

Intellectual Property
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Lecture - 64
Managing IP

So far we have seen how intellectual property rights can be developed, how they can be protected, sometimes by way of registration and how they can be enforced before a court of law. Intellectual property rights makes sense for businesses, because it gives them a strategic advantage in the market. Now, let us look at how intellectual property rights interact with businesses, and how businesses manage intellectual property rights?

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How to manage IP?

- Complexity of today's businesses
- Cumulative nature of innovation
- Too precious to be left to the lawyers
- Fragmentation of IP
- Is IP in sync with the go-to-market strategy?



Now, how do you manage IP? Today's complexity of business requires any business, be it small or big to factor in various considerations in the course of running their business. There are issues with regard to innovation, especially that arise out of technology and knowledge centric businesses, which have to be kept alive, not only it is innovation important for businesses to survive, but they also need to constantly improve upon what they have already done to remain relevant in the market. So, the cumulative nature of innovation puts stress on the business, not only to channel the investments that come into the business towards new products and new processes, but also to ensure that the investment that is being made into innovation is also protected.

Intellectual property rights protection is too precious to be left to the lawyers, you will see that the best managed intellectual property rights in businesses come from an interdisciplinary approach that the company takes; it is just not something that the legal department of any company or any organisation should be concerned with. In fact, you will find that strategic management of intellectual property rights would cut across the organisation and it would be relevant for everyone in the organisation to know how to protect the IP.

And this is especially important, when there is fragmentation of IP. By fragmentation, we refer to different types of IP that would fall under different parts of the organisation for instance. R and D or the products that come out of research and development from a organisation would be protected by the R and D department and we could expect some kind of an intellectual property management cell or a patent cell in an knowledge centric enterprise to be taking care of the patents. Whereas, trademarks over the products could be protected by say the marketing department or marketing division of that organisation.

If they have copyrights over their products that could fall within the purview of a legal department. So, in an enterprise that has different functions and that has products coming out covering different aspects of intellectual property rights, it is strategic for the organization to have a policy that cuts across the different types of IP and not to have a fragmented approach, where certain IPs are held by certain parts of the organisation.

So, what organisations need to look at is to understand whether the intellectual property right is in sync with their go-to-market strategy. In the sense that the products that (Refer Time: 03:56) coming up with should be protected right from the time of development up until they hit the market and also be on that.

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Who manages your company's IP?

- Sales & Marketing
- Legal
- Finance & Accounting
- R&D/Technical
- Human Resources
- IT
- IPR



Now, who manages the company's IP? There already mentioned that IP could be fragmented in an organisation. So, in some cases, especially the things that pertained to trademark which is connected to marketing, it could be the sales and marketing. It could be the legal department, which looks at copyright and other related issues.

It could be the finance and accounting department, especially if there is royalty coming out of the IP. It could be the research and development R and D and the technical department, which could be looking at technological innovation, especially when the company has products that can be protected by patents.

It could be the human resources department in certain companies, where the most valuable resource of the company or the people who work for it and they generate the IP, so it could be the HR department that is looking at protecting IP. In tech companies, it could be because they are largely IT company, it could be the department that is in charge of developing new technologies. And in some cases, you could have companies constituting their own separate patents or an IPR departmental itself. So, you have a separate group, which controls or which is in charge of all the IPRs that is generated in a company.

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Integrated Management of IP

- Different forms of IP (trademarks, patents, copyright, trade secrets) managed together
- IP management is integrated with overall business model design and corporate strategy



An integrated management of IP would require different forms of IP, trademark, patents, copyright, trade secrets to be managed together. And the IP management has to be integrated with the overall business model design and the corporate strategy. Now, when we look at case studies later, you will find that most of the successful models of IP protection have revolved around the business model and the general corporate strategy itself.

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Managing things together

- Marketing and Branding
- Enforcement and Franchising
- Sell or License
- Open or Closed innovation



Now, IP as we mentioned, because it falls into different buckets, they have to be managed together. So, trademarks pertained to marketing and branding and were the use of trademark could also extend to franchising. So, if you are using trademarks, then it is not just so, if you are using trademarks to protect your products, your concern is not just about branding and marketing your product, but also looking and how you can extend the trademark into your franchising agreements.

So, if you start a chain of restaurants and you are successful, and you want to franchise that, then you would protect your products through a mark. So, that when you have a franchisee working for you, apart from regulating the quality that the franchisee delivers, you could also have a licensing on the brand and a licensing on all the techniques that are transferred from you by way of a know how agreement that can be a contractual agreement.

But, again you see that the strategy goes beyond just protecting them. Now, you are thinking about how can you take your trademarks beyond your organisation and how can they be franchised to others and you can enforce them by stronger agreements and by protecting your brands through trademarks.

So, companies can take a call on whether they want to monetize their IP by sale, if it allows them to do that or through by way of a licence. In some cases, though a product is sold to the customer, the company may have a contract with the customer to say that though there is a sale, there is in effect a licence that the person is purchased. Most of the software that we use or licensed software, though we may get an impression that we have bought the software for a price.

So, in many cases, a sale would extinguish all the rights that the right holder has, whereas licences would ensure that the licensor has retain certain rights and only limited rights has been transferred to the user. So, in deciding how a company or an enterprise will monetize it is IP, it needs to decide whether it is going to use sale as a way to monetize its products and services or whether it is going to use the licensing model.

The company can also look at models for innovation, it could have a closed innovation model, where in the innovation happens within the company just between it is employees or it could also look at an open model for innovation, where certain aspects of the

innovation, which can be put out into the public, the company can look at crowd sourcing ideas from the open market.

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Integrated management

- Firm's business strategy: How to become inimitable
- Intellectual Property position: How to extend IP protection
- Business model choices: IP and Non-IP
- Timing decisions: When to protect IP



So, integrated IP management requires intellectual property management to be tied to the firm's business strategy. Now, the focus in doing this is how to make the business strategy inimitable, so that others cannot copy it. The intellectual property position should be to ensure that whatever can be protected by way of an intellectual property right is protected. And further to ensure that the intellectual property right that has been created has an extended life.

Now, the IP position of most companies is to extend the life of the IP. Now, this is important for us to understand, because not all intellectual property rights have the same life, we had seen this, patents have a 20 year life, designs have a lesser life 15 years, copyright has life of the author plus 60 years. Whereas, trademarks can have unlimited life as long as they are extended the trademark can be kept alive just by renewing and paying the fees.

Trade secrets again is something that can be kept alive for a long period of time as long as it does not fall into the public domain, the trade secret is regarded as a proprietary secret. So, the intellectual property position of any company which has different forms of IP rights with it would be to ensure that the IP protection is extended over a period of time.

Now, if the protection is only with regard to one type of intellectual property right say trademark, then the trademark itself can protect the companies brand and as and when new products come in there are going to be different trademarks filed over the products. So, if you adopt the trademark strategy for protecting your products, your company's name would definitely be covered by a trademark. And every time you come with a new product, you are going to file trademarks, which are unique, which cannot be copied, so that there is protection extended to every new product that comes out of your company.

Similarly, if you are going to take a single point strategy in protecting all your products by way of patents, you would file patents as and when you before you release a product. And you would also try to create a portfolio of patents around the product, so that infringement cannot happen easily. So, patent portfolio management is using a host of patents covering different types of approaches on your product, so that you close all the ways for competitors to imitate or to copy you.

Now, this can mean different things, one it can mean you file more patents covering different aspects of the technology, different varieties or different variants of the covering different aspects of the technology, covering different improvements additions and variants of the technology, so that competitors do not enter into your field. It would also mean that as in when your patents are expiring, you file new patents, so that the life of the technology is extended.

So, in a product, where constant innovation is possible say every few years there is a new addition or an improvement made to that product. Then it is possible to extend the life of the product by filing patents to cover those improvements and innovations that come over a period of time.

So, in effect, the life of a product would be beyond the life of a patent and we are talking about improvements that can be constantly made around the product. And in such a case, you will find that a portfolio of patents can cover a product, even beyond the life of the initial patent. Say the if the initial patent expires in 20 years, but the product is something that is relevant and you can make technological additions which are valuable to the customers, then you could be filing patents as in when you make those improvements. So, this is called patent portfolio management again, this is a single point strategy.

In the earlier example, they were just trademarks using it. In the earlier example, they were just trademarks used to protect series of products. And in this case, you use only patents to protect a series of products. A publishing company may use only copyright to protect a series of products. So, every time when new book comes, the company ensures that there is a copyrighted notice on the book and it is vigilant in protecting infringement.

Now, as a part of integrated management of IP, a company could also adopt a business model to get an edge in the business. Now, the business model maybe type 2 IP protection, it could also be a non-IP business model. In the sense that the company has an exclusivity in the field, even without using IP. Now, integrated management also requires you have to take decisions on timing, when to protect the IP.

In some cases, an IP may not be a ripe enough for a particular form of protection. For instance, there is a nice detailed write up about a technology, but still the right up in itself cannot manifest itself into a product or a process, which is a requirement for filing a patent. But nevertheless, the detail (Refer Time: 16:21) is valuable for people in the industry. And if you want to monetize that or if you want to share it with an investor, there is a danger that the material that is disclosed can be copied and it can be commercialized without giving you due credit.

So, in such cases, it is possible for a person, who owns the IP to have a confidential information protection by way of a non-disclosure agreement an NDA and disclose it to people, who would be interested in investing into the technology and file a patent at a later stage. So, the timing of the need to bring an IP protection and which type of IP protection can be critical with regard to how IP can be managed.

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Inimitability of Business Models

making competition irrelevant

- Intellectual Property protection law: Patents, ®, ©, Designs etc ^{IP}
- Business Model management: Blue Ocean Strategy ^{"NON IP"}



Now, with regard to inimitability of business models, all businesses are interested in making the competition irrelevant, because that is the way in which you can have an edge over the competition. And if you make competition irrelevant, then you are exclusive in your market. And exclusivity can be (Refer Time: 17:41) by different ways, law does not promote exclusivity or monopolies that is why we have a competition commission and we have competition laws, which prevent one person from operating in the market, we want multiple players to be in the market, so that the customers get the benefit.

But, businesses constantly come up with business models that are legitimate, wherein they make the competition irrelevant. For instance, if you take software, majority of the computers run on Microsoft operating system, there are some, which run on operating systems developed by Apple and there are also others, which run on open source systems. So, now we find that just by having a business model, you could find just by having a business model, you could develop a strategic advantage, wherein you make your competition irrelevant.

Now, intellectual property gives you one of the tools to make the competition irrelevant. In the sense that if the subject matter of your product is protected by say patents or by trademarks, or by copyright or by design, then you have an advantage, which others do not have. For instance, no company can sell Cola branded as Coco Cola, because it is

protected by a trademark. No company can sell shoes with the brand Nike, because that is protected by one company by way of a trademark. So, intellectual property rights give you a strategic advantage in protecting your business. In such a way, that the competition cannot imitative.

The other way if you do not use intellectual property, you could still protect your business model by a strategic business model management. For instance, there are various strategies; one that we have mentioned here is the blue ocean strategy. A blue ocean strategy is where you again make the competition irrelevant, but by non-IP means. So, this would be a non-IP way of protecting intellectual property. So, this would be a non-IP way of protecting businesses, whereas intellectual property would be what we call the use of IP to protect a business.

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Managing Together

(combining law and management)

Two kinds of IP:

1. Limited Life: Patents, Designs, Copyright } *20 15 life + 60*
2. Unlimited Life: Trade secrets, Trademarks } *←*



Now, protecting intellectual now, protecting businesses or having a strategic business advantage involves combining both law and management. Now, there are two kinds of IP, which management scholars have identified, which is very different from the perspective of legal scholars. Management scholars identify IP and put them into two baskets, they are aware of the fact that there is fragmentation of IP. You have IP, you have different types of IP protecting different things, you have patents, designs, copyrights, geographical indications, trademarks.

You have patents, designs, copyrights, trademarks in a host of other rights, but they are also aware of the fact that for businesses, what is relevant is the fact that some of these rights are limited life IP, whereas others are unlimited life IP. So, you have patents, which have protection for 20 years; designs, which have with have which can have protection for protection for 15 years; copyright, which can have protection for life of the author and plus 60 years after the death. Now, all these rights all these three rights have a limited time period within which they will remain relevant.

And we are already mentioned if you have a single point strategy, then you will be filing more patents one after the other, so that when your patents expire, you can have new patents covering up aspects of your technology that you have developed. But, if your technology is static, say for instance a pharmaceutical drug which can cure a disease, no matter how many innovations you come across around the innovation that is the drug for treating a disease, they may not be substantial they may be regarded as trivial, they may be regarded as incremental.

So, some countries, specially like India, there is a bar on protecting incremental innovations, when it comes to medicines. Because, the medicine the first time it is launched, it does its job of curing or treating the disease. So, every time you come up with a slightly more efficient medicine, it is essentially or the law presumes, it is essentially the same drug that does the job. So, the law is not interested in granting monopoly or an exclusivity, in cases where the drug does the same job.

So, whereas, in other technologies such as fast moving consumer goods, you could have product innovations that are substantial. Now, if you are seen the diaper industry, if you are seen baby diapers as a product it over the period of time, it had seen host of innovations and all those innovations were protected by separate intellectual property rights. So, the first category is the category that we call limited life IP and if you have to have a single point management strategy, then your approach will be to file more and more of the same right. So, more patents protecting technology, more designs protecting, all new designs that come out of your organisation, more copyrights that protect the publishing, more copyrights that protect copyrightable works that come out of your organisation.

The other kind of IP that management scholars have identified, are what they call the limited life IP. In limited life IP, you have confidential information, what we also referred to as trade secrets and you have trademarks. And the effort of management scholars has been to ensure how they can translate this limited life IP into this unlimited life IP. Now, the objective is to ensure that the exclusivity that IP enjoys continues for a longer period of time.

So, the objective in managing IP, when you manage IP together, there could be a possibility and we will see the case studies where it is possible to translate or to move the value from a limited life IP like patents, design and copyright into an unlimited life IP like trade secrets and trademarks.

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Case Study: Pilkington Glass

Plate Glass vs. Float Glass

A process that uses molten tin to create the surface of a glass sheet was developed in the late 1950s. The glass, in liquid form, was poured onto the tin causing the lighter glass to float. The resulting product, "float glass," had an extraordinarily smooth surface and required much less sanding than products made using earlier techniques. Today, glass for commercial use is almost entirely float glass, and plate glass is used only in very rare cases.

Float glass is less expensive to produce than machine-made plate glass. It also has fewer irregularities. There is little room left to wonder at how easy it overtook plate glass as the favored material to use in new construction.



One of the companies that did this successfully was a company called Pilkington glass. Now, Pilkington glass came up with a patented technology for creating float glass, now this was many years ago. So, you need to understand that float glass was a technology, which replaced the existing technology that was plate glass.

Now, this process involved pouring molten tin to create a surface on a glass sheet, wherein the glass would float on the tin, because it is lighter. And the resultant float glass was smooth and it will require less grinding and sanding than the normal plate glass required. So, the float glass technology in effect was more efficient and it also reduced the existing process that was there the Plate glass technology.

Now, today the world entirely has moved towards Float glass and Plate glasses used only in rare cases. What this did was, it brought down, it made it less expensive to produce glass. And the introduction of float glass was done by Pilkington, which is in British company, they had to convince quite a lot of uses of their technology to say that they could be substantial savings. And they were slowly able to over a period of time since 1960, they were able to move the entire industry from producing plate glass to float glass. Float glass was better, it was more efficient to make and it was also cheaper.

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Case Study: Pilkington Glass

- Patents and Trade Secrets; Pilkington Group
 - Float Glass /Plate Glass
 - Grinding and Polishing Process replaced
 - License industry incumbents (scope: restrictive)
 - Rapid price reduction and acceptance of technology
 - Protection: Patents, Trade Secrets and Licenses



How Pilkington did this despite being a small company was by combining patents, which is a limited life IP and trade secrets, which is an unlimited life IP. Now, they license they technology across the globe mostly to commonwealth countries and they had licenses in such a way that any improvements that were made could be transferred back to Pilkington.

Now, the rapid price reduction and acceptance of technology ensure that the technology spread quite quickly around the globe, whereas in United Kingdom Pilkington was manufacturing the glass on it is own. So, it reached the point that the cost of manufacturing glass outside United Kingdom using Pilkington's technology was cheaper than for Pilkington to produce it within UK. So, Pilkington even used this opportunity to import glass into Britain.

What Pilkington achieved here was initially when they came up with the technology, they protected it with patents and with their collaborators, who were using their technology, they had a trade secret agreement to ensure that the secrets the knowhow, which were a part of the trade secret were kept a secret. And they also had licensing terms, wherein there was no further payment of royalty, but there was sharing of knowledge from both ends.

This made Pilkington become a dominant player in the industry and it also saw the world move away from float glass technology to plate glass technology. So, float glass technology used to be in the market from the 1920s till the 1960s. And since 1960s, the entire industry globally move to the plate class. Now, this achievement is attributed largely to a combination of techniques in managing IP. And scholars have said this has come, because Pilkington was able to translate their patents, which were limited life IP into trade secrets, which has unlimited protection.

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Case Study: Dolby Laboratories

“I have a general principle that I follow: I don’t go into any area that I can’t get a patent on. If you don’t stick to that approach, you quickly find yourself manufacturing commodities.”

- Roy Dolby

- Patents and Trademarks: Dolby



In another case study, which involves Dolby laboratories, the company initially had patents, but then it converted the value towards trademarks and as you know that most of us know Dolby as a trademark than for the patents that they own. And this is what Roy Dolby, the founder of the company had to say I have a general principle that I follow, I do not go into any area that I cannot get a patent on. If you do not stick to that approach, you quickly find yourself manufacturing commodities.

So, a way in which Dolby has been able to get this recognition over a period of time was because initially they were protected by patents, but over a period of time, they were able to move the value that that was there for them in the patents to their trademark.

So, every product that you buy, which has Dolby on it or every sound system that you experience with this mark. We attribute technological advantage or a technological superiority just by looking at the brand, you may not know what is the technology behind it, but by looking at the brand, you attribute that it should be cutting edge. So, this translation happened over a period of time, and that has been a successful translation of how you can translate the value from limited life IP, in this case patents to unlimited life IP such as trademarks.

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IP Strategy

- Integrated with business model
- Different Types managed together
- Legal, financial, HR, Technical
- Jurisdiction specific



So, the IP strategy should be to integrated with the business model, to ensure that different types are managed together. So, that it is not confined to legal financial HR or technical rather there is even if it is in these places, they should be a common understanding of who is doing what. And it should also be jurisdiction specific in the sense that you have to understand the laws that protect the IP.

As I mentioned, there are certain incremental innovations pertaining to pharmaceutical substances, which are not protected in India, but they could be protected in say the United States. So, you should also understand the differences and protection offered by different countries, before you can develop a comprehensive IP strategy.