happens with the few markets and few product situation, because the investment sucks in more capital therefore, return on investment will be lower.

There could be a situation where products licensed are few, but the markets that are licensed are many. This has the advantage of low investment on product and manufacturing by the licensee with high market coverage that is you are spreading your risk on the number of markets and this is a potentially high return scenario. Which any licensee would like to have. That is, you would like to license two, three products, but be able to sell in 100 countries if it is possible.

Then there could be a scenario where the products licensed are many and the markets licensed are also many. This will again require high investment on product and manufacturing by the licensee, but the advantage here is that there would be maximum market coverage. It is a potentially maximum returns scenario. It is also a scenario which has got additional facets that are working on this scenario. Each combination has its merits and demerits for the long term as demonstrated by the following slide.

(Refer Slide Time: 49:50)



The pros and cons of the 4 options in terms of the characteristic advantages and disadvantages are as below. Let us say you look at the few product, few markets situation. There will be low sales for the licensee, but focused investment for the licensee. Ideal for scaling up. It would have limited inflow of royalty for the licensor, but freedom to extend markets based on performance.

If you are looking at an exploratory agenda with an intent to access technology and test out markets, this is the best methodology to start with. And typically, many companies have started within this quadrant and have moved on to other quadrants. Some of course, had to move out of the quadrants as well. Then we have many products few market situation.

The advantage for the licensee is that it entails low per product sales for the licensee potential diseconomies of scale for the licensee. Limited inflow of royalty for the licensor and freedom to expand markets based on performance exists here as well. So, having many products does not make sense for a licensee if the markets that are allowed are not many.

So, many products few markets is not a great way to start a particular licensor licensee relationship. Let us have few products and many markets situation for concentration. The advantage of this higher sales for the licensee, economies of scale for the licensee, because only few products are involved and huge market capacity is now available.

Higher inflow of royalty for the licensor and freedom to have additional licensing opportunities with others so, this is something which you can really look at in a positive framework. The advantage of the many products, many markets combination is that it provides the highest gross sales for the licensee, provides economies of scale and scope for the licensee, provides higher inflow of royalty for the licensor, but the disadvantage is that it entails a rigid lock in for the licensor and licensee. Losing out on potentially better opportunities.

Particularly in times when the technology is rapidly changing, you can see the issue. The licensor licensee agreement let us say is for 10 years and you have rigidly locked yourself in with the agreement, but the technology changes every 3 years and the licensor would have the ability to move on to another licensing arrangement and the licensing may not have the ability to move out of the arrangement and do something similar.

Again therefore, the way a licensing arrangement is structured becomes very important and that structuring must be done in such a way that mistrust is not seen on the part of the other party, but at the same time reasonable flexibility is built in. So, that nobody is short change in this licensor licensee relationship. So, this scale and mindset of the partners and future potential influence the extent of pros and cons of options.

So, it is an analytical exercise. It is a conceptual exercise when you decide to go into a particular type of business development platform, but once you get into a platform, it is a strong analytical exercise to get into the right kind of relationship between the 2 partners contributing to the collaboration. With this we come to the end of this lecture. I hope you enjoyed this lecture on collaborations as they constitute the fundamental bedrock of technological development and business development for companies.