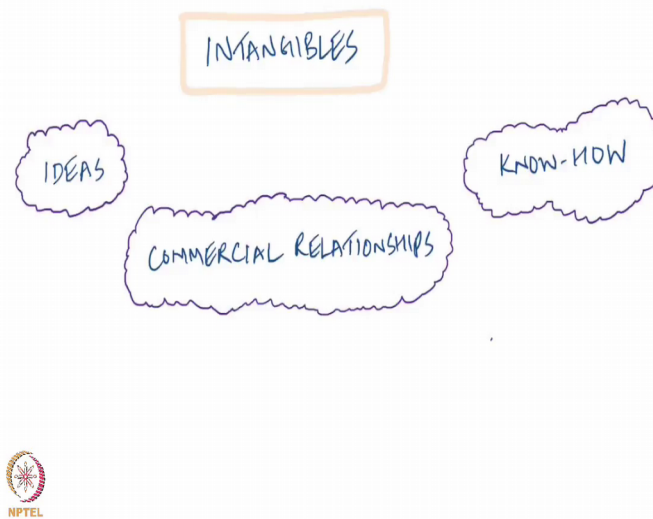


**Intellectual Property**  
**Prof. Feroz Ali**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Madras**

**Lecture - 15**  
**The Traits of Intangibility**

Intangibility has certain traits. To understand an intangible asset we need to look at the traits of intangibility. What makes an asset an intangible asset? Economists have given certain traits, but when we come to the legal aspects of it, these traits will be important for us to understand, so that we can give the character of intangibility to intellectual property assets, because intellectual property assets are the products that can be covered by an intellectual property, right exit with these traits.

(Refer Slide Time: 00:50)



Intangibles: when we talk about intangibles, we are talking about ideas, commercial relationships and know-how ideas can be protected. The expression of ideas can be protected by the copyright regime know-how, when it is translated onto a product which involves a technology that can be protected by patents. Commercial relationships are largely protected by the law with regard to confidential information or what we also call trade secrets. That is largely the contractual regime. You can have a contract with a person with to whom you are disclosing relationships. Commercial relationships are

commercially sensitive, information and bind that person through a non-disclosure agreement in such a way that a trade secret is protected.

(Refer Slide Time: 01:39)

## FOUR TRAITS OF INTANGIBILITY

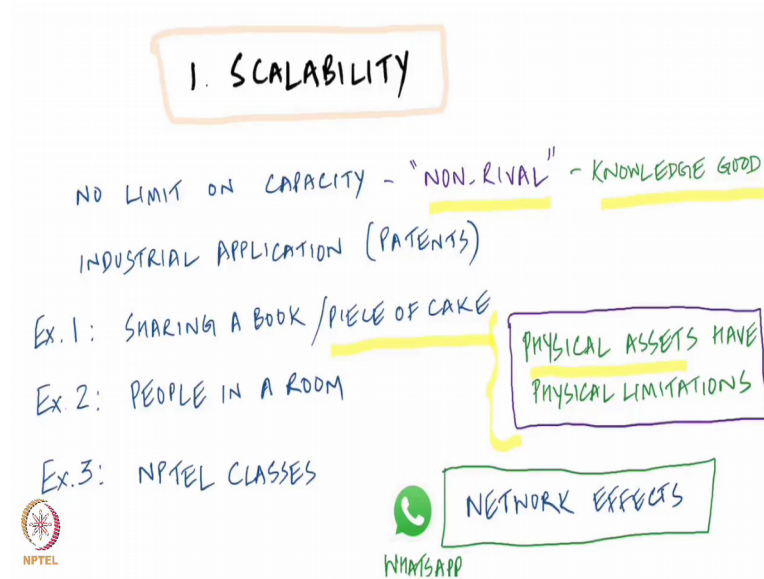
1. SCALABILITY
2. SUNKENNESS
3. SPILLOVERS
4. SYNERGIES



Now, let us look at the 4 traits of intangibility. The first trait as economists tells us is scalability. The intangible asset is scalable. The 2nd, trait is sunkness. The intangible asset is created by cause that is sunk in the sense that you will be hard to recover those costs. The 3rd, trait is spillover: spillover in the sense that when an intangible asset is created apart from the person who created the asset, others get benefit too. And 4th, trait of intangibility is that it can cause synergies having one intangible asset and another asset together can cause synergy which would normally not be the case if the assets are used separately.

Now, let us look at these 4 traits in detail. Though this is an account by economists, we will find that this holds good. This analysis of the 4 traits of intangibility holds good for illegal analysis as well.

(Refer Slide Time: 02:47)



So, first we look at the scalability aspect. We say something is scalable when there is no limit on the capacity to make those things. For instance, intangible assets have a trait of mass duplication. You can make multiple copies of an intangible asset. For instance, if it is a book, the intangible asset being the creative work of the author; then that book you can make multiple copies of it without there being any decrease in the output of the book itself. In the sense that any person who get reached the book, gets an understanding of the book, the ideas covered in the book without diminishing the asset.

Now, economists call this as non-rival goods or earlier it also used to be called as knowledge goods. Now, knowledge goods and non-rival goods tell us that there are certain goods that are non-rival in nature especially for this is true for intangible goods. Rival goods are goods which can be used by only one person or a group of people. When a group of people, consumer group, it is simply not made available for others. For instance, a piece of can be shared by a finite number of people.

There are limitations to what you can do with a piece of a cake. A book on the other hand can also be read by only one, by one person, but the idea that conveyed in the book if the book is relayed say on YouTube. Assume that the book is shown the pages are flipped on the YouTube. Every person who can have access to YouTube can read the book as the book is being flipped and get the complete understanding of the book, as a person would get while reading the hard copy of the book.

So, when the book, when a video is made out of the book in the sense that the reading of the book, a book is held in front of a camera and it is short and it is relayed to 100s and 1000s of people. Every person who reads the book gets the same enjoyment or benefit out of the book, out of the idea that is communicated in the book as it would be in the case of a person who physically reads one copy of the book. Now, this talks about the scalability. Intangible assets can be scaled to any number. Now, if you regard Microsoft's software windows as an intangible asset, then you can see that any number of copies of a windows program can be made without affecting the enjoyment of others.

So, this tells us that there are certain goods that are non-rival. In nature, rival goods are goods only few or finite number of people can consume. Non-rival or non-rival less goods are goods without physical limitations. There is no limit to the number of people who can consume that book. So, sharing a book and we are talking about not physically sharing even the physical sharing if you look at a book, if assume that a group of students sit next to each other and share and read from a common book.

Now, all the students who look into the book and read from the book can actually derive the enjoyment from the book as it would be the case. If they read the book separately and this enjoyment each one of them gets does not affect the enjoyment of the other. In the sense that they get a complete understanding of the concepts mentioned in the book without affecting the enjoyment or the benefit that others get while reading the book, whereas in the cake example you simply cannot enjoy a cake without affecting others who are sharing that with you.

Now, this example can be magnified or we can take this example to a different level, when we compare the number of people whom we can accommodate in a room. Now, normally in a classroom you could have a teacher and a few students depending on the size of the classroom. Now, if you want to increase the number of people in that room, what you could do is, you could remove all the furniture's and then, you could put people there. Then, though it may look crowded, you can have say host a tea party or a lunch and you can have more people standing there and utilizing the room.

Now, if you want to use the room or rent the room for purposes of accommodating people, then you can put some beds and bunker beds if necessary. And you can slightly increase the number of people who can actually use the room for say as an

accommodation. Now, you can extend this idea, but at the end there will be a limit to the number of people who can actually enjoy the room. So, that is a rival good. A room which has constraints of space and which has physical limitations like a physical asset, a room has certain limitations as to how many people can actually use it. So, if you stuff the room with more people, then it can actually handle. Then, there could be some consequences which will go beyond what a person can handle. So, a room is a typical example of a rival product.

Now, let us look at a room in the online space. For instance, a chat room: a room which people can use for chatting, there is absolutely no limitation as to how many people can chat in a chat room. Absolutely no limitation, because what we have done here is that in a chat room, because it is created by an intangible asset software. And because it exists in the internet or somewhere in the cloud, you can ensure that the number of people who are in the room can be boundless, it can be limitless. So, physical assets have limitations, whereas there cannot be any limitation on intellectual assets.

So, another example that we can understand are NPTEL classes themselves much different from a normal class. In NPTEL class, we would allow any number of students who have access to the internet and to YouTube to have access to these classes. So, what in effect happens in NPTEL class is that the intangible nature of the delivery which is by using software, the voice and the video of a professor who has recorded the lecture is now delivered to limitless number of people. There is absolutely no limit to the number of people who can enjoy or who can use NPTEL class.

So, this talks about the scalability aspect of intangible assets. Intangible assets by definition are scalable. For instance, somebody writes a book and the book can be protected by copyright. Now, the number of copies you can make of the book is infinite, especially if you convert the book into some kind of an e-form and say an e-format or an e-copy or a kindle copy of a book. So, there is absolutely no limit to how you can scale an intangible effect asset.

Now, intangible effect the scalability is also affected by what we call the networks effect. The networks effect is simply that if more people have telephone connections, the network effect makes it easy to scale up and it brings more benefit to people. Now, we

see that in WhatsApp the more people who have WhatsApp, the more it becomes easier to communicate with those people. So, scalability is enhanced by the networks effect.

(Refer Slide Time: 11:13)


**2. SUNKENNESS**

COST OF CREATION OF THE FIRST COPY - IRRECOVERABLE COST

- MICROSOFT WINDOWS/VISTA - LAND, BUILDING, FACTORY
- GILEAD'S SOVALDI - \$11 BILLION

R+D  
TEAMS  
TOOLS

HARD TO RECOVER



**Kingfisher Air Pledges Brand, Furniture for \$1.2 Billion Loans**

*Fly the good times*

NPTEL

Now, 2 Sunkness; sunkness refers to the cost of creation that went into the creation of the intangible asset what we call the investment that went into creation of the intangible asset.

Now, sunkness is there almost in every asset; both intangible that is physical as well as intangible assets, but the probability or the possibility of recovering the cost is much difficult when it comes to an intangible asset. Now, this is also referred to as the cost of creating the first copy. For instance, Microsoft windows would have expended enormous amount of resources in coming up with the first copy of windows or few years back, we had something called the Vista.

Now, vista is now a discontinued product. What happens to the cost that has gone into the creation of vista? Vista being an intangible asset, now the cost that went into creating the software is simply cannot be recovered now. So, in that sense it is much harder to recover the cost that goes into intangible asset than it is in the case of a tangible asset. For instance, land, building and factory which belong to a company can at any time be sold if the business does not move forward, whereas intangible assets like lists of customers. For instance or operation procedures in a showroom, there is a company which runs a showroom and they have an operation procedure which only suits that

showroom. So, if they had spent enormous amount of time in creating that intangible effect, thus the manual of operations, it will be very hard for them to use that manual in another surrounding or in another situation.

Now, again the sunkness cost can be understood in what we saw in Gilead Sovaldi. Sovaldi as we saw was a drug which Gilead acquired when it took over the company Kite Pharma and Kite Pharma that was valued at 11 billion dollars at the time of its purchase, but we know that Kite Pharma was absorbed into Gilead's company and the drug later on became a blockbuster drug getting revenues in excess of 20 million in the year 2017. Now, all the money that went into creating Kite Pharma and the drug, the potential drug which was later on acquired by Gilead and which later on got approved as Sovaldi, it will not be possible to recover those costs, the R and D teams and all the equipments that went into creation of the drug. The creation of the drug may get monetized when the drug becomes a best seller.

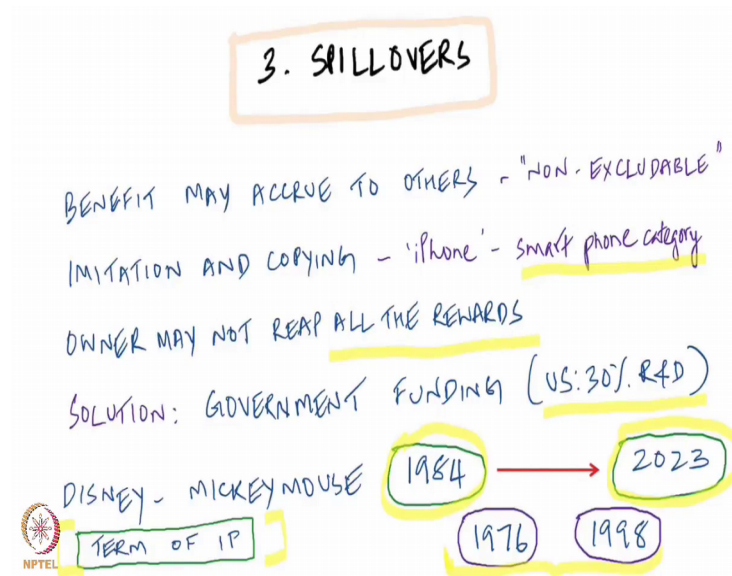
For instance, let us look at another drug which say- hypothetically developed by the same company for which there was no recovery of cost, a drug that eventually led to a failure for probably the drug did not reach the market. Now, this tells us that when we are dealing with intangibles, intangible assets have a cost that is sunk into it which may be harder to recover than in the case of a physical asset. Physical asset as we all know like land, building, and factory. Even if there is no need to continue with the particular business, you should be able to sell the land, building and equipment in a factory and get some cost recovered by say lump sum sale or a piecemeal sale. So, unlike a physical asset, intellectual property assets or intangible assets become hard for people to recover the cost that has gone into it.

Now, a good example is Kingfisher Airlines. Kingfisher Airlines we know that had pledged its brand furniture and various other things for 1.2 billion dollars for the loans that the company had taken. Now, a substantial part of this pledge relied on the brand of Kingfisher and brand as we know is an intangible asset and we know what happened later on. Kingfisher was not able to pay the debts and it led to the closure of the company and also due to weight and it also led to other complications for the promoter.

Now, here is a case where the sunken cost into building, the brand whatever Kingfisher did to build the brand is something which cannot be recovered which the banks realized

when they pledged a loan predominantly based on the brand. When loans are given based on a brand which is an intangible asset, then it could lead to a situation like what we saw in the case of Kingfisher Airlines. This largely is due to the fact that the cost that goes into an intangible asset into the creation of an intangible; asset is a sunk cost and it becomes hard to recover that cost.

(Refer Slide Time: 16:59)



3 is Spill overs: now, spillover refers to the fact that the benefit of an intangible asset may accrue on others. The economists also called this as non-excludable nature of an intangible asset. An asset of intangible nature when it is released or when it is used, it could lead to others getting benefited by it.

For instance, when iPhone released the first phone in 2007, it created the Smartphone category. The Smartphone category was created by iPhone. Now, when apple created this category, they were the market leaders. They were the ones who brought out a phone with a full touch screen without any dial pad. Iphone thought was the pioneer in this field had to live with the fact that others would be creating Smartphones as well.

So, though iPhone created the category, Samsung, LG, Motorola and others got the benefit of the spillover. So, in creating an intangible asset, there is a spill over which you may not be able to stop others from enjoying it. So, the owner in effect may not reap all the rewards of the product. So, one of the solutions that have been suggested to get over the problem of spill overs is to have government funding. So, all the basic work or

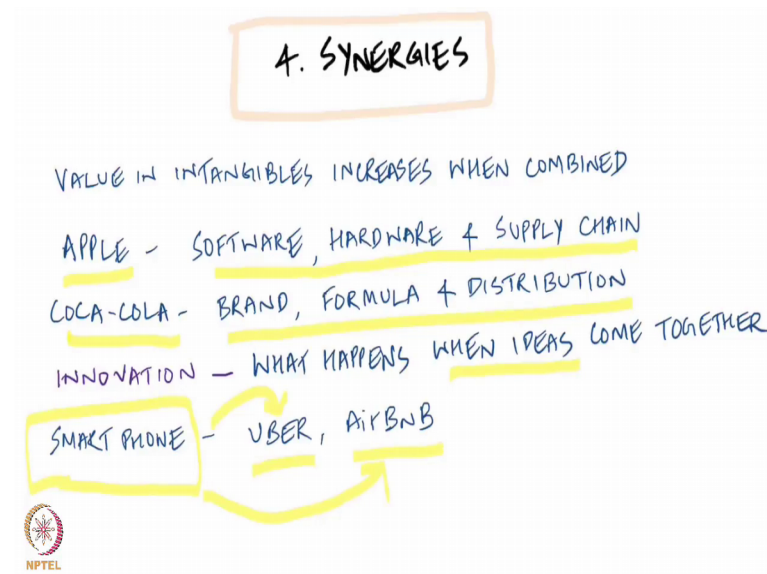


research that is being done, if it is funded, but by the government; the follow on work alone needs to be done by the market and that would lead to a situation where the market develops something which has already been funded by the government. Now, for instance the United States government funds 30 percent of R and D that happens in that country.

Now, the spillover is also something which could be potentially protected by intellectual property, right. Now, the term of IP refers to the timeline during which IP cannot be used by others. An intellectual property cannot be used by others during the term of IP. For instance, if there is a trademark protection over a brand, then the brand cannot be used by others. If there is a copyright protection over artistic work, the copyrighted work cannot be used by others. So, we have this instance of how the term of IP can be extended to protect the spillover effect. Disney the creators of Mickey Mouse had a life term for the copyright which would have expired in 1984, but Disney was able to successfully lobby and extend the life till 2023.

Now, this happened by bringing in two amendments to the copyright term which Disney had lobbied for in 1976 and 1998. So, one way to get over the spillover effect is to have strong intellectual property rights and one way to extend the intellectual property life itself is to have a longer term on IP.

(Refer Slide Time: 20:31)



4 is Synergies: the value of intangible increase when they are combined with other intangibles. For instance Apple is a company which has combined software, hardware and a supply chain to come up with elegant and user friendly products which can reach any part of the world with a very short time.

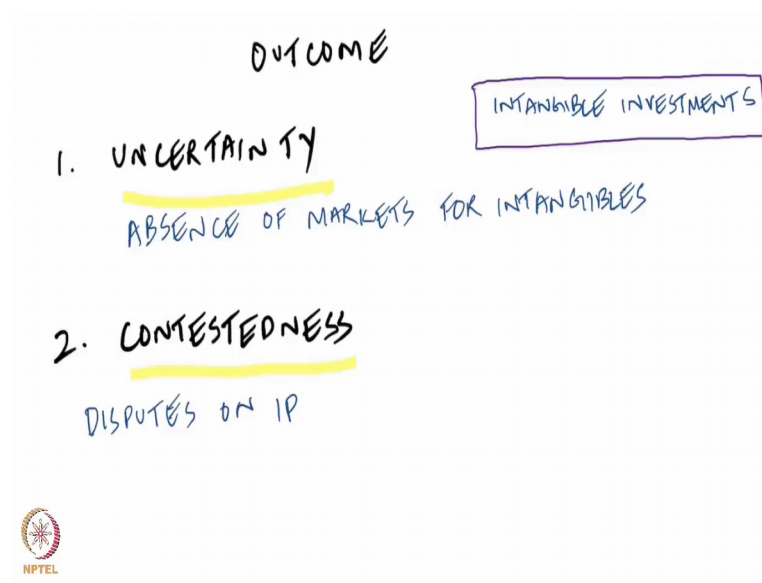
You would know that all the iPhone releases, they were close to global launches and the copies were available or the models were available as soon as they were globally launched to other parts of the world as well. Coca Cola is another company which combines the synergies of a brand which is an intangible formula. There is the secret formula which Coke is supposed to have developed and it protects it and a distribution network. So, these things make a synergy or create a synergy which gives Coca Cola a lead over other competitors.

Now, innovation itself has been defined as something that happens when ideas come together. So, you know synergy is something which promotes the creation of an intangible asset and many a times the synergy itself gives an advantage to the producer. The producer because of the synergy, he has in the company or in the enterprise that is run by the producer because the producer has certain synergies. It is possible for the producer to come up with new intangible assets by way of combining existing assets.

Now, two of the business models that we know today, Uber and Air B and B are models that existed before hiring a cab was something which people knew and renting out premises say for the use of a paying guest was something which we already knew, but the synergy caused by the availability of Smartphone and the connectivity of Smartphone actually allowed these models to flourish. So, you can see that Uber is a model that could only work if people have Smartphone and Uber developed apps for it Air B and B. Similarly is a model that will only work if people are connected over the internet and they are able to show their property and engage with others who are interested in staying in those properties.

So, synergy is another aspect or another trait of an intellectual. Synergy is another trait of an intangible asset.

(Refer Slide Time: 23:21)



Now, what is the outcome of these 4 things? So, the outcome of these 4 traits of intangibility is that one, it causes uncertainty and two, it causes contestedness uncertainty because there is intangibles by the nature. We saw that because of the sunkness and because of the spillover that intangibles create it is hard to ascertain and derive the value of an intangible.

Now, Coca Cola may be able to value its brand at a very high price. They simply may not be anybody to buy the brand because of its valuation, because of the uncertainty that goes into the valuation of the brand. We saw in the case of Kingfisher Airlines. The brand and some properties were together, the pledge for 1.2 billion you know when it turned out. The banks were not able to recover this value though they had pledged money equivalent based on the brand predominantly.

So, there is uncertainty that comes out of an intangible asset and intangible assets by definition are investments that are of an uncertain nature. So, there is uncertainty and second thing is that we need to understand about these 4 traits contribute to contestedness. There are disputes with regard to intellectual property rights that constantly arise, because the nature of the intellectual property right leads it to be contested, when a patent is granted by the patent office, when the patentee enforces the patent. It allows the patentee to stop others from doing things in that particular area.

And if it is something that ought not to have been granted, a patent to say a technology which was already there or a technology which was obvious to people in that are to come up with or a technology which was in the public domain, but only few people knew about it. For various reasons, an intellectual property right may get contested. So, contestedness is another outcome of intangible assets.