Innovation, Business Models and Enterpreneurship

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Lecture – 15
Prototyping to Incubation

Welcome friends in our last session we discussed about the role of experimentation in the process of innovation management, we discussed that experimentation is all about learning and we validate different types of assumptions in the experimentation. So, three-four important takeaways from the process of experimentation, one is experiments do not success do not fail, the important outcome of experimentation is the learning process.

The second thing is we need to design experiments of low cost, it is better to fail early and fail with low cost. The third important thing is we need to think innovative assumptions more you know about your customer, more you know about technology, more you know about the revenue streams you are able to design a good experiment for your assumptions.

So, these are three-four important aspects we need to keep in mind while designing experiments or while moving to the next stage of idea development. After your experimentation the next stage is incubation and in this incubation stage we are now moving to the almost real kind of environment, but incubation is a kind of you can say simulated real world environment, it is a kind of protected real world environment you are in a very nascent stage and therefore you require lot of protections and this incubation provides you those protections.

So, now let us see what are the important things related to incubation and what we do actually in the stage of incubation. One of the very famous personality of India Kishore Biyani the owner the founder of future group.

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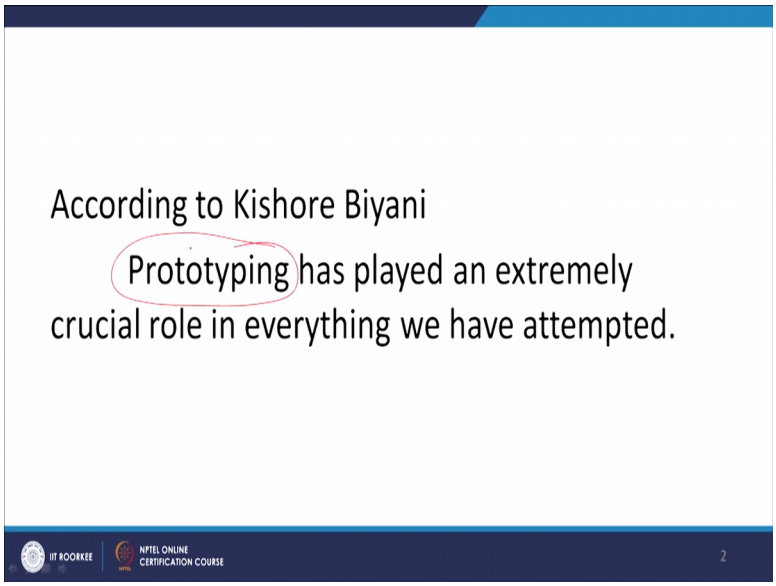

He mentions that prototyping has played an extremely crucial role in everything we have attempted. So, in his view the prototyping is a very important thing, prototyping means developing a prototype based on your idea, based on the outcome of your experiments.

So, if you are able to develop a prototype and take various lessons from that prototype then it will be much easier for you to work in the real world environment and Kishore Biyani who is considered to be one of the successful entrepreneur of this work this country, he also acknowledges similarly that prototyping is a very very important a step for all the businesses which they have attempted.

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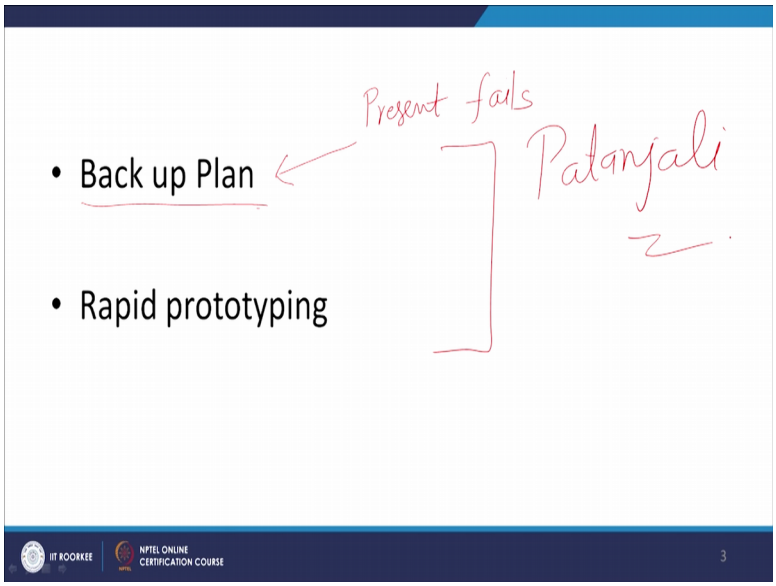

Now, why talking of prototyping he mentions two important thing about the success of his companies future group in all particularly, one thing is about the backup plan. Now, this back up plan is related to the discussion of our experimentation, where in the backup plan if your present experiment fails you have failures in your present experiments. So, present fails so you must evoke your back up plan and a start working with your back up plan.

So, always you should have in the process of innovation you should have some kind of backup plan, if A is not going to succeed do you have any B available with you or not if B is not available then it is a disaster.

So, to avoid those disasters always with A you need to have B always with B you need to have a C, always we C you need to have a D. So, that if something fails you have a backup plan, like this back up plan is a very popular terminology in the military science. If one plant is not able to give you the desired objective, you have a backup plan always ready.

Like just to give you a very simple example of what do we mean by backup plan, normally in all the organizations all the factories particularly we draw power from the grid. But sometime when power is not available from grid we have our own gensets, where we develop power for our production activities, so that we call that genset as a

backup plan. In case power is not available from grid you have this back up plan always ready.

So, in all the situations in all innovation situations important thing is you are backup plan, if your backup plans are ready then you can do very fast experimentation. If your backup plans are not ready then you need to go again from complete cycle of idea development. So, backup plan actually helps you in improving the a speed of your experimentation, one experiment fails your back up plan is ready you do another experiment, then you do another experiment because you have a backup plan of this experiment this plan also.

But if this backup plan is not ready, so again you need to go to this idea management system filter the available ideas and then come to the stage of experimentation. So, to same time to same effort to save your cost it is advisable that you always keep ready some kind of backup plans, something fails and it is quite possible that whatever you are thinking may not be able to actually deliver at the experimentation stage. So, therefore backup plans are very very important.

Then the second thing is rapid prototyping whatever is your idea you should be able to develop experiments on the basis of those ideas as early as possible. Now, this will facilitate the development of ideas on a very regular basis, this will facilitate the implementation of ideas on a very regular basis and this will also help you to counter the issues like is squeezing product life cycles.

Because of rapid prototyping you are bringing your ideas to the commercial label on a very fast basis and therefore you will be continuously having new products flooding the market from your organization and therefore we see because of these back up plan and rapid prototyping companies like future group has made tremendous progress on a very limited time.

The other example for this particular issue of backup plan and rapid prototyping, that is a worth mentioning organization right now and that is Patanjali. This Patanjali is also a very you can say most suitable example, where you see both these things are aptly available in there working the backup plan and rapid prototyping.

Now to understand the backup plan in case of Patanjali we need to see slightly in a very holistic manner, some time when political situations regulatory situations are not in favor of the organization. They have a backup plan of doing something which is more suitable to the masses going for the education, going for the yoga classes, going for the medical facility development going for more research and development and when the environment is suitable for them at that time they become more in aggressive into the activities like black money, they become more active about Indianization of so, many things in country.

So, that is about their back up plan and rapid prototyping they keep a starting 1 after another new businesses. So, on a very fast basis within last two decades Patanjali has grown as a case it itself. I think this organization has grown so fast that it is unparalleled to many of the established MNCs and big organizations.

A starting from a yoga organization it has moved to Ayurvedic medicines, then it has moved to large number of FMCGC now it has moved to education, it has moved to security services, it has moved to naturopathic treatments also.

So, large number of products they are continuously a starting and with very unique business models, with very unique business models which are challenging the existing business models in line of FMCG in line of pharmaceutical businesses in line of many other traditional businesses.

So, their businesses are traditional but their business models are innovative, that is the reason I am discussing the example of Patanjali in this session that how they have moved very fast using this rapid prototyping. So, their rapid prototyping is not in the production their rapid prototyping is more at the business modern label.

So, they have evolved the business model that how yoga classes the yoga camps were the core value they were offering initially and around that yoga model yoga camps. They have linked the ayurvedic medicines they have linked the swadeshi movement they have linked the FMCG products they have linked the issues of black money.

So, all these issues have linked around the central value of the yoga camps. So, that is how and they have taken not more than 15 years to do all these things around their

central activity of yoga camps. So, rapid prototyping and backup plan these are two very very important things for the a speeding of your experimentation activities.

After that the other important thing when we are moving from experimentation a stage 2 incubation a stage, that is the appropriate measurement system. Without appropriate measurement system it is again very difficult to move from experimentation to incubation, now what do I mean by this appropriate measurement system.

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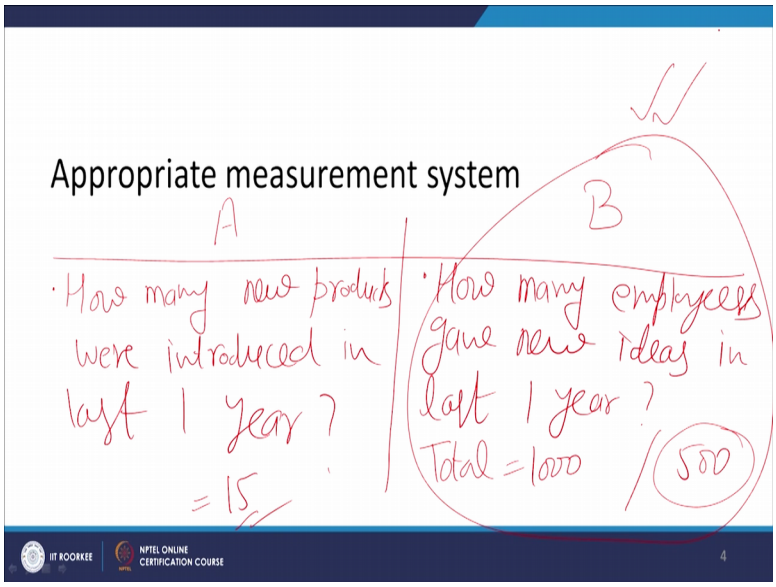

So, now when we have the one kind of measurement system, let me have two different types of organizations organization A and organization B and when I am comparing organization A and B; in organization A the measurement system is that how many new products were introduced in last 1 year and an organization B the measurement system is how many employees gave new ideas in last 1 year.

So, now in organization one A we are just seeing the output, that actually how many new products the organization has introduced in last 1 year. So, maybe in last 1 year this organization introduced let us say 15 new products and where how many employees gave new ideas in last 1 year. So, in this company B there are total let us say 1000 employees are there and out of 1000 employees only 500 employees gave new ideas.

So, for organization this is a metal of concern that why other 500 employees did not give any new idea in this year. So, if 1000 employees are there so all 1000 employees must

give at least one new idea in a year. So, this is a different type of measurement system and this is a different type of measurement system the measurement system in case of A is only focusing on the final output.

While the measurement system in case of organization B is focusing on process also. So, as a class of innovation program has to install the a structure innovation in my organization, I will like to focus more on the process. So, I will to have this type of measurement system in my organization, where I see that my processes are robust my processes are robust, my each employee is contributing in giving new ideas that is what I want to see.

While in the case of organization A it is only focusing on the final output. So, here it is important for us that we need to have appropriate measurement system, which helps in improving my idea management system, which helps in delivering low cost experiments, which help me in making those experiments suitable to the incubation a stage.

So, all these a stages are very very important in case of this type of measurement system. So, appropriately you can make some kind of modifications in the measurement system, but this measurement system is very important for the organization.

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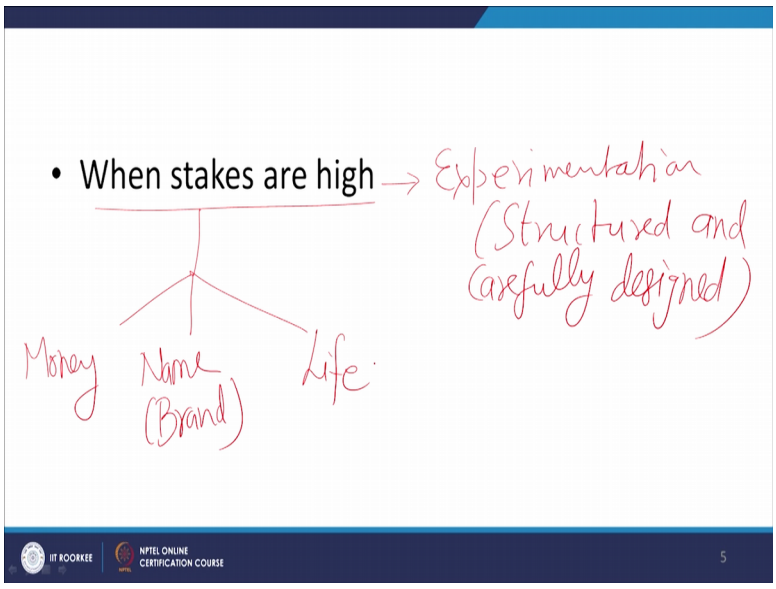

Now, another thing is that in case of some time when we are designing the experiments, your stakes are high or stakes are low. Now what do we mean by high a stake or low a

stake. When the cost of failure when the cost of failure and now the cost which I am saying this is not in terms of only monetary cost, this cost may be in any kind of measurement yardstick; like if I am doing some experiment with railway or if I am doing some experiment with some aircraft.

Now, the cost of failure is always not the cost money, but it can be in terms of life's also if my experiment fails; So, maybe an aircraft which is having let us say 300 passengers and if all 300 passengers died. So, no monetary compensation can equal with the lives of those 300 passengers. If in a train accident some 150 passengers lose their lives that is not equivalent to any amount of monetary cost.

So, when I am saying the cost it includes monetary cost also it includes; obviously, the profit and loss in terms of money, but at the same time it also includes losses related to non monetary aspects. So, when you are a stakes are high probably experimentation is the only way experimentation rather is structured and carefully designed experimentation is the only way to go to the incubation a stage.

If you are having some situation where your a stake may be and a stake as I mentioning, it can have different types of stakes it can be related to money, it can be related to name and fame, it can be related to name frame means brand also, it can be related to life also.

So, all these are the different types of stakes which are possible and when obviously when the stakes are related to life when a stakes are related to huge money, when a stakes are related the delusion of your brand value the use stakes are high and like for an example.

You are in the finals of a cricket world cup India has qualified to the finals of word cricket cup and in the finals you want to do some experiment you want to change the batting order. Now, this change of batting order in the final match is certainly very high a stakes because, if experiment does not succeed you will lose the and all will all people will curse on you.

So, therefore you need to see whether changing the changing the batting order is going to help you or not, you need to do this as a part of experimentation before actually implementing at the finals of the world cup.

So, when you are having league matches and in that league matches you are doing something then it is because a stacks are not very high, but when you are trying to have some kind of change in batting order in the final match you need to have experimentation before that and that is the only way to get some kind of confidence; yes changing the batting order may help us in the final match.

So, experimentation carefully design a structured experimentation is the only way to succeed if a stakes are high, we I am particularly highlighting this issue because you will find some literature where it is mentioned that if a stakes are high you should not experiment. So, just to counter that argument I am particularly highlighting that experimentation is the only way if a stakes are high.

Now, when we are developing incubation for our experimentation, so what are the important things there are two very important thing, one is incubation a structure and second is effective review.

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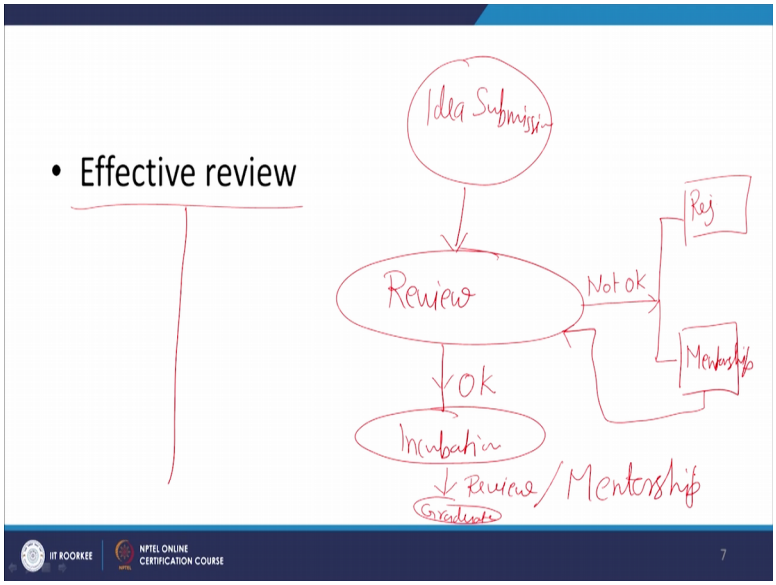

So, these are two very important thing about incubation and developing the experiments to the incubation a stage.

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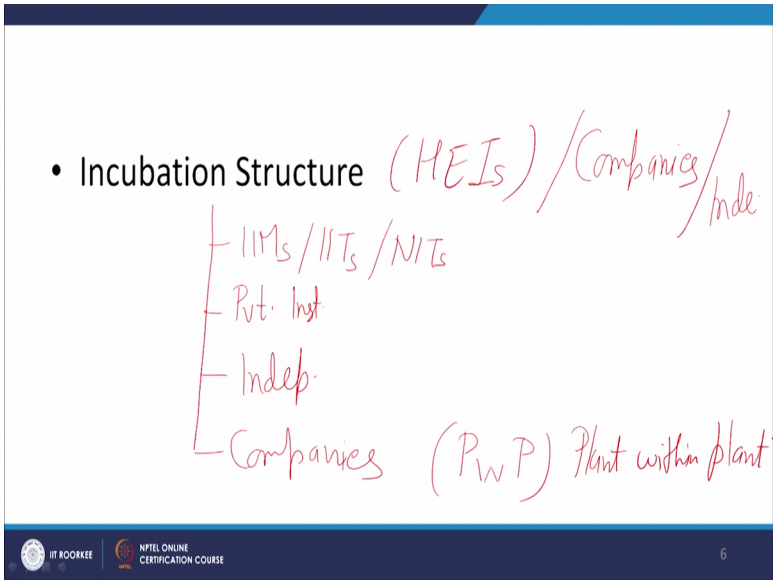

Now, what is the incubation a structure now in this session we are focusing the incubation a structure related to HEIs higher educational institutes, though you can have incubation a structure within organizations also within companies also. So, other issue is related to companies then you can have incubation a structure which is totally independent.

So, there are different types of incubation systems which are possible you can have totally independent incubators you can have incubator within your company and you can have incubators within some educational institutes. The most popular incubators are within educational institutes.

In India if I say like IIMs IITs NITs some of the IIMs some of the IITs some of the NITs are having some excellent incubators and these incubators are normally these are policy dependent issue. But normally these incubators encourage students of their own colleges and they also encourage faculty members alguna of their respective colleges and some of the incubators also encourage general public to a start their incubating companies in their incubators.

Then you have some of the private institutions, some of the private institutions also have some good incubators in our country and again the same logic applies these incubators are open to their a student's they are aluminized their faculty members and some of the incubators are open to general public also.

Then we have independent incubators, these independent incubators are those incubators where you have some kind of private people and they have established some incubator and on the basis of their review process. Anybody can a start incubation activities in these independent incubators and as I mentioned companies also have incubators to facilitate the process of innovation for their employees.

So, within organization you have a small section, where your employees can experiment where your employees can actually play with their ideas and if we go to the concept of manufacturing a strategy given by skinner in that a skinner mentions about PWP, PWP stands for plant within plant.

So, in this plant within plant the meaning is that you have a kind of a smaller entity within a bigger plant. So, this a smaller entity is actually that incubator where your employees. So, normally these companies related incubation a structure are only entertaining their own employees, normally these incubators are not open for general public these are only for the employees of the organization. So, these are the different types of incubation a structures which are possible.

Now, the second important thing in this incubation activity is the effective review off various ideas, now because once you review those ideas then only you will take them for the incubation purpose. So, the submission of idea and after submission of idea what we do you review the idea and if in the review process it is ok.

Then it goes to incubation and if it is not then it is in two parts, one is rejected or it go for the mentorship. Where mentors are assigned for the process of improving the idea and then when mentor and again mentor says that now the idea has improved then again it goes for the review process and if it is fine suitable then the incubation activities a start.

So, now we see that from experimentation we are moving to incubation, we are actually we are practically producing the products we are trying to simulate the real world scenario and we are moving very close to launch our product on the commercial basis. So, that is the process of incubation we are a structured of incubation and the review process are two important keys and when you are in to the incubation activities, then also when you are in to the incubation activities then also regular review takes place and then finally when you graduate this is continuously in the review process you also get mentorship.

So, your effective review means effective mentorship also once incubation activities have a started. So, that when you graduate from the incubator you become a complete entity on your own, you can is not only a stand on your legs, but you should be able to run on your legs that is the desired outcome of an incubator and that is what we do in this effective review process.

We not only mentor your idea we also mentor we also give you guidance about the process of developing business models what type of changes you need to do and that is all about incubation. So, with this we are closing this session.

Thank you very much.