

**Entrepreneurship and IP Strategy**  
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**Lecture 04**  
**Whether entrepreneurship and IP related?**  
**What is the role of IP strategy in entrepreneurship?**

A very warm welcome in the 4th module of week one of the course Entrepreneurship and IP Strategy titled Whether entrepreneurship and IP related? What is the role of IP strategy in entrepreneurship? Earlier we discussed what is entrepreneurship and then we in the next module we have seen what do you understand by IP. After going through the last module title what do you understand by IP? You might have appreciated various types of IP and related acts.

Probably you might have perceived the vast nature of IP field. Now, we will check the relationship between entrepreneurship and IP strategy. Now, in this module that is title; what is entrepreneurship? What that in the earlier module that is, what is entrepreneurship? We have tried to understand that when we have given you the example of the various organizations, we have given you the idea this is the organization and this is the important IP.

Obviously it is very clear that any organization you take all four types of industrial properties that is; patent, trademark, copyright and industrial design are very much important. But still what we have given you the idea that this is the organization and this type of IP is like a very prominent here. So, you can relate the IP very easily with a that particular organization. So you can get the idea this is entrepreneurial activity and this is the IP involved here in this entrepreneurial activity.

So, that we have done in the earlier module that is what is entrepreneurship? Now, in this module we will go in little detail about this what is entrepreneurship and how exactly IP is related with entrepreneurship. So, let us begin here. Now, the question probably in your mind is, really this both areas are related? Because in your engineering or science curriculum whatever you have gone through maybe you have got little exposure about IP.

I am assuming that and probably you may not be aware that IP is a such a vast area. And probably you may not able to relate that your understanding about that your core subject and the this IP area. So, what probably you may have never thought that this IP is so related with my core area like science or engineering. So, we will try to understand that and I will give you that one example here so that you can easily relate that; yes, really IP and entrepreneurship is related.

Now, here the example which I can give you is related to upcoming technologies like artificial intelligence or blockchain. Now here what the thing happen that when you are that technology is

developing what the thing is happening that IP laws are like becoming very challenging because what the thing is happening that whatever the the guidelines are given for any invention to be considered for IP protection that certain guidelines are there.

Sometimes what happen that particular guidelines may not match with that particular technology which is upcoming, for example, artificial intelligence is little bit is challenging one. Now, suppose you are working in that area so we can just see that one simple example that you are using your artificial intelligence related domain knowledge and you are creating something which is very what you can say , innovative.

And the question is who is a owner for that creativity? Because when we talk about IP we try to understand who is an owner and who will have that legal rights. Right? Because the thing is that already we have said that we are in technology, technology is moving fast and we are in a knowledge economy where that particular knowledge is creating asset. And if it is an asset who will own that asset that is very important.

Now, think that a machine that you have created whether that machine will own because that machine is doing or robot is doing that particular activity. So, the question is the person who has created that particular robot or that particular machine whatever it may be. Or that particular machine who will own that particular IP right? Now, simple example I can one more elaborative example that you can appreciate it easily.

That if suppose this incident happen that car accident by a driverless car. Now, if this kind of scenario happen this is your artificial intelligence and you are using that algorithm and by using that particular thing that car is going on the road. And it suppose that driverless car there is a accident, there is no driver otherwise generally what the thing will happen either owner of that car or the driver they will be liable for that particular thing. That is general thing understanding.

Now, here the question is to whom you will consider responsible for that particular thing? Whether that car maker or the machine that is in the car which is doing that particular activity or that automation or group of people who are involved in that technology development. Who will be responsible for that particular thing? Just think over it that to whom you will in this case who will be the responsible?

And, therefore what you can say that in the fast pace technology as it is a very competitive advantage is there because of that fast moving technology, complexity of law is also increasing. And we have to understand that this is a technology and yes who is owning that particular the output of that technology, and who will get that rights that is very important. And we have to

appreciate that this intellectual property is giving you that particular right.

So, I guess this is good enough to understand that yes, IP that is a which is creation of what you can say it is an invention, innovation, that creativity is there and that creativity is like a protected by IP that is the instrument and that particular protection gives you the ownership whosoever is applying that IP that will get the ownership. So, I guess this is good enough for you to give the background about that particular. Ok.. entrepreneurship and IP are definitely related.

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And we will see a few more details about that. Now, unlike tangible assets to your business such as physical infrastructure, building or that is a physical asset, right? These intellectual assets are also very important. And we can say that in current scenario 80 percent or more are intellectual assets. And generally this physical infrastructure is 20 percent only. So completely what you can say you can understand that that much importance is given or that much importance is gained by that intellectual asset.

So, there are four ways by which you can what you can say protect your technology and these four ways in India are like patents, trademarks, industrial design and copyright. So, we have dedicated modules for each of this type of IP because these are coming under an industrial properties. So, that that time you can go in little bit more details about this particular intellectual property types.

Now, this can be valuable to entrepreneur in a variety of ways such as it will help in development and refinement of the product or providing protection, developing branding and marketing material and maybe sometimes like a surveying competitors activities. Because now, probably you may not able to relate, for example, branding marketing, trademark will come into picture. Surveying of

competitors activities, patents is a very good what you can say by which you can keep watch on your competitors.

Then, other example is like a refinement of a product. Obviously if you do the patent search and analysis definitely that will help you to refine your product. So, that way these four types of IP's will definitely help you what you can say in development of your entrepreneurial activity and obviously they are giving you a competitive advantage. So, people you say that there are ideas and that ideas come from existing that businesses through research and development.

That particular idea, idea selection is there, and then Rand D goes and that particular service or product is developed. Now, if you take an example of Apple, they are established technology company. Now, they have developed iPod. Now they have realized the necessity of iPad, iPod by understanding the scenario in the market and what you can say they have developed that particular iPod.

Now, this ideas that are generating the value to the economy by encouraging people to buy and invest these new developments. That is new developments in the technology, there is a market push and market pull kind of, what you can say these two concepts are always there. And here what the thing happen that entrepreneur is pushing his invention into the market and maybe if they are very good, customers are going to buy that particular thing.

And how this technology is moving and it is getting market share? So, here whenever you are moving into technology if you are protecting it with the IP, probably that will give you competitive advantage and it will be very easy for you that monopoly which you have received due to the protection that will probably keep your competitors away from your what you can say competition and you can be a leader in that particular technology.

Now, here this what you can say this intellectual property is giving a sole ownership and these owners can control the use of intellectual properties to create a wealth. And that ownership is for a some limited period of time. We will see that what is the time period for that every IP because it is different. For example, patent it is a 20 years. So, for that 20 years that sole ownership if it is there you can probably explore that particular technology and you can get the advantage in the market.



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Now we have seen what is entrepreneurship is? But when we are talking about entrepreneur he is like a person who is developing that entrepreneurship. And he can he is investing it is a high risk right? And that large funds are invested there. If that investment is there it is expected for example, I give you a simple example. If a Pharma company is there to get a single molecule which is very positive, which is giving a positive result probably they spend 10 years or 20 years or more than that and huge amount of investment is there.

Now, you just imagine if I am giving you one example of a Pharma company. That huge, that years together, decades together they are investing and if they will not get return of that obviously that is not giving encouragement or motivation for that, what you can say new developments in the society. And in that way intellectual property is giving the protection and the monopoly to that inventor and that organization who is investing the time, energy, money for that particular activity continuously for years together till that final result comes.

Or sometimes any researcher if you see that they are investing their life in that particular technology. So, obviously what you can say the philosophy is that inventor should get benefit and at the same time society should also get benefit. And if you see the IP laws scheme this philosophy is completely balanced that yes inventor also will be benefitted and society also will be benefitted. And the balanced, the rational is kept when the IP laws are drafted.

So, here that this IP law, as an entrepreneur when you are doing that entrepreneurial activity yes you are investing your maybe 10 years, maybe 5 years, your learning is completely you are investing that particular learning into development of that particular activity. Again you are trying to generate funds to do that particular activity. So, here both time, energy, money everything is invested.

You are taking high risk and you are trying to develop that particular entrepreneurial what you can say venture, your venture you are trying to build. Obviously we will expect there should be some there should be some protection for my idea which is now conceptualized and which is now in the form of prototype and I am creating product or process or service whatever it may be. I should get some protection so that I can be a leader in the market and that way IP is playing the important role.

That it is giving you that protection and by that protection now you are able to build your venture. So, that is what is the importance of IP. And therefore, trademark is building your brand. When we say brand management you have a provision in IP that ok you register your trademark and trademark is giving you protection. Or you develop that technology protect it by patent and get that monopoly for 20 years or if you are in publishing or film industry you are creating nice that tune is there or musical notes are there and that particular thing you have created. Right? Or some lyric you have written or some song you have written, so you need that protection and copyright is giving that particular protection. Or suppose you are in the design industry, so automobile industry you are or maybe you are in a product industry whatever that packaging bottles are there or when you talk about automobile, that car design is there obviously people are investing time and energy to create that car design.

Or if you are in a say electrical engineering domain is there you see different varieties of fans, or different varieties of bulbs and all that kind of what you can say units are there. So, all these are protected by industrial design. So, you can just relate that. Ok..These are the type of IP and these are like a creativity or and that particular you can protect by IP as an instrument and you can get advantage of that particular protection for a few years so that you can be a market leader.

As an entrepreneur you may be a sole trader, partner or you may be a company. Any of this category is there, there is a provision in IP law to get protection and you can get protection as company or you can get protection as an individual. There is a separate provision as a startup so that what you can say we can say provisions are available in the law.

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Next is like here as I have already discussed that you are safeguarding your investment by IP which is the legal instrument and you are getting that particular protection. And here I will give you a simple example or little bit history that how exactly how IP came into existence. Now all just one example I can give which is very related to you. That Paris Convention that was adapted in 1883, it applies to industrial property in a widest and including the patent, trademark, industrial design. and we do not have utility models but it is in USA. Then service marks, these are the types of trademarks, geographical indications are there that is a very good dedicated law, very interesting law and it is and it is very useful for an association or a group of people. And then there is also the arrangement for reparation for unfair competition. And Paris convention is taking that particular care about that particular what you can say the activities which are related to this different types of IP's.

Now, how this come into existence is like at that time, 1883, that time entrepreneurs they have created some products or services. And you know that trade fairs are there. Right? In the trade fair what this inventor or creators do they used to exhibit that exhibition they will showcase there over the product or service. And there were chances that yes you showcase that particular thing in the exhibition. Somebody who is visiting that exhibition he can just see that particular product.

And if he is in that particular domain chances are there that he will buy that particular product and you do reverse engineering probably he will do. And he can create that particular what you can say product of his own. So, what will happen? The person who has invested say a huge amount of time, energy, money, in short time by giving a certain money that particular person is buying that he can do that work on that particular product and he can have a product in a little time without much

efforts.

That was the what you can say worry to entrepreneurs and therefore they say that we will not participate in the exhibition. And at that time it was decided that there should be some provision and then the Paris convention come into existence. And yes we are the, India is the signatory of a Paris convention. You can just see how that system, IP system came and yes it is related directly to the entrepreneurs who are creating that particular products or services.

And there is a need of protection of that particular creation. Now, there are certain rules regulations and WIPO that is World Intellectual Property Organization which is a part of UNO. That organization is taking whole care of a IP all over the world. And you can see that this is the only, I can say that this is one of the important, law that is harmonized.

Means IP law is you go USA, you be in India, you may in Europe this law is harmonized so you get a same type of procedure and rules, regulation so that Act is very similar. And we can say that harmonization of IP law is possible because of WIPO that is World Intellectual Property Organization. Therefore, it is very possible that when I protect my patent here in India, yes I am getting a territorial right for 20 years in India.

If I want to do it in USA or in Europe I can do sitting here and yes I am getting again the same rights in USA, and Europe. So that is the importance of that organization and how it is handling IP laws all over the world because they have given certain guidelines and TRIPs guidelines are there. Every country, almost every country in the world are following that particular guidelines. So that is the a advantage of that having all IP laws. If you see in countries these are similar.

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Now, when we are talking about areas which are related to IP areas related to entrepreneur, a few areas are, you can see here that IP audit is there, Patinformatics is there or patent Informatics, or analytics is there. IP Valuation is there then IP and bank loan is there, IP Insurance is there. Technology transfer is there and yes as an entrepreneur you are going to do all these activities.

So, in all way means you are going to do valuation of your IP, you are using patent informatics for your venture and you will require technology transfer and you will require IP Insurance and yes you can get the loan from your IP. So probably you may not be aware about the details of that but you can just, you can get this idea once you go through this course and you can appreciate that how yes IP, I can use this IP for this what you can say different activities.

Now, if I just try to give you few examples in a briefly. IP audit is there when we are talking about IP audit, suppose you are an entrepreneur and now you are doing your entrepreneur activity. You may not be a startup suppose you are already matured entrepreneur. And you will say I am not seeing an IP in my domain. Yes there are chances that without IP also yes that is not necessary that in every business IP will be involved.

But there are chances that if you are a technology related entrepreneur, you are running that particular technology related entrepreneurship 100 percent chances are there that there is a patent. But probably you are not able to identify that particular potential patent and IP audit it is a process, it is a one activity that helps you to identify to mind that potential IP. And yes trademark each and every entrepreneurship generally I will say that it requires trademark.

So, it may not there, may not be entrepreneurial activity without IP. But there are chances trademark you can do later also. It is not necessary that in the first year only you have to do trademark registration you can use it and you can have trademark later also. But chances are there that 99 percent you are having one or the other type of IP and if you protect it definitely you are getting the advantage of that particular IP.

Then if you want to check something about the that Patinformatics if you want to check about Patinformatics that particular thing helps you to keep watch on competition, competitors we do competitive intelligence report to keep watch on our competitors so that we can know where exactly our competitor is going. And big organizations are doing it very diligently so that is competitive intelligence is there. Then Patinformatics I am using for prior art search.

Suppose I want to develop some certain technology I will just do landscape and I will try to understand which are the areas where I can explore and I can develop that technology. That is a one way. Then I can use a patent analytics for a invalidity search. Probably these words are little bit new

to you. But yes, if I want to invalidate patent of anybody else I do invalidity search and I can invalidate patent of my competitors and I can just get a benefit out of that particular thing.

Or if I want to file the patent yes I do search report that is I call it as prior art search or we call it as a novelty search and that novelty search is like a searching relevant patent for which, the domain in which I am working. That novelty search is there and that gives you the idea about whether really my invention is following the criteria of patent that is novelty because that is one of the important criteria for patent.

So that is about the Patinformatics and IP valuation I will suggest you that in “roadmap for patent creation” that is the course you can get the videos about that. In that we have covered in first week these areas in details. So, if you want to go in details of that you can refer that particular session in that course.

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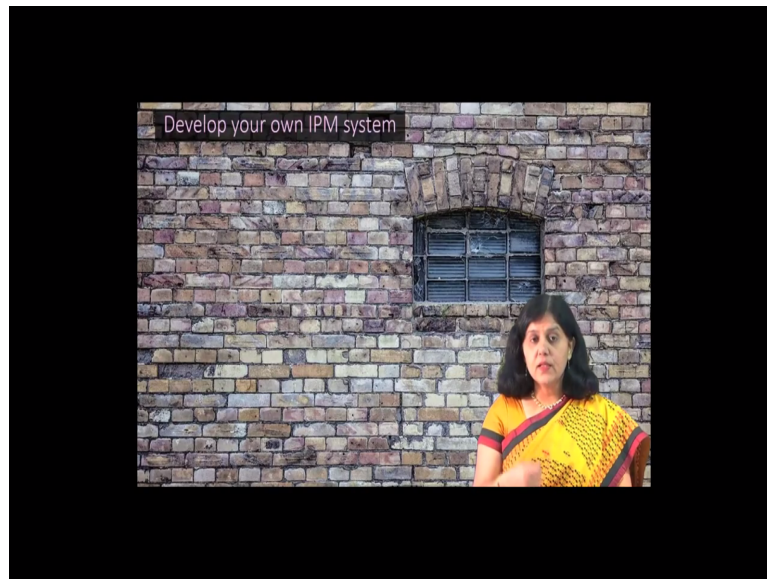
Now, here further if I want to elaborate on IP management system you can develop your own IP management system and you can self-access, self-assess that particular thing and there are total I guess 100 plus or I will say if I want to say very precisely there are almost 166 plus minus few 1 or 2 processes are there related to IP management. And big organizations are following that particular processes. Now what are these processes and how exactly that particular thing works?

If you want to check you can check the video on, this video is there we will just show you little glimpse of that and you can just watch that video and you can get idea these are the areas when I talk about the IP management system these are the 15 major processes and I want to check that in my organization whether I am following that particular processes. That major processes whether I



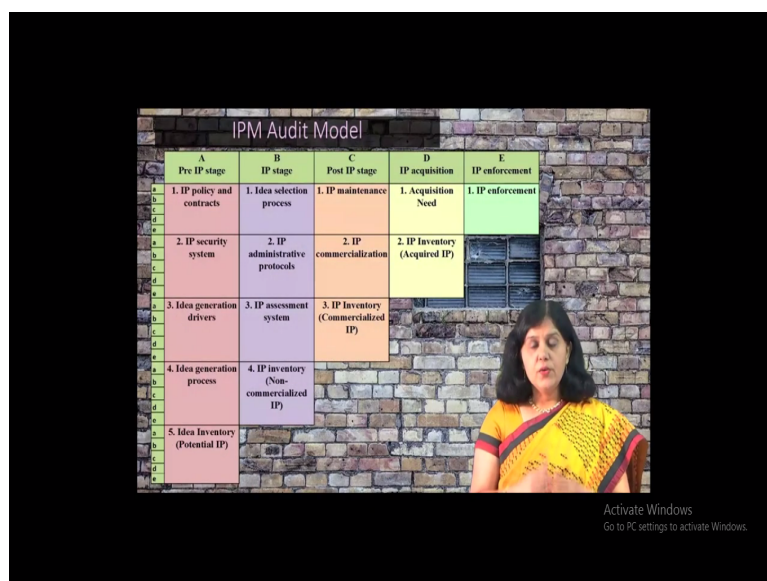
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And the most the advantage, other advantage is that identification of potential IP is a major issue. So, with the help of this model if you follow the processes it will help you to identify the potential IP. Now, the three major things or we can say that three major questions which will be answered by this IPM model are that how can organization develop their own IPM system that is IPMS system. How can organization assess their own IPMS system? And how the organization can manage IPMS efficiently for a wealth creation.

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So, let us see this model which includes 5 stages and 15 major IPM processes. So, here is the

model. If you see this model you can see that there are total 15 major processes and then the at the upper side you can see that the IP stage are mentioned as pre IP stage, IP stage, post IP stage, IP acquisition and IP enforcement as A, B, C, D, and E. And within each the stage that 5 stages are there.

Within each stage you can say that in first stage that pre IP stage you are observing that there are total 5 major processes. In second that is IP stage you are observing 4 stages are there. Now, 4 major processes are there. In the third that is pre IP stage you can observe 3 major processes. Then in the D that is IP acquisition you can observe the 2 major processes. And in the last that is E you are observing 1 process. Now, how this model is developed.

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Now moving further we will see little bit about the IP portfolio. I will just give you the idea so that you can appreciate how entrepreneurship and IP is related. If I give you examples of a Siemens. Now this organization can you imagine how many patents are there with Siemens currently? Can you guess? There are 60000 plus patents Siemens is owning. A organization which is having 3 lakhs plus employees across the world and it I owning 60000 plus patents and you just imagine they are not doing patenting activity like just filed in USA or in India.

That is not the case because their market is all over the world. So they are filing single patent mostly more than 22 to 25 countries that is or more than that. So you can imagine the huge IP portfolio that organizations are building and that they are using. That is the big asset they are owning and they are using it for the competitive advantage. Definitely because they are getting the rights over that particular IP.



If I want to compare Siemens, which is that leading organization in electrical engineering, if I compare it with Indian organization which is leading in electric engineering say Crompton and Greaves is there or Larsen and Tubro is there. This L&T and Crompton and Greaves if you see and if you see the portfolio it is can you imagine how many patents they are owning? Not more than 1000. So, the range is between 1000 to 2000. So you can see the big gap between Indian organization and these international the organization from developing, from developed nations that big gap is there.

So you can just relate that how that what is the gap between IP which is followed in organizations which are from developed countries and the countries which are developing in nature IP that much importance is not given and probably that will hamper the development or development of that organization or they will miss the advantages which are associated with the IP protection. So, I guess that is this example is good enough for you to appreciate importance of IP and entrepreneurship.

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Now, when we talk about that informatics and patent analytics if suppose we want to go in little bit detail I have already given you little bit information about that but the further information you can get about it is who, when, where and how. Now, from that who, where, when and how is like a, as I have already said that who is like a who is that particular competitor is there. Who is doing that particular activity related to that particular technology and who is reading your patent? Competitor is the first who is reading your patent.

Then companies, attorneys are there and judges are there they are using your what we can say if that goes into litigation and all that thing yes judges are reading your patent, attorneys are reading your

patents but the main reader of your patent is a your competitor. So, that who, that, that, that information that is whatever information you are giving in patent will be followed obviously their by the competitor.

And you are also doing that. Suppose you know who is your competitor you can keep watch that already I have told you and you can see how exactly patent portfolio is there and what technology they are concentrating on. Then you can get information about when that, how it is like a information there in the patent document can be used to know that invention trend, then assignment history.

Assignment history in a sense is like that you know it is a property and therefore it is transferred by gifts or maybe rights are transferred and that assignment that from one owner to another owner when that particular thing happen because I can give you the example here. Mergers and acquisitions are occurring in big organizations what we can say or within themselves they are do some activities in collaboration or there are activities like big organization is completely acquiring startups or small organizations.

Whenever that organization is acquiring that particular thing or when they are merging what the thing is happening the assignment means probability is that the ownership is obviously transferred. So when that particular thing happen obviously that will be noted and that chronological development whatever is there of that particular technology you can see by doing the patent analysis. Then where exactly the geographical locations are very important.

If you see any technology that technology clusters are there right. So, for example, if I take a India example, Pune is a good hub of an automobile technology. So automobile related technology the technology cluster is based in Pune. So, similarly in the country that technology clusters are there. So, you can get that information my technology is related to this.

Now where probably I can get vendors or where if I want to develop that particular thing which area geographical location will be the best and where I can get the solution. That information you can get from the patents. And then the next information say how that is which are the different approaches or ways which are used when that particular technology is developed definitely you are getting through the that particular patent.

When you read that patent you will get that particular information. So, obviously along with that this Patinformatics is used in research to avoid duplication of work then obviously for valuation also you can use this patent analytics. If you want to plan your Rand D yes you will require this patent analysis then to manage IP portfolio also you will do patent analytics. And yes if you are

going for any fund raising through bank loans then at that time also you will require patent analytics. That valuation related exercises whenever done probably they will do that particular activity. So, I guess it is good enough for you to understand information about a patent informatics.

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Now if you see IP management when you are entering into entrepreneurial activity and you want to manage your activities IP contains areas like generation of IP is there. Then protection of IP is there. Maintenance of IP is there and IP commercialization is there. So, these are the what we can say various steps are there and that particular processes you have to manage very well if you want to exploit a maximum benefit from your IP.

So, IP management is dedicated domain and that is particularly used and it is very challenging especially if your portfolio is a very big then it is very challenging to manage your IP. And again digging out a potential IP is the very important and that activity is a part of this IP management.

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Now, moving further IP strategy our course is like entrepreneurship and IP strategy, if you know now this whatever we have discussed that is IP management is there, IP audit is there, Patinformatics is there, IP portfolio is there. These are the different types of IP's are there and yes, entrepreneurship is totally related to IP's, IP and entrepreneurship and saying that these are related then how exactly you are strategizing your IP protection or maintenance or exploitation how you are going to strategize that particular thing.

Because unless until you strategize you are not going to benefit out of that particular, activity after protection. So, I can give you two examples here that is patent thickening and cross licensing. So, what that patent thickening is there? It is like a dense rain of a overlapping intellectual properties. So what happens is that it is also called as a patent floods or a patent clusters.

It basically means that a specific field of technology that is your core technology around that particular patent which is very you are owning it you are developing a wall or you are developing a fence around it and protecting it. So, that your competitor will not reach to your core technology. So that is one of the strategy if you want to be a leader in that particular domain and you can observe big organizations are following that particular strategy.

If their particular core technology is related into that particular X example you can just imagine and around that X technology they will not allow anybody to reach that technology. You can see lot of patents around that particular technology. And this is called as patent thickening and fencing also. Now this is one example. Then I can give you example of cross licensing. Sometimes what happen there are examples like IBM is very good example I can give you it is a leader in IP filing and I have given you in the first session only how much IP they are filing and we have compared it with India filing.

Now, if you see their portfolio it is not necessary it is related to only computer. There are many irrelevant patents also that are not related to their business also. But still they are protecting that particular, particular technology. Now why they are protecting and investing money, time, energy and that IP person is also, human resource is also involved in that so why they are doing that particular thing? They are building their portfolio because one thing is possible they can license it.

If they feel that technology is promising it is totally unrelated I can license it and I can make a money out of that. So that is a one thing. Then there is a cross licensing. What that cross licensing is that? Suppose I want to collaborate with somebody, if I want to collaborate with somebody I can what we can do is like I can say that these are 5 patents you can take that 5 patents and in that return you give me that particular technology.

So, this is like, this is the way by which if there are certain patents which are maybe and your portfolio which may not be you are not using but you can do it by using cross licensing. You can take the advantage of patent.

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Last now we will concentrate what benefits already you have appreciated now. What are the benefits of IP? But I will just quickly give you that what benefits you are getting yes that is competitive advantage you are getting then this is helping you to create wealth because either you license, you sale, you develop on your own that product and sale that particular thing anything you can do or you can assign it to somebody who can develop and you can get a royalty out of that.

Anything kind of thing is possible so is you are getting competitive advantage, you are creating wealth. Then it is you are creating asset and you can use it for fund raising and when you have a



registered IP for example trademark is there, consumers are getting confidence that this is a trademark and from that particular by seeing the trademark., When I say Tata you will buy products because you know what quality Tata will give. So it is a trademark. That confidence is given and then the next is like it is giving reward to inventor. So definitely these are the benefits of a IP. So, with this I guess you are able to appreciate that yes this IP and entrepreneurship is related and your entrepreneurial activity will definitely, definitely have one or the other type of IP.

Now, in the next session we will see one case study and I will give you the example yes that single patent that case study is like single patent which is help inventor to build giant organization. That is from single patent a company is incubated by inventor and the competitive advantage due to patent help to build this giant organization which is worth billion dollar. So see you in the next session. Thank you.

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