

Entrepreneurship and IP Strategy
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Lecture No. 08
Innovation, Market and IP

A very warm welcome in the third module of the week 2 of the course, entrepreneurship and IP strategy, title, innovation, market and IP. Now in this module, we will be discussing how innovation market and IP are connected. In the first week we have tried to understand how entrepreneurship and IP are related.

Now, this whole week we are concentrating on innovation, what is creativity, what is, how, what are the different types of innovation. And now, today we are concentrating on relationship between innovation, market and IP and how they are connected. In 1993, management expert you can say or management guru, a Peter Drucker, he suggested the arrival of a knowledge economy, a new economy.

So, we can just appreciate that thing that we are now saying that we are in knowledge of economy and we are giving importance to intangible assets. And, we are now trying to understand what IP is which is one of the type of intangible assets, but in 1993 there is already said by by researcher Peter Drucker and if you will see and compare the IP development in developed nations and in the countries like developing nations like us, there is a big gap.

So, let us just see how what are the different types of this innovation and how IP is related and how market is getting impacted because of innovation and how IP is helping you in protecting that innovation for the wealth creation. And that is already practiced in the, what we can say the organizations which are there in the developed nations. Now, the thing is that we know that here intangible assets or IP especially, are the power tool of economic development.

It is not like a buzzword or something like a to make a IP more important or something, it is a reality that if we have a powerful IP, and we have already seen the example of a Google, and we have already seen how Stanford University have received the tremendous amount of wealth through this licensing of one patent, and there are many such examples. So, it is not like a we are just promoting IP or we are giving more importance to IP, but it is a fact that if

we have some type of IP, we are able to control that particular what we can say the usage of that IP for offering of a product or services.

Now just, I just remember the example, so I just give you that example. Everybody know about a Pepsi can or a, you have seen that can which is just for that soft drinks are using. Do you know how this can is developed by a teenager, he is a teenager, and he had patented that particular design and the royalty he is getting is like this that arrangement is like this, that anywhere in the world this can will be sold, and that inventor is getting, that teenager who have discover, who had inventor, invented this can, he is getting 1 penny.

But you can imagine that 1 penny per can and you can just imagine how many, what we can say, the market such what we can say soft drinks are sold, and how he is creating only by one design protecting that particular thing, holding that IP with him, he is getting the, what we can say for next 20 years he will get the benefit of that particular thing because it is a patent, in US it is a it is like a that kind of that technology whatever he has given he has done then industrial design protection in our country and in US they will call it as a industrial design or design patent is there.

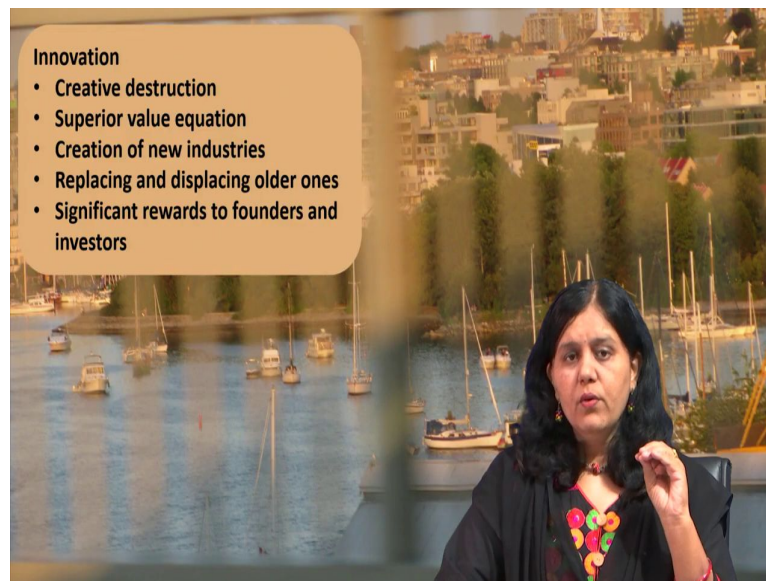
So, anyway means that there are other many IP's are there, but you, I have just given you the example how that one invention helped him without doing anything to get the wealth. Now, also I should point out here that it is not necessary that every venture or every entrepreneurial activity will require IP that is also very clear that if it is a technology driven patent is required, if it is a something like a publishing industry, film industry, yes copyright is very important there.

Then something very design oriented is there, obviously industrial design is playing important role and yes trademark is everywhere, most of the organizations are building up their own, what we can say that trademark they are using it effectively. So, trademark is always with every organization is having that trademark, but I will say that beside that this 3 IP it may be existing maybe, may not be existing with a other type of entrepreneurial activity that is also very, we should appreciate that thing also that that every entrepreneurial, although we are like what we can say we are talking about IP, but we should also know that every entrepreneurial activity may not be requiring this IP protection that is one point I should make out here.

Now, this already we know that IP is like having hidden value and there are like various in the corporations means in the corporation, if we consider IP as a career domain, then already in the corporates there are positions or designations like IP director, then knowledge manager, information scientist, so such kind of designations are already there and the what we can say a dedicated human resources working on IP analytics, then IP what we can say production, its management and mining, so that things are already there in the corporate.

Tangible assets, we are appreciated more and then we know that there are fixed asset and current assets in the organization. Now, we have also know that around with that fixed assets and current assets, this IP that is an intangible asset is also there. So, this is something about background about what we can say, innovation is already there, you are pretty well aware about that particular thing. We know already know that there are types of innovation. And then we know now that yes, IP is an instrument to protect that innovation, and I have just given you the example of Pepsi can and already we have seen the example of Google.

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Now, moving further if we see, if we concentrate little bit about innovation, we know that this innovation is like a when you are doing innovative activity, there is a creative destruction, we can appreciate that thing that there is a creative destruction, especially when you are innovation is a radical kind of thing. We have seen the types and you know that radical innovation if it is there or disruptive innovation is there. It is a creative destruction and completely the offering in the market completely changes with that particular kind of innovation.

I have already given you an example, like when internet came this thing is completely changed, when laser technology came the things have changed or when restriction endonuclease enzyme is invented, things are changed in biology world, so that changes are there, so that that we can understand or appreciate this creative destruction. Now, obviously we are giving a superior value equation, something which is better than the existing you are offering, then only your entrepreneurial activity will grow otherwise it will automatically get killed.

Creation of a new industries is there, yes and you also appreciate that, as technology is moving new areas are coming and there is a effect that the old which are the technologies which are now obsolete completely this kind of what we can say industries are shutting down and yes new what we can say areas are coming up and that kind of activities are obviously growing in the, what we can same market.

And, now in this what we can say scenario current scenario, if you see that change is very rapid and probability is this that if we learn something in our what we can say when we are in a school or in the college, that maybe not may not be applicable when you graduate and come out of the college and something new may come and you have to be prepared for that particular thing to get the jobs or to do your entrepreneurial activity. So, that kind of scenario is there because of the fast moving development of a technology.

Then, replacing and displacing of older ones. Yes, you can appreciate that thing you did not require any explanation for that. And then significant rewards to founders and investors that is a what we can say when innovation is there, and if you protect it through IP definitely you are getting that what we can say the appreciation reward and the IP is one of the form by which you can get the full proof what we can say the protection and you can have a what we can say the returns on your investment which you have done for that particular innovation.

Now, sometimes what happen that if innovation is there, it is a very strong statement I am making but that happen, that there is a life and death matter for the firm. So, the example I am just recollecting that how it can be a life and death matter for the firm because we are making that statement that some innovations will come and some industry may completely get killed.

I am just trying to give you the example of Kodak and Polaroid. So, Kodak you know the traditional the way with the offerings of Kodak and Polaroid come with the instant what we can say now, that digital thing and that yes definitely affected and did affected on Kodak and

the obviously means you can just relate this example of Kodak and Polaroid with this statement which I have made that is a life and death matter for the firm.

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Now, moving further if we see now, we understood that ok this is a innovation and this is making impact, these are the types and we have already said that there are some innovations which may affect the firm and it will be like a life and death for the organization. The learning here is that if that kind of scenario is there, we have to be in a continuous learning mode. And then only we can keep watch, what exactly going on in the market, how technology is moving, what our competitors are doing, so that innovation whatever going on in the outside world, that we must be aware when we are running our entrepreneurial activity or our venture.

Now, when you see the innovation process, I am just now give you idea how that innovation process and that IP, how they are related. And I am making a statement that innovation process and IP process that protection and the further processes of IP management they are overlapping in nature. Now, when you see IP innovation, it starts with ideation and we have seen the that funnel model in the one of the sessions, so ideation is there then idea screening and development is there and I should say that if there are 10,000 ideas, probability is that only 1 idea can be considered for the development that kind of a what we can say selection and screening might be there.

So, that second step is there and then if you substantially develop that particular thing, then the stage comes like invention disclosure, where something you have contributed through your innovation process and you feel that, yes, this is something can be protected by a instrument like a IP. So, this 3 steps are there like a ideation, idea screening, development of project and then the invention (dis) disclosure.

And generally if we, if you see in the organizations, they plan their activity means once they select that and there are models like jolly model is there a stage gate model is there for innovation there are these models are very well established models are there. So, they follow that particular models and they follow the timeline for the innovation process, whatever they are following, it is possible that, you just decide and keep timelines so that your innovation process goes with that time and in time before your competitor comes into the market, your product offering will be available to your customer. So, this is an innovation process.

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Now, if we see the market, how market is giving you what we can say, helping you in the innovation. So, there are two processes, market pull is there and market push is there. Market pull is a concept like a when market tells you, customers tells you that something is needed and you just what we can say cater the needs of the customer and then accordingly you offer your products or services that is a market pull is that.

Market push is there like a, now here, what the thing is happening you are developing something and that offering market may not be interested in that particular kind of offering, what we can say offering or services or product, but you are developing it and you

are offering it to the market and customers or consumers who are using that particular product or service. They say that yes, this is a very good product and yes immediately that will be accepted. And there is a market diffusion of your technology or innovation whatever it may be there.

So, innovation is there, that 3 steps are there, innovation is like a either it may be market driven or it may be organization driven. So, market is helping you as a market pull or there is a market push the entrepreneur, what we can say objective is always this that whatever you are offering market should accept that thing, if it accepts then you will grow otherwise, obviously, you have to shut down your activity. So, that is very clear. Now, next is like a what are the what is the impact on the society if you do that market pull or market push, what is an impact on the society.

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Now, if you see that impact on the society is like a new product or services that it will help the society and lives are easier. They enhance the productivity at work definitely some tasks which may be required for to complete that particular task if you are investing say 15 minutes probably because of your innovation that will be finished in the 1 minute or so, if you give something offering which is a completely automated thing, you may not require to invest a single minute you just start machine and everything is taken care.

Then next is like a improve of a health, if it is a health sector related activity is there, obviously that is directly related or in a other sense also you can see that probability is that if you give more comfort to the society, probably what we can say that it will give the what we

can say wellbeing to the society you can take it in any way that the this point you can take it in a anyway.

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Now, takes moving further if you see now, the IPM process, now we have seen innovation process, market its impact on society. Now, IPM process if you see it goes into three levels, first there is IP generation. next is IP protection and next is IP commercialization. So, the thing is that, I hope you are not getting what we can say boggled up with the terminologies and all that things. So, I just give you idea or repeat it once again, that yes innovation, which have 3 stages, that is ideation, idea selection and invention disclosure. And then we are talking about now the, this IP process or IP management process.

So, how they are related that? I am saying that they are overlapping. So, when I say it is like a ideation stage, yes you are starting with your project. Now, when that idea grows, and you are work on that particular idea started probability is that maybe in a particular time, maybe 1 year, 1 and a half year whatever it may be, whatever your plan is, you can just say that, after 1 and half year, there is a possibility of generation of a patent and we know that there is a or eventually also, you will come to know in the patented week, that yes, there is a provisional patent, there is a complete specification.

So, you will understand that particular thing, but what I am saying here are why I am saying it here, it is because before your final product offering or before that ready, you are ready with a final thing, there are like processes or there is a patent system which allows you that if you are confident about your invention development or your innovation process or what we

can say the planning if you are confident and if you say that within 12 months, there is a possibility of something which is very substantial then to prioritize or to get the what we can say to claim that particular innovation you file a provisional application.

So, you will come to know about that provisional application in the patent week, which is a fourth week. So, this much as enough for you now, but the thing is that that you should know that there is that arrangement of provisional application and we have to use it effectively. So, that we can secure the in the whatever your contribution is there you can secure that, so this is a IP generation, then you are taking decision about the protection that is a, I have given you idea about a provisional application.

And then obviously, next is once you do that protection then complete specification, immediately you can go for the IP commercialization. So, these are the 3 steps which are what we can say IP related processes are there. So, innovation 3 processes and IP management 3 processes are there.

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Now, moving further, if you see now that two IPM process and a innovation process if you keep parallelly, what the thing happen, that ideation stage of a innovation and IP generation stage of IPM, if you keep that these are the parallel one we can call this as a pre IP stage, you are just starting your, what we can say the project and at that time you are concentrating on generating something. Right? So, that we call it as a pre IP stage, IP is not still what we can say evolved, but that is a value creation stage.

Now, next step is like this that you have moved further and now you have done that idea screening and already your project is started and now you are somewhere that yes, you can say that there is a potential IP and we call it as IP protection stage in IP management. So, here you have to take a decision that whether you should go for a protection of that particular potential IP whatever you are identifying that identification, timely identification is very important. Now, why I am saying it you are not the one who are just working on that problem, there are many people are working on that problem. It is like maybe 10 12 20 people are working in the world from on the same problem.

So, we have to prioritize that particular thing. So, you have to do that provisional application related decisions in this stage that is IPR stage. And the third stage is like a IP commercialization, it is a later stage. Once you get that application number complete that complete specification you have to take decision that I have to how I can commercialize my particular IP.

Now, that is a invention disclosure stage here you are doing that invention disclosure maybe if you are going for provisional you have done it earlier only, if you are not going on provisional then you are done in the later stage, but once you do invention, disclosure, your IP is protected and immediately as we know that, once you get that application number, you can start the commercialization IP commercialization.

So, what we can say that so, I will suggest that do not get confused here, there is a two different types of IP's, provisional IP protection with provisional IP and complete specification is there this diagram is with respect to complete specification and therefore, you are seeing that invention disclosure is there and then the IP commercialization is there.

If you take a provisional application related decision, you are doing it in the that protection or invention disclosure will happen in the earlier stage only and you can take immediately the protection decision and then immediately you are what we can say you will work on that obviously, without that you are not going to the market and you will start the negotiation fundraising related to the IP commercialization. I guess it is pretty clear here.

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IP types	
Pre-IPR stage	Potential IP
IPR stage	Unused IP
post IPR stage	Used IP

Now, next moving further if you say that as we have seen that, ok these are the 3 steps of IP management, these are the 3 stages of innovation. And then we have seen that, there are pre IPR stage, IPR stage and post IPR stage. So, we can say in every stage there are IP that there is a presence of IP that is in pre IPR stage potential IP is there. In IPR stage there is unused IP because you have just protected it and post IPR stage there is a possibility that increase in the used IP.

Again, I make a point here that it is not necessary that every IP will be commercialized, because many times the thing is that you are doing IP protection for a strategic reasons also. So, only thing is that in post IPR stage percentage of used IP is expected to be more. So, these are the 3 types of IP. So, what is the meaning of potential IP? You have just identify, identifying that and you are taking decisions related to its protection that is a potential IP. Unused IP, ok you are protected it maybe it is in a provisional stage of production, or it may be in a commercialized, complete specification related state which will, it will move further when it will go into the post IPR stage.

So, but that is a unused, unused in a sense, still you have not started the what we can say commercial activity be using that particular IP and next it is expected that in post IPR stage you have something which is a used IP that once you have done that complete specification you are taking a decision of commercialization and yes that particular activities you have done and you have done the that product or service is now in the market based on that particular IP and that we call it as a used IP.

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Now, moving further if you see now that this kind of what we can say the relationship is there that potential IP then there is a now used IP a new unused IP is there and then that innovation related processes are there. Now here, what I will do that I will share with you a video of a Siemens, Siemens we can say the it is a, like a number of an organization in electrical engineering and heavy, heavy and electrical engineering and if you see the history of 170 years of that Siemens you can see that how innovative this organization is, and how it is a thinking, how this organization thinking ahead of time and what are the different offerings of offerings are there by this organization, so please enjoy the what we can say the journey of Simmons here in this video.

So, I hope you have enjoyed this video. Now we will just summarize whatever we have learned till this time.

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So, if you see that innovation process, we have seen that ideation, ideas screening and development of project and invention disclosure, 3 stages are there. Then we have seen that ok parallel to that when I talk about IP management, there is IP generation, IP protection and IP commercialization these 3 stages are there. Now, when we see that this through two processes are going on, we say that, ok in pre IP stage there is a development of potential IP, in IP stage, there is a generation of unused IP and in post IP stage there is a generation of used IP together we can call it as an integrated IP portfolio.

So, it is existing in your organization. Now, what now, when you see this thing as an entrepreneur, how you have to be alert that is a simply I can give you the tip here that if you are in a technology driven especially, you have to be very alert when you are technology driven or what we can say if your venture is that way you just this there is a patent analytics processes are there, business analytics processes are there, big organizations follow that particular thing.

Probably if you are a startup mode, probably you may not be aware of these thing and you may not be having that kind of a human resource and all, but I will suggest you in the later in the patent mode, you come to know that there are 3 databases are available. You know the, you may you may come in know how to explore that database, you can see the patent trend that will help you to keep watch how your technology is growing that is a one important thing, so that you will be aware, ok this is my domain and innovation is moving in this way that is one thing.

Second thing is that now you know that it is not the case, this is a general mistake people do that they will complete all innovation related activity and later they think that, now I can go for a decision I will make about IP protection and all that thing. And that is a big mistake happen. You have to plan IP related protection and its activities, when you select a project that time only.

So, probably you start with a innovation, some innovation, already something in your mind, it is right time, you have to think about a protection of that IP, think about whether any IP is there and take a decision related to protection of that and try which IP is more suitable to my venture because selection of that IP is very important, whether it is a patent or copyright that you have to select and you have to concentrate on that particular thing that is a very important thing is there.

And keep watch intermittently, maybe you can have some annual or some 6 monthly review kind of thing and check if there is a potential IP whether there is unused IP or used IP and try to explore that particular thing. Maybe in the starting stage, it will not be that much. But chances are there at least you can dig out 1 or 2 patents, or at least 1 patent or something which you feel that yes, I can develop or concentrate on this particular technology more, so that I can have some IP which I can protect, and I can use it strategically any kind of thing is there.

So, I guess this will help you to what we can say keep, be competitive in your domain. So, I guess you now appreciate that innovation, then this IP management and this what we can say a different types of IP's, they are existing in your organization, now also, and you just please check whether it is there and how you can make best use of that. So with this, we come to the end of the session. See you in the next session. Thank you.

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