

Entrepreneurship and IP Strategy
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Lecture: 05
Case Study I – IT Industry

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A very warm welcome in the fifth module of week 1 of the course, Entrepreneurship and IP Strategy, title Case Study I – IT Sector, Google. So, in this module we will share with you a case study of how a single patent can provide competitive advantage to build an organization. This case study is from IT sector. I feel this case study is a right representation of combination of inventorship and entrepreneurship.

Inventors, very passionate about their domain, invents very unique technique. College going students, these are the inventors are a college going students, appreciate importance of IP and protect it. And, later develops their own venture and today you know it as Google, a subsidiary of Alphabet Incorporation.

In previous session I have shared story about Paris Convention and how it is related to entrepreneurs and inventors. I will add little bit more about IP and that history before going further into the Google inception and its journey. Intellectual Property Right system, if you see the history it traces its roots back to 3200 BC. Renaissance Northern Italy is thought to be the cradle of IP System.

The first copyright, can you guess? It was issued to a printing press invented in 16th century. The first patent, it was issued in Florence in 15th century to floating architectural crane, so you can imagine copyright in 16th century, patent in 15th century and trademark is the oldest category or a type of IPR.

In any organization that is planning its entry into the market should definitely keep IPR in mind because the benefits, just in the previous session we have seen the benefits that benefits will not just make you richer but can far outweigh the other tangible benefits. So, as you got the idea about first patent, copyright and so on now we will check example how this giant organization started its initial journey.

(Refer Slide Time: 03:07)



So, do you know who is a founder of Google? Any guess? Just check this picture on here. Any guess now? Yes, Mr. Page and Mr. Brin. These are the founders of Google. Do you know which university they were studying together? Okay, I am giving you a hint. Some details related to patent I am giving you which probably will help you to know which University they were associated. Check this details of a patent.

(Refer Slide Time 03:35)



So, you can see here publication number then publication type, application number, priority date, inventor; yes, Page is an inventor and see now the original assignee. Yes, so this information on the screen whatever you are seeing and the details like publication number, publication type etc. . You can get details and what exactly that it.

We will go through in one of the modules in week 4 and there you will get idea about this details like publication date then priority date. But, now you just see who is a assignee. So, here these inventor is a Page and he is associated with, yes, Stanford University.

(Refer Slide Time: 04:26)



So, can you guess now that how much fortune Stanford University made from this patent? This patent which was responsible or which from which this big giant was, what we can say its journey started. Google made in 2005 approximately 336 million dollars. You can just imagine one patent and university got this much amount from that patent and I can give you the example more that this is not the only highest licence fee or licence or royalty whatever university has received.

I will give in a couple of minute another example but not we will just see what is a current status of Google. So current as, currently you know that Alphabet Incorporate, it is now the American Multinational Conglomerate.

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It is headquartered in Mountain View, California and it was created through a corporate restructuring of Google on October 2, 2015. The parent company Google and several former Google subsidiaries are there and current revenue of this organization is 161.90 billion dollar, this is the current status. So, this patent it is filed as I have given you the information that it is filed in January 1997 and the organization was founded immediately in September 1998 in California.

Now you know YouTube and this Firebase then these are like subsidiaries of Google and founders are very well aware now that Mr. Page and Brin are the founders. So yes, it is a very interesting story and before going into details I will just give you Stanford and a various types of or various starts-up which are started in Stanford.

So, a few examples are Cisco, in these days Cisco everybody is using it for online platform, yes. HP, Nike, Pay Pal, Netflix then Yahoo, Linkdin, Snapchat, Instagram, Coursera, Dolby Laboratories all these are from Stanford University. So, students who are graduated from Stanford they have started these organizations.

And, one more information I would like to give that probably you might be thinking, , Google is a company which has given the highest revenue to the Stanford University, answer is no. There is another, what we can say patent which was related to biology and it was like a this is monoclonal antibodies and that monoclonal antibodies this has given the largest revenue to Stanford University and it is approximately 613 billion dollar.

So, you can imagine almost double the Google, royalty received from the Google. So you can imagine that one patent, universities protecting it, universities also getting royalty, inventor is building the organization and you are saying see the results now and if you want to know more, any, what we can case study from a Stanford we have in the earlier course Road Map for Patent Creation.

We have recorded one case study of Genentech and that is also Restriction Endonuclease related this case study is there. You can just go through week 1, module 5 that is related to this patent and how exactly the, that that was a very interesting story and probably you will enjoy that going through that case study also and it is also related to Stanford.

So, here when we, if you get now the pretty well idea okay this is a university, these are the students and these are the big giants which their inception is in this university or either these inventors or founders are related to this university.

(Refer Slide Time: 09:02)



Now, I can give you a one quote from very, a Xerox Organization. He is a Xerox Organization businessman. I am just that quoting that quote 'I am convinced that, you just see what Richard Thoman is saying. He says that "I am convinced that management of intellectual property is how value can be added," so it is for a value addition. "Increasingly companies that are good at managing IP will win and those are not will lose."

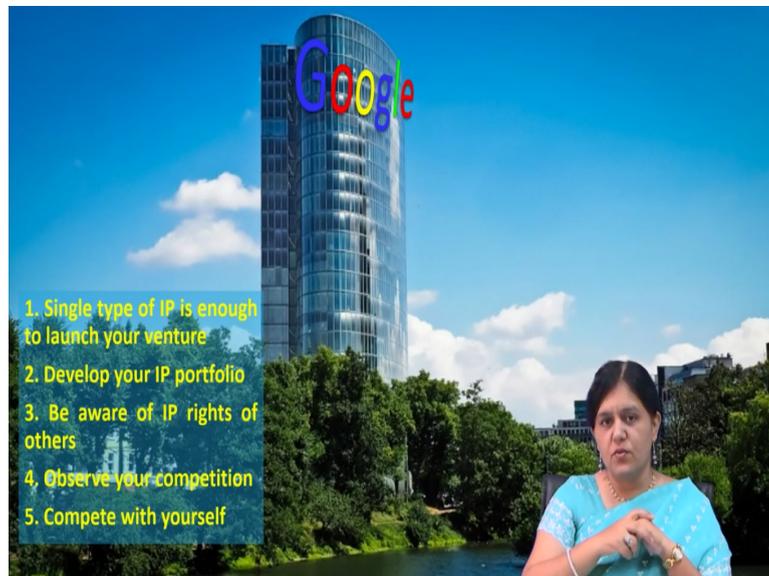
So, this is a very doomsday prediction. It was made by American businessman Richard Thoman and when he has done this (state) given this statement or this comment, he, when he was appointed as a CEO of 20 billion dollar Xerox Corporation. So, at that time he said in 2000. We are in 2020 now, in 2000 he has given this statement and he clearly said that those who will not understand the value of IP they are going to lose.

So, this is like what we can say you can appreciate the value intellectual property and I have already given you a few examples of a valuations of a trademark like this we have seen Google or Microsoft that valuation, I can just add a few more that is Tropicana trademark. That is a, trademark is a type of IP and its value is like a 1 billion dollar.

You can imagine that Tropicana 1 billion dollar only that trademark value. Then Marlboro is there, that trademark is worth up to 40 billion dollar. So, you can imagine that one word, now are also seeing here. Google, that is a one word and its valuation is like more than 50 billion dollar. So, you can imagine that one word is giving that valuation to the organization.

So, that is the value of IP which you can appreciate. So, let us see now the success story of these inventors Page and Mr.Brin who built this giant organization.

(Refer Slide Time: 11:17)



Now you will see this case study under 5 main points. So the first point. Single intellectual property right is enough to launch your venture and this is well proved by Google. A strong single IP right can give an edge to your new venture and also makes your entry into market comparatively easy. IP can build a fortress around the organization and protect it from competition.

To leverage IP correctly it is important to know the IP focus of an organization. For example if you are a technology driven start-up then patents will play a major role besides copyright trademarks and industrial design but if your start-up is in the business of movies then copyright will be the king. That will be the most important IP.

If start-up is related to games or animation then industrial design along with copyright will take the prime position. We have just seen that Google that first patent US6285999,, we have just seen patent. It was filed in January and it is called as a page rank patent, it is related to page rank. It was a link analysis algorithm.

This patent was assigned to Stanford University. As a rule, always it is the rule, policy of an organization is that universities always a assignee or an owner of that patent and a student or a professor who are associated with that particular university will be the inventor. Same thing

here Stanford is an assignee and then Google at the time and what happened this technology it was developed by Brin and Page when they were Ph.D students at Stanford University.

Now Google had an exclusive license rights on this patent from Stanford University. Later on the founders purchased that rights from university for about 1.8 million shares of Google in exchange of use of patent and then as I have mentioned in 2005 university altogether sold the shares for 336 million dollar.

Both institute that is an assignee and a student inventors rightfully exploited their IP rights to build today's tech giant Google. Page rank IP also holds a trademark protection, so you can imagine that yes page rank it is like a trademark, it is like protected by a trademark also. So patent is also there and trademark is also there.

Second, develop your IP portfolio. So, it will be a good idea for a start-ups or any business to align core competences of business with their IP strategy. This helps to build a strong IP portfolio. I have given you an example of a Siemens and only patent portfolio of Siemens. In the previous session we have seen that 60,000 patents are hold by Siemens.

So, what we are trying to emphasise is that build a strong IP portfolio. Almost all patents are Google are in computing, calculating and counting domain. So, that is a domain so you can imagine, you can just appreciate that this is the domain and in that domain, that IP portfolio is built. This Google follows a very focused innovation and IP generation process. For example in computing space Google has registered a patent to detect events of interest in context of a network traffic.

It is registered as a US7970934, that is a patent number. So, in this case Google has registered the patent which forecast the traffic that will come to the Google search page to search information about any event of interest like an say for example earthquake. This helps them efficiently manage site traffic and improve user experience.

So you just imagine how exactly that patents are there and you are doing search on Google but you can imagine the what technology is going and that technology is already protected by (pat) patent by this organization.

Now the third one. This third one is like a "Be aware of a IPR of others". Now it is advisable for start-ups to know the IPR of others to avoid infringement because by ignoring also by

ignorance also you should not infringe anybody else's IP. Remember lord does not forgive ignorance, so no point pleading ignorance in case of a lawsuit.

In October 2006 when Google acquired YouTube and this is a very good example of mergers and acquisitions. Organization like Viacom and English Premier League filed lawsuit against YouTube for a violation of a copyright. Viacom said that more than 150,000 unauthorised clips of material owned by Viacom were viewed on YouTube and Google had to pay up for this unauthorized use of Viacom's IP right.

So, you just imagine it is a copyright infringement case. Viacom is saying okay YouTube, on YouTube we are holding copyrighted material and now Google is owning that particular thing and this was a result of that that you may be ignorant about that particular thing but you have to face the legal issues if come. You have to you have to handle that case.

There was another case also when Google case like a copyright case is there. That is what Google has started probably out of ignorance we never know but they faced the issue that what they have done, they have started scanning books and you can imagine book copyright is there and copyright term is a like authors, in India it is a author's life plus 60 years and you can just imagine that if somebody is copying that book and making it available online freely.

This is a big copyright infringement and that was a, it was a Google faced that. They have handled that thing but this is like a IP issues come when your organization is growing and if you are unaware you may face this litigations and that will be like a sometimes , it will be a headache for you or it may be a loss of fortune, branding image damage all these things can happen.

And, therefore it is necessary this third point that is 'Be aware of IPR of others'. Now the fourth point. So we have seen single intellectual property right is not enough, it is enough for launching. It is good enough. If you are more than that you become very competitive. So that single intellectual property good enough. Second thing is a develop your IP portfolio. Third is a 'Be aware of IPR of others'.

Now the fourth one is a observe your competition. Besides an internal focus it is desirable to keep an eye on your competitors IP development and in the previous session only we have shared that competitive intelligence report that every organization, big organization follows periodically. So, for example I take a example of a FMCG. Suppose you are associated with a

Unilever FMCG and you want to keep watch on a FMCG interest fee obviously for example you will keep watching PepsiCo. You will keep watch on General Mills.

These are the leaders in the that domain like top 10 organizations. So, what you do you do a competitive intelligence report. That is you check that at present how many patents are there which are, what is a IP portfolio of these organizations and you try to understand the technology trend in that patients and that helps you to know, okay this is a technology trend probably now this organization is moving in this domain and you can predict that this next product of this organization will be X.

By knowing that technology trend only you can just guess, you can do the prediction and this business analytics and patent analytics they work together and that makes a wonder. You can make a prediction for next 10 years in that technology domain. It is a very systematic process to predict a technology which probably will come in that particular domain in next 10 years.

Although we say that currently that scenario is like a because of technologies like artificial intelligence or a block chain these are very prominent. Means everybody is talking about this artificial intelligence and block chain. I am not taking it as a, it is like a, sometimes it is like a buzzword. I am not taking it in that way. I just want to make you alert that we are talking about a technology trend analysis and definitely just like when internet came completely there was a disruption.

So, you should appreciate that thing that any technology, any disruptive technology comes complete picture changes. All offerings in the market change. Society, that particular societal life also changes. That much impact is there on, of that technology and you have experienced it with a very disruptive technologies like a LASER technology or this internet.

Similarly it is happening now with a artificial (techno) artificial intelligence and a block chain and many times probably you predict something but it may be so fast and particular output may come into the market very fast. So, but still what I am saying is that this patent analytics when we are talking about that is a very important means when you are observing that competition, that competitive intelligence is very important.

And, this patent analytics and business analytics help you to know technology trend and a market scenario of competitors. So, for example, sign up for news letters or check out popular networks and subscribe Google keeps a close watch on what Yahoo, Microsoft, EBay,

Amazon now this Hulu all these thing were doing. Means that much keep watch Google will keep and it is keeping obviously to know what exactly these organizations are doing.

Yahoo is now out of competition; absolutely we can say that thing but Microsoft, Amazon, Facebook, yes, Google is keeping watch. So, post among others are what are, also this is like what they are doing. So, known as a competitive legions Google tracks its competitors' technology development very closely to ensure they are not caught unawares for example when Google launched Google Docs.

It is a very long time. It was in a direct competition to Microsoft's Word. So, Google Docs and Microsoft's Word this gave user the advantage to directly work on the Word file online without have to download it to make any changes. This move by Google has impacted the need for users to have a licence copy of MS Word and their devices to work.

So, this is like a, you can see the competition between Google and Microsoft. So, if you keep watch on that particular thing you will be aware that yes this is the activity, which is done by my competitor and I have to keep watch on it. Now the fifth one that is a compete with yourself. And, that is the best if you see Google that is the best one that they are competing with themselves only.

So, to grow compete with yourself and develop new technologies or brands which will satisfy your customer. When Mister (Laly) Larry founded Google in 1998 they started with their core product search engine. Later they built their revolutionary email platform Gmail creating threat for Yahoo and have now ventured into cloud based applications that threatens Microsoft.

The creations by Google are result of out of the box thinking which resulted in a disruptive innovations. This intellectual inputs by inventors at Google is rightly protected by IP regimes and Google is able to commercialise these inventions appropriately and at the right time. So, you can just imagine Google, Microsoft and then how they are competing with each other and how they are giving the offerings and Google is now you just see ahead of time.

Customer do not want any changes but Google is giving you something every day simple example that Gmail also if you check or the various offerings which Google is giving it is very interesting and you enjoy and you like that offerings that proactive push by the technology you are enjoying.

So, you can say that Google is competing with itself only and giving a best offerings in their domain. So these five points that is single intellectual property right is good enough to launch your venture. Develop your IP portfolio and it happens if you start one patent filing in serious you are going to file a patents. 'Be aware of IPR of others', observe your competition and the last one that is a compete with yourself.

If you follow this particular five things as a start-up if you remember this five things probably it will be easier for you and your venture to compete in the market and establish into the market. Now one more important thing, this is about the Google but one more important thing I would like to share that you are observing a building here and a Google logo is there. It looks like a, like a this is a building own by Google.

I have this Google logo you are seeing there. So, here a disclaimer is like this, because I am just giving you the idea now that what happens with a IP like a trademark. Now this is Google when you see this Google, it is protected. It is a Google logo, it is trademark. I am just giving you the example and so that you can appreciate the infringement issues which happen or copy-paste or whatever you talk as a layman language that people are (cop) do copy-paste and claim themselves as they are associated with that organization.

And they are giving offerings as if that particular organization is giving the offering and there are lot many cases trademark infringement like Starbucks and Sardarbucks, this is a very good example. But, he copied that person in, person copied Starbucks' trademark and he started offerings and people get confused. Now probably you also might have get confused, oh! This looks like a Google building.

So, I just give you this is a disclaimer that this is not anywhere related to Google. What you are seeing is that we have just taken a Google Logo and we have just taken a colour combination of Google and we have put there and now you confuse as a customer, I am just saying that that if customers get confused with the trademark in that that way only. So, if somebody copies the trademark and uses it as a his own trademark that is called as a infringement.

And, here I am just giving you example to just tell you that we have just copied that colour combination as you can see that this building is of a Google. So, this is not, this is just to give you idea, I am just giving, anywhere we are not anywhere related to Google but we are, I should make a point that we are associated with a IIT Khargpur and Mister Sundar Pichai, he

was a student of IIT Khargpur and we are yes proud and honoured that we are associated as a education institute with Google in that particular way, that current CEO of Google is alumnus of this institute.

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Okay, considering that only I am just sharing with you one video of Mister Sundar Pichai so that you can just see, enjoy that video whenever he has visited IIT Kharagpur, this video it is a recorded. You would like to go through that. We are giving you the link and we are just showing you a one minute clip and you can just enjoy what Mister Pichai CEO of Google and alumnus of IIT Kharagpur what he is saying.

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Video:

Speaker – So, you know, you come across as this really humble, down to earth, nice guy. I am sure you were a good student at Kharagpur, but I am sure there was another side to you as well, right? There is to every IIT'ian, there is to every IIT'ian. Did you ever bunk classes at IIT, the morning classes of IIT?

Sundar Pichai – Of course, you know. I think it is the right of passage of going through college. You know, I had, I have to say I worked hard, but we did have a share of fun as well.

Speaker - Did you get ragged?

Sundar Pichai – You know it was pretty mellow. I definitely remember, you know, when I, when I started, hopefully it has gotten better by now, but be ahead a few things, I do not know whether you still have, at the time we used to have something called CG change. I do not know whether you guys still do, it stands for centre of gravity change, so as a freshman you lock your room and you go out and you come back, the room doors are not open but everything inside your room has been rearranged.

Speaker - Wow.

Sundar Pichai – And they do it by putting sticks in, all your clothes, they rearrange even the furniture. So it is quite a shock when you open your room door and you walk back in to see your entire room has been rearranged.

Speaker - That is crazy as a freshman.

Sundar Pichai – Yeah, it was a quite an experience. I do not think that was as bad as maybe couple weeks into being here. I had came from South. I came from Chennai. I had learnt Hindi in school but I never spoke it much. Just listening to how people were speaking. I just thought you address people this way. So, one day there was someone in this mess and I had to call him, I called him “Abe Sale!” In my first couple of week I thought you call people that way. Next thing I know the folk and the mess were quite upset and I think they temporarily closed down the mess. So, I was not very popular for that day.

Speaker - So, you were responsible for the mess shutting down at that time.

Sundar Pichai – Just for a moment.

Speaker - You met Anjali at IIT Kharagpur.

Sundar Pichai – Yes, Anjali is my wife. She was my classmate. She lived in... I hope you still have SNO. And that was the only girl hostel then. I hope there are few more now. It was not always easy to, if you have to go, get someone at the girls hostel, you have to walk in the front and request somewhere there to go call them and so they would go in and loudly say, “Anjali, Sundar is here for you.” It was not exactly a pleasant experience.

Speaker - Does it still work like that or you guys use technology?

Sundar Pichai - I guess it is moved on by now.

Professor - So, with this I guess you have enjoyed that video and with this we are coming to the end of this session and probably you would like the you can appreciate now the role of IP in the Google that how that giant is built with that one patent. Probably, this will be a very motivational story for you also for you venture and explore further IP whatever you are working in, whatever domain you working just explore IP for wealth creation and for your venture building. See you in the next session, thank you.

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