

INTELLECTUAL PROPERTY PORTFOLIO MANAGEMENT

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Week : 03

Lecture: 13

Welcome friends. So, in our last few sessions, We are discussing about how to go for international filing, how to keep your portfolio updated at a regular interval. We discussed that you need to be very careful that whether a patent is to be renewed or not to be renewed. So, in our last session if you remember we discussed that what is our renewable policy and we discussed that how centralization can help us

in making it most cost effective and also we discussed about renewing our portfolio in multiple locations, multiple countries. But all these things require money, funds and therefore, in this particular session we are going to discuss about how to make provisions for your portfolio management, how to keep resources for your patent portfolio and that is the topic of this particular session that budgeting for your intellectual property portfolio. Now, when we talk of budgeting there are many issues which we are going to discuss. We will discuss that what is the relation of budget and your intellectual property strategy.

We will understand not in detail but basic what is budget the purpose of budget and then we will see at two levels at the macro level where we are going to talk of the nations and then at the micro level when we will talk of the individual organizations. So, the discussion is at the macro and micro level also and obviously, when I will be discussing about macro level India will be the centre stage in our discussions. And for micro level we have taken the examples from different organizations including Apple, Qualcomm etcetera and one or two Indian examples are also there like CSIR etcetera. And with this we will understand that what are the best practices for budget planning for your intellectual property portfolio.

So, let us first understand that what is the requirement of budgeting for your intellectual property portfolio. So, budgeting for patent portfolio, it involves two three important

things. For example, it involves allocating not only financial resources, but it will also involve allocating various other resources which can include even manpower resources. that how many persons will be working in that IP R&D activities.

So, budgeting is a very broad term and generally we consider only one aspect of budgeting that is the funds related aspect. It includes planning and allocating funds for various activities related to acquiring, maintaining, protecting and exploiting patents. So, there are all types of activities which we do in IP management like if I want to acquire IP there are IP available with other competitors. For example, companies like IBM they acquire large number of technologies which are developed in educational institutions. So, you need funds for that also.

we discussed about renewing your patents on the annual basis. So, that is the maintaining you are doing your own IP your own R and D activities and for that purpose you have to file applications in different patent offices that is the protecting and then sometime you need to do something for technology transfer. Or commercial application of those IP that is the exploiting patents. So, all these things are part of your funds which will be part of your intellectual property portfolio management. Effective budget management and optimization in patent strategy.

Both these things are required. Effective budget management will only happen when you have optimized patent strategy. Otherwise as I discussed in my earlier sessions also that we can keep filing more and more patent without bothering whether this patent is actually useful or not. So optimization in patent strategy not all patents are always useful. Please remember this point.

that we have to be very selective with respect to our business objectives, with respect to the trend of the market, with respect to how technology is moving in the future. All these things are actually helping you in optimising your patent study. It involves balanced approach that aligns patent investment with business goals. I just said integrates patent and revenue data for a comprehensive financial overview and utilizes patent technology mapping from strategic decision making.

So, all these are important components of your patent strategy and effective budget management is only possible when you have a proper IP strategy which is going to take care all these aspects. Otherwise, why budget comes into the picture? Let us see that part first. What is a budget? Now, budget is a process of expressing quantified resource requirements and that resource requirement as I was saying in the beginning of this

session, it is the amount of capital that is how much money you need, amount of material, number of people.

These are the three important types of resources we are talking when we are time when we are making the budget. So, budget is you can say simply a function of capital material and people all these three things are part of your budget requirement into timely phased goals and milestones. So, you have some targets to achieve, this is the final goal.

But this final goal can be broken into milestone 1, milestone 2 and this is the final. Now to achieve milestone 1, how much money, how much material, how much manpower, is needed. Then from milestone 1 to milestone 2, how much money, material, manpower is needed, that is basically the process of budgeting. So, it gives you two very important advantages.

One, you are very efficient, optimized in using your resources. Why? Because every organization, however big it may be, It has limited resources. Whether you talk of US government, whether you talk of government of India or you talk a start-up, you all have limited resources and these limited resources have alternative uses.

So, you need to see that I am using my limited resources in the most optimal manner that is the best use and in that way my opportunity cost is also minimized. So, all these are the different aspect of limited resources and therefore, budgeting comes into the picture. If you have infinite resources for example, if there is a company or there is a organization which has infinite resources. purpose of budgeting will not be there. As many resource you need, you will get that many resources, but we have limited resources and therefore, the concept of budgeting comes into the picture.

Now, let us see once we understood that what is the process of budgeting, what is the purpose of budgeting? Now, purpose of budgeting is to help the planning of actual operations by forcing managers to consider how the conditions might change and what steps should be taken now and by encouraging managers to consider problems before they arise you will have a very good scenario analysis when you are doing the budgeting okay these are the possible things which will happen or which may happen and how we are going to take decisions how we are going to handle those situations and you are giving special requirements to your managers to consider all those conditions that how these situations may change over a period of time and then what type of decisions you need to take before actually the problem comes in front of you. So, in fact, I will also say that budgeting is a kind of very proactive planning process.

With budgeting, you are When we are doing budgeting for intellectual property portfolio, for institutions like IITs, it may help us that okay, in this year, we should target to file these many number of patents. We should target these many commercialization of our patents. So, when I do budgeting in the month of March for my next financial year, So, budgeting will help me okay what can be the target and this way I am forcing the intellectual property department of my institute that you have to achieve this much number of new patents these many patents you are going to maintain this particular year.

So, you have a clear cut data that okay I am going to pay annuity for 500 patents in this year and these 500 patents out of them how many are in 4 to 6 years bracket and how many of them are between 16 to 20 years bracket. So, all these classification etcetera all these situations will be clear to me on day one. So, that is the biggest I think purpose of budgeting. Resource allocation is obviously important, but not only resource allocation you also set milestones with respect to

a process of budgeting. Then since you are allocating the resources for the various activities. So, controlling of resources happens in the process of budgeting. You communicate plans to various responsibility center managers that how you are going to achieve your targets, who will be responsible for different types of targets to motivate managers to strive to achieve budgetary goals. Budgetary goals can be both types.

When I say budgetary goals, one you have to achieve milestone, achieve your milestones. That is one type of budgetary goals. And second is achieve milestone within resource. So, these are the two important things it is not only achieving the milestone, but you have to achieve the milestone and second is achieve the milestone within the given resources. Whatever resources are allocated to you for that particular MS you need to achieve your MS within that.

Then to evaluate the performance of managers whether managers are achieving the milestones They are achieving the milestone within the budget or not. So, this gives you a criteria to evaluate the performance of your team members. Then to provide visibility into companies performance. When you have a chart that who is achieving milestones, who is not achieving the milestone and then overall companies milestones, overall companies budgetary performance.

So, that gives you a very good idea. about the overall performance of the company. And maybe if it is a transparent system it will help every employee of the organization to understand the performance of the company. And then for accountability also out of 10

managers 7 are able to achieve their objectives 3 are not able to achieve the objectives. So, with this system of visibility

you can hold those three responsible accountable that you are the reason for lower performance of my organization. And then you see whether milestones were not realistic, whether enough resources were not provided to them or there may be some third reason also. So, two reasons can be we may have unrealistic milestones. Or we may have limited availability of resources which were not sufficient to achieve those milestones. Or maybe third thing is the manager did not do their work properly.

So, all those things are also possible with the appropriate process of budgeting. After understanding this theoretical aspect of budgeting, now let us see budgeting in context of intellectual property portfolio. As I said, we will be discussing this at two levels. One at the macro level and another at the micro level. Now, at the macro level, I present some of the data of government of India.

And here, if you see on the screen, we have a graph which is showing the R&D expenditure because intellectual property portfolio budget is subset of R&D expenses of your organization. So, how R and D expenses are moving accordingly you can understand it is a kind of a proxy the R and D expenditure of the organization is proxy to intellectual property budget. And here I give you the data that how in India continuously except this 2021 the budget is increasing for R and D activities. So, this is at the national level that continuously you can see there is a rise in R and D expenditure in our country.

However, there is an issue with respect to when you see the size of our economy, the R and D expenditure as a percentage of GDP which is shown with the help of this worm and here you see this worm This is continuously decreasing. Since 2008-09, this was the time when we had R&D expenditures which were more than 0.8% of our GDP. It is somewhere around more than 0.8% of GDP. But right now, we are hovering around 0.64, 0.66 percentage of the GDP that is the, so though since our overall GDP is increasing, so the absolute number of our R&D expenses is increasing.

So, if you see that gross expenditure on R&D which we call as GERD in our country is consistently increasing over the years and it has become doubled consistently from 60,196.75 crores in 10-11 that is this point which is it is around let us say 60,000 crores to 1,27,380 in 2021. So, here it is around 127 K. So, you can say that from 60 to 127 K crores. that is also required otherwise this is half and that is I am talking in terms of rupees not in US dollars. So, the number has increased from 60000 to 127000.

So, absolute numbers are increasing, but since India is a developing nation and we have many other priorities as is said to us, but we also need to see that if we want to succeed in knowledge economy, we need to increase the R and D expenditures in our country. This doubling the number from 60,000 crores to 127,000 crores is not sufficient. We also need to see that what is the percentage of our GDP we are spending on R&D activities and as we are looking to become a 5 trillion economy and then by 2047 we want to become a 30 trillion economy US dollars in terms we really need to increase our R&D capabilities by improving our GERD.

Then another very interesting indicator you see in this particular slide, here again from the macro point of view, the budget which we are spending in R&D activities, this is from 2020-21 data, the central government is putting the maximum. around 43.7 percent contribution in our overall R and D activity is coming from the government sector. While the private sector is contributing 36.4 percent. We really need to increase the private sector contribution because the private sector understands it is not the duty of government to do business. It is the duty of private sector to do business.

They need to increase their competitiveness. And if their contribution in R&D is low, it means their IP portfolios are also weak. And therefore, globally competitiveness of IP sector from India is also low. So, unless until private sector increases their contribution, we will see that it has to be minimum 50 percent. That is where minimum we should increase.

So, there is a requirement of more R&D budgets. And if more R&D budgets come from the private sector, it will improve their IP portfolio also. Then we have state and public sector industry and higher education institute. It is surprising, it is surprising that HEIs are spending around 8.8 percent in R and D activities while public sector is spending just 4.4 percent.

you can understand that government which is largely spending through CSIR then various other departments of government where those departments have different types of labs they are major contributor to R and D landscape of our country. While if you see this data you will understand that how the government sector and business enterprises are spending their money. Now, over last many years from 1991, the time when liberalization started in our country to the 2020-21, this data is available from DST website of Government of India. Public sector R&D units spent 0.30 percent of their sales turnover on R&D as compared to 1.46 percent by the private sector in

So, the public sector spending is so low, while the private sector they are spending a lot on their R and D activities, but even then the cumulative contribution it is on individual organizations but the cumulative contribution is around what we just saw is 36, 37 percent which need to be increased to somewhere around 50 percent and certainly even if it is not 50 percent it has to be more than what the government is spending on R and D activities. Because you see that government is spending more but public sector which is the main arm of government. involved in the business activities, commercial activities, they are spending just 0.3 percent, 0.3 percent of their trend and you can understand that it has to be significantly improved. You see in this data, in this particular graph that out of 91 to 2021-22, our

between the government sector and business enterprises sector in our country government sector is spending 60 percent and private sector is spending 40 percent. So, this is the government and this is the business sector and it may not be very appropriate to say. But it is easily understandable that when business sector is spending some money on R and D activities they will take immediate benefit of that because they will do everything because of the commercial interest. While many a time government sector may not have immediate commercial interest and even They are spending more money on the R&D activities, but the outcome in terms of commercial successes may not be so high in the case of government.

And you see that continuously since last you can say 2011-12, the public sector means the business sector is moving between 40 to 45 percent. It has to go more than 50 percent as we understand now. Here you see a very interesting graph again at the macro level coming from different countries where the different type of economies, they are generally spending more than 50% from the business sector. And in some of the countries like China, Japan, South Korea, USA, it is 70%. And we just discussed that we are spending around 36, 37 percent.

So, there is a it is India and here you see that in India government sector is spending 50 percent and business enterprises are spending 41 percent and higher education institutions are spending 9 percent and others are almost negligible in our case. While if you see All the other countries except this South Africa and Mexico, these are the two nations which are exception in this list. But I think nobody will like to compare India's position with these two countries at the moment. You have countries like South Korea and Japan.

Private sector is contributing as high as 79%. China, private sector is contributing 77%. So, the point which you can easily understand from this slide that Indian organizations are still not very forward looking. There need to be a requirement of making more budgetary provisions for R and D activities and then only the portfolio of IP from Indian organizations will improve. We have a case of Apple which is having around

ninety five thousand plus patents and we all know Apple is one of the most renowned fortune five hundred companies and many people say that it is among the top five in that list. Now, continuously Apple is already a very successful organization, but even then year on year they are increasing their budget of R and D activities. it is annual R and D expenses for 2021 increase of around 17 percent. Then in 2022 increase of around 20 percent from the previous budget. In 2023 again increase of around 14 percent.

So, year on year increase on patent budget is the reason why Apple is Apple or it is so successful. Then you see Qualcomm another very important and reputed organization. They are consistently investing more than 5 percent of their R and D in patents and they are creating records by the way of doing the patents. More than 10 patents per day is the average of company like Qualcomm.

They are having around 2,63,000 patents globally across the 73,000 plus unique patent families and this large portfolio of IP is only possible when they are giving substantial efforts in their budgetary provisions for R&D and within R&D for keeping the patents. Another example is why? It also has a huge portfolio of patents around 1,20,000 plus patents are available in the IP portfolio of a company like Huawei. And they are also investing huge amount of their let us say total budget in the R&D activities that

is somewhere around 560 million dollars in patent licensing revenue for 2022 disclosing for the first time its annual income from the part of this business. Because they have so much of huge IP portfolio, so it is not only a cost center to company, but it is also additional sources of revenue because of royalty, because of technology transfer, because of licensing and all those things which they may be doing to various other organizations, it has become a source of revenue also to Hawaii. CSIR is the name which we all feel very pride. And CSIR also has a huge portfolio of around 1000 plus unique patents. And CSIR is the major reason for

government spending is higher in India than the private sector because it is a government of India institution. It has multiple labs and therefore they are the flag bearer of IP portfolio in our country. But we expect that Indian organizations should go ahead of

CSIR because CSIR being a R&D activity, it is creating patents and then they go for technology transfer. Why our organizations are not keeping an eye for developing their own technologies and using them for their own competitiveness?

So, we have understood that what is at the macro level, what is at the micro level and as we already discussed we have understood the importance of cost forecasting that how we are going to maintain develop or exploit IP over a period of time and accordingly cost forecasting comes into the picture that we will require this much of resources in first half or first quarter, this much resources in the second quarter and third quarter and so on. So, that is the cost forecasting. Unnecessary spending is highly undesirable.

Try to minimize the unnecessary spending and better forecasting will help you in avoiding the unnecessary spending. Enhancing efficiency and accuracy with automation. So, we will be talking in one of the session about monitoring of your portfolio. So, this point we will discuss there also that since you are going to have so many patents in your portfolio, when you have 95000 plus patents, when you have 268000 plus patents, when you have 120000 patents, you have to have lot of efficiency requirement for using your budget efficiently and that is possible through some kind of automated systems. then you can use lot of data driven decisions budgetary decisions.

These days lot of analytical tools are also coming up which will help you taking decisions in more objective manners. So, in this way we understood that what are the different you can say points you need to keep in mind for managing your patents and because of the budgetary control You also need to be very careful for managing your global patent cost. Sometime you are too focused on a particular market and here you are managing your cost very well. but you are not able to focus on other markets.

So, we have many examples where organizations could not focus properly on the global patent cost and that becomes a point of let us say very important question that takes away all your profits in maintaining the global patents. And in that case, you have to continuously see that what is the cost of patent and because in some of the markets, cost are highly dynamic, particularly if I want to say US markets, US patent office, their cost etc. are highly dynamic. So, you need to regularly keep an eye on their cost structure and accordingly see whether it is fulfilling your requirements. Go for

More and more e-filing, most of the patent offices are expecting you to go for electronic filing so that they are also giving some kind of encouragement by giving you incentives for e-filing so that their paperwork can be reduced and it is your commitment for

sustainability also. So, all these things are the part that how you can manage your cost effectively, use of services of WIPO for PCT etcetera, you can use the various add-on facilities which are available through WIPO, those are all good ways to manage your global patent cost. So, finally, with this we come to this conclusion that budgeting is very important. for your effective IP management. It will not only help you to plan proper allocation of your resources, but it will also help you in achieving the milestones and achieving those milestones within the available resources.

So, budgeting is discussed at macro level also that what should be the policy of government so that they can increase the private sector contribution in the budget in R&D activities and at the same time we discussed at the organization level which you can say at the micro level that what can be the way for budgeting of your overall patent portfolio. So, with this we come to end of this particular video. Thank you very much.