**Management of New Products and Services (MNPS)**
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**Lecture - 17**
**NPNSM - Managing New Products in Large Organizations**

Hello, I am Jayanta Chatterjee from IIT Kanpur and we are discussing management of new products and services. Our topic for today will be managing new products in large organizations, which means over this session and the next couple of sessions. I will be discussing with you that; how as product manager, how has a champion of a new product you should manage and strategize inside the large organizations.

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And how your strategies will be different if you are actually championing; a new product in as part of a startup or in a small organization.

So, understanding in the larger context therefore, of the organization you should be able to manage the new product in a in a better way. So, all large organizations today are very interested in new products. So, product managers, new product managers are very much in demand today in large organizations because today all organizations are going through turbulent times.

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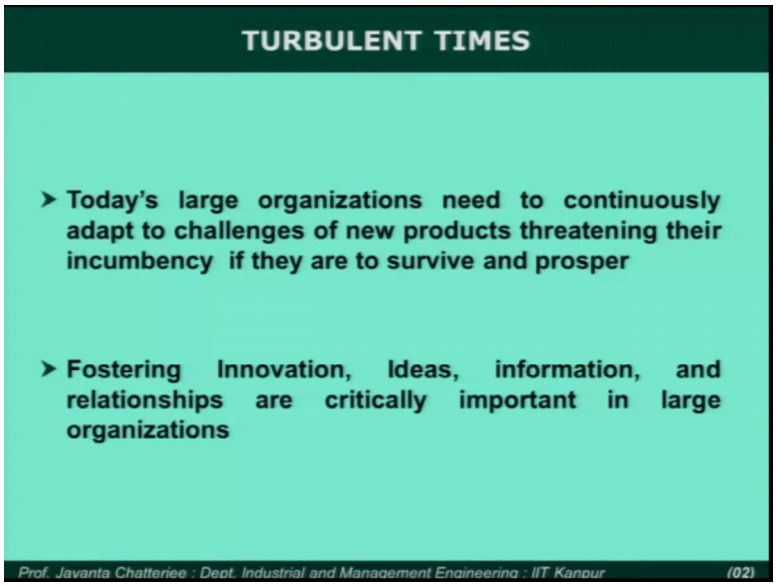


And they all need new products it has become almost lifeblood of most organizations because only through a new products and services they can ensure growth. And they remember that sometimes these new products can be a radically new product or sometimes they can be new to the organization, but not new to the world or it can be a new product that is adding to an existing. So, it is an enhancement or augmentation ah; that means, an incremental innovation rather than a radical innovation. These various types of innovations and when which innovation is more appropriate at what stage of the technology lifecycle and the product lifecycle we have discussed in an earlier session.

So, fostering innovation ideas information and relationships; I have introduced just now some new id new points that information and relationships, these relationships read relate to the way you operate within an organization. Your relationships with your other colleague's as well as relationships sometimes with external network partners will be important elements of success.

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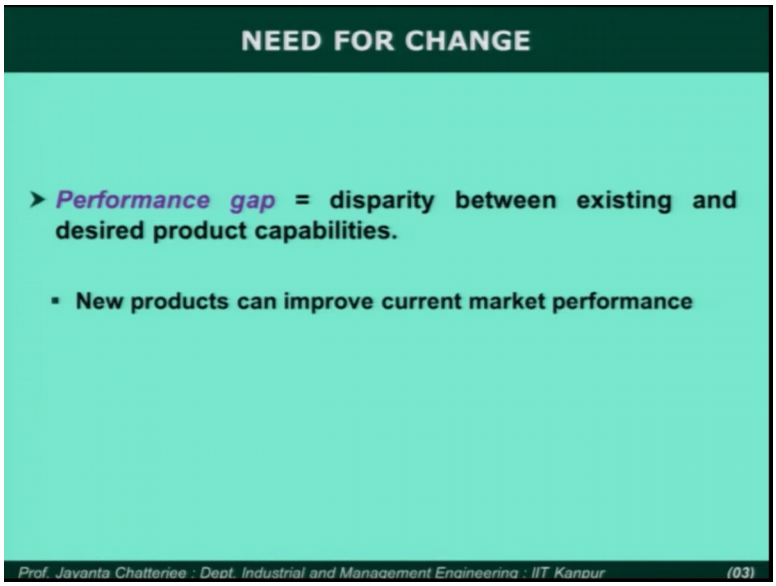


So, normally it is the performance gap that is the disparity between existing and desired product capabilities that will drive the need for a new product so many times therefore, in large organizations. The initial drive is for actually an incremental product so, that the market performance can improve.

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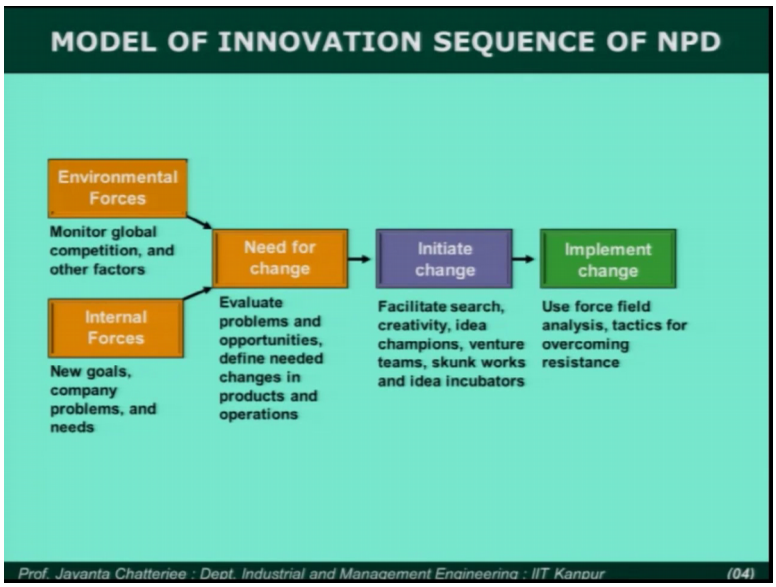


So, if we actually put it together as a model for the model of innovation sequence for new product design and development; you can actually look at this. So, on one side we have environmental forces; that means, the global competition regulatory changes. So,

sometimes your pollution level has to be brought down or your, you know the lifecycle assessment wise your product may have to be modified because the there are new standards which insist on recycle ability or reusability or safe disposal and so on.

So, just for that that example for example, many perfumes no longer can use some chemicals which were earlier part of the fluoride-based things that were actually on which the perfume molecules were spread. So now, actually therefore, you need to bring in or sometimes people are now insisting on nonalcoholic perfumes and deodorants and so on.

So, these are regulatory changes or changes in health awareness, the changes in consumers' preferences that actually often drive; this environmental forces drive need of new products. And sometimes it can be driven or very often it can be driven by internal forces; that means, new goals, need of new growth, new need of more cash, need of better cash flow to balance the lumpy cash flows of large products.

So, sometimes big machine manufacturers because their cash flows come in lumps as and when they deliver the machine; in the meantime, they incur all the costs of components which are getting a symbol for the final dispatch. So, they need some other products to balance; so that, they have regular everyday sale. So, for example, large electrical machine manufacturers often introduce in their product range elements that go into the domestic market the switches and circuit breakers etcetera, which are part of the everyday usage. So, that there is a better cash flow in standard product sale while the organization also makes large killings in project oriented very large equipment sales.

So, this balancing is an internal force kind of an internal force. So, both the external environmental forces internal forces drive the need for change and that actually creates this the subsequent cycles of change cycle.

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In succeeding, within a large organization with a new product you have to understand some new terminologies that I am going to explain, what is an idea champion? And idea champion is a person who sees the need for a new product and champions the change that is necessary to make that new product successful within the organization.

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The 4 roles in organizational changes that you have here, inventor these are people who may be in your R and D department or people who are in the design department people who develop, they do not actually understand all the different technical aspects that are

necessary to be built in, all the associated stuff that need to be connected. So, that the product actually crosses the chasm that we discussed in an earlier session.

So, they are actually more pure scientists and so on. The next role is very, very important this role. This is the role of the champion this person normally will be quite adept he believes in the idea developed by an inventor. So, normally the champion bridges between the scientist and the engineer and the management higher level management because the champion can actually visualize the benefit. Usually these people are you know kind of they can see the bigger picture and they can then confront the organization with realities of cost benefit. And they can actually manage all the politics that is there inside the organization.

So, that the inventor or the developer can get the necessary financial support to take their idea forward and then of course, you need the high-level management sponsor who will support the champion. And so, that the inventor can actually get all the resources and the product can see it is the light of the day. And then there is a positive role of a constructive critic because that person will bring the reality test that person. So, usually you should embrace the constructive critics rather than trying to oppose them or being defensive against them.

So, because these people can bring the necessary features that take the product from the early enthusiasts or the lead users or the innovators to the early majority; to win the early majority in the product lifecycle after launch, you should listen to your internal critic's the constructive criticism very well.

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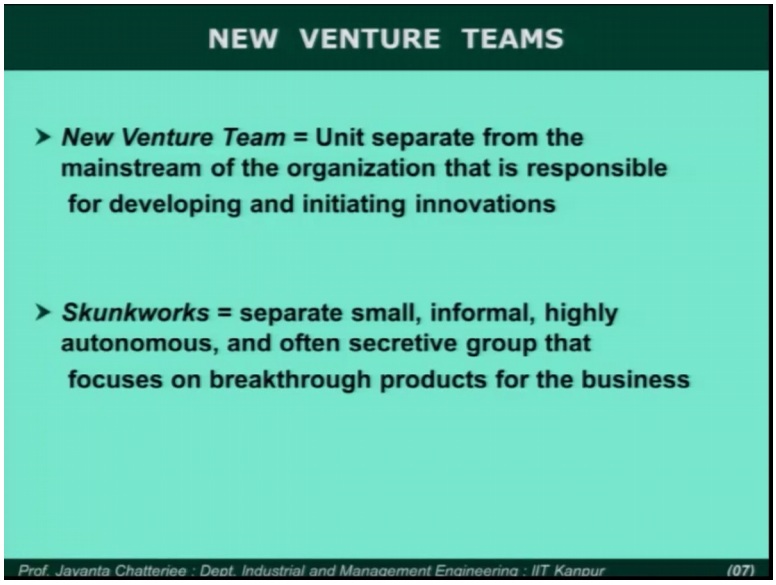


The new venture team is often actually in large organization these people are one off as a separate entity. So, that they are not burdened by the different rules regulations and the different heritage you know all the bureaucracy. And so, they are usually given a separate unit so, that they can be freer.

Sometimes you have to have the Skunkworks, these are separate, small, informal highly autonomous and often secretive groups; that focuses on a breakthrough product for the business. And they are called Skunkworks because like it is said; that when IBM which was the manufacturer of these large computers and at that time initially they ignored people like Apple and others who were coming up with this hobby computer and which was quickly turning into something called the personal computer.

And initially though publicly top management in IBM and other places said, you know why will a person need a computer a computer is only needed by a large institution like an insurance company or a steel plant or an automotive plant, why will anybody needed computer at home, but they knew that this is a strong trend and they were clever enough.

So, IBM set up a unit which was completely away from their east coast facilities in the us and it was an in a different location and they in fact, the people who worked there to develop the IBMs winning range of personal computers. In fact, the pcs as we know them many innovations in the product happened because of that IBM foray into that market, but initially the people who did all that new product development and created

that successful architecture, you know I and I will the pc is an ideal example of product platform and product architecture. I think I briefly discussed that in an earlier session.

Now, the success of the IBM pc 4 A, happened because many of those guys did not even know that they are working for IBM. And the main IBM facility did not know that their company was actually investing into this; that is why, it was almost like a secret. Later on, when it was successful then it was called IBM and everything came together etcetera. So, that is why we use this word skunk works because it is a small informal highly autonomous and often secretive group.

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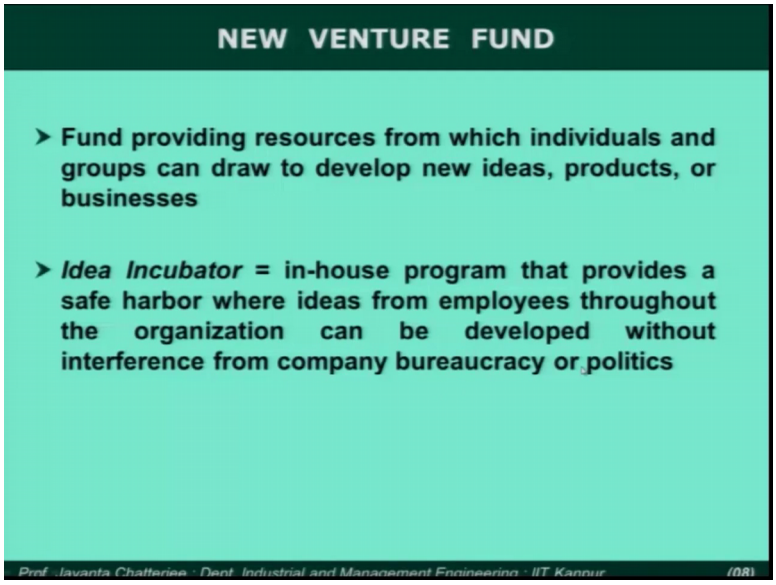


The new venture fund, this is actually you often hear this venture capitalists angel investors and these words. These are people who make this rapid proliferation of exciting new product introductions possible, because they believe in these disruptive technologies and they put their money where their mouth is and these investments make it possible.

But the idea in eco better is a very interesting concept for a large organization. Many large organizations today create this venture fund within the organization and manage good ideas promoted inside the organization by champion inventors. And support them with a fund and incubate them; that means, shield they nurture them well. So, that they are protected from all the politics and bureaucracy of the organization. So, that is why they are called idea incubators.

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And even then, often actually organizations find this open innovation is a very powerful concept that has become very popular around the world over the last 10 years. In this open innovation organizations openly go and talk to academic institutions or other smaller companies. And if there is a good idea there they will provide some funding and some backup and they will often purchase the initial developments made in an academic lab or in a small company. And integrate that with the new product development effort in the large organization.

So, we often therefore, call it tapping into an innovation ecosystem. A very popular way of tapping into this open innovation is by organizing competitions. So, you put a big amount of money and say. I am looking for brilliant ideas in this particular domain and that way organizations often actually get hold of very important developments, which within their organization because of the structural inertia might not have, might not have happened. And then they acquire this from various ways through joint ventures licensing agreements and other alliances.

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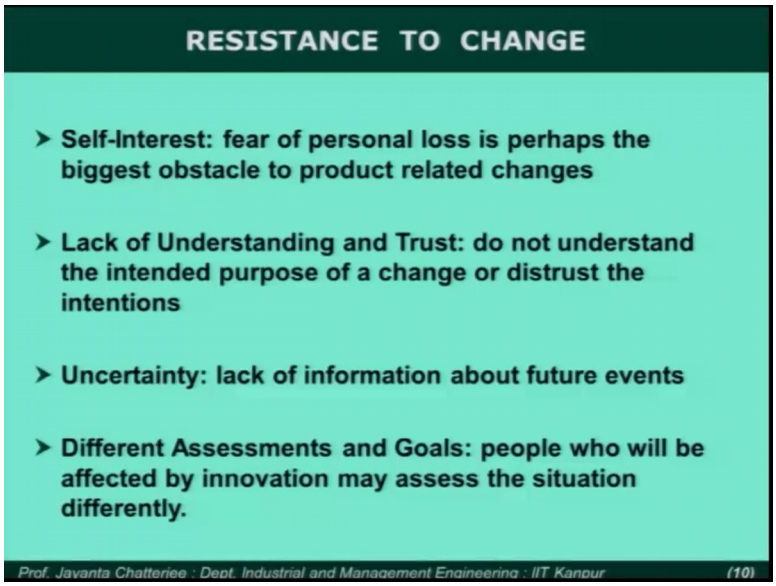


To conclude this discussion about new product development within a large organization; I would like to point out that there are some vested interests and resistance to change, which as a new product manager you should be aware of. And they are not people who are malignant, but they are people who are you know they have they fear their personal loss and they have lack of understanding or trust of this new thing they are coming. They are not prepared to adapt they are not good learners.

So, the uncertainty is not liked by them. So, they will resist the change. So, you have to carefully create the confidence that it is not actually meant to harm that person personally.

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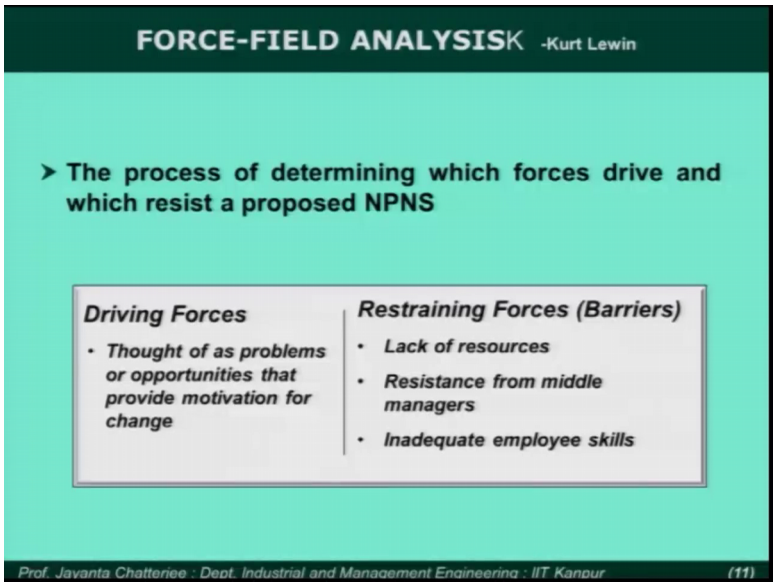


And encourage people who actually will embrace and celebrate the pro changers rather than that no changers.

And sometimes if you actually it is it is good to, look at what we call this? Force field analysis introduced by Lewin. Who is actually a guru of change management and he said actually you know you take this change on one side you stack as vectors the driving forces, things that are necessary to the driving that need for this particular change. And parallely recognize the restraining forces and barriers. If you do this sort of force field; that means, what is driving the need of the change and what is opposing the need of the change sometimes your ideas will become clearer.

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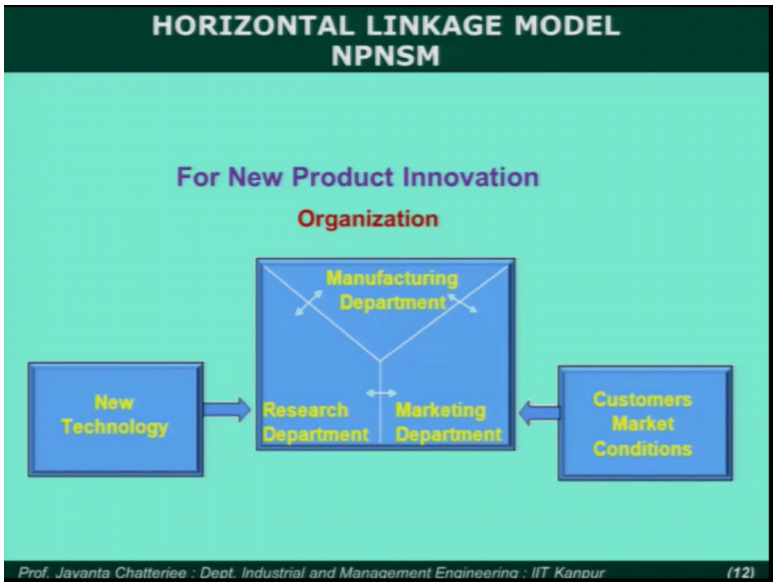


Your strategy will become clearer. I will end with this slide because I am going to introduce another powerful concept used in large organizations called the stage gate method.

And the stage gate method is actually a good way of managing this horizontal linkage. You see here the new technology needs to be linked with the manufacturing department. that is a research department, manufacturing department, marketing department other channel partners and other partners on the market side. They all need to be linked for a new product to become successful from the idea to commercial success stage. So, this journey is to be managed this horizontal linkage model needs to be managed and that is what we will discuss in the next session.

Thank you.