Innovation by Design
Dr. B. K. Chakravarthy
Department of Engineering Design
Indian Institute of Technology, Bombay

Module - 08
Start of section 1
Lecture – 48
7th C: The Connection
Serial innovation in gasoline dispensers

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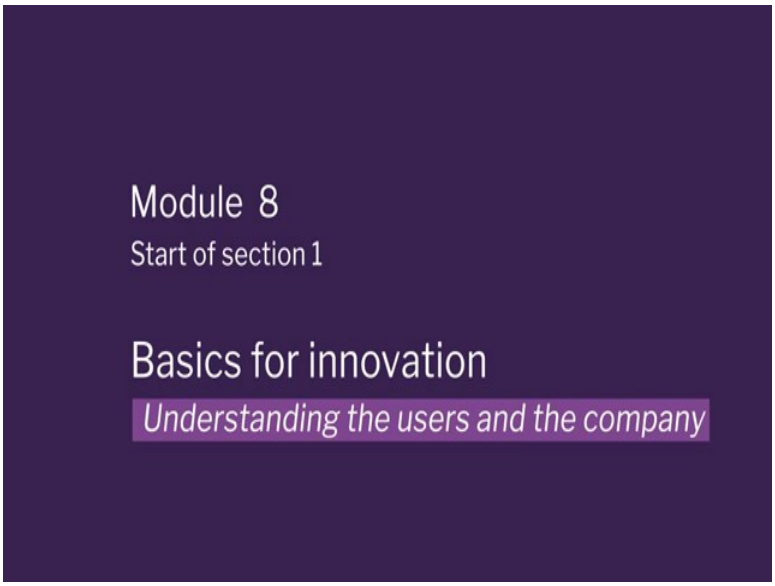

Today, we will start with our last C.

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So, these are the last set of three lectures which is the connection. And, we will show you a live case study in fact I was part of that live case study while I was working at Larsen & Toubro, you will get a clearer idea of how one discipline or one situation or one professional cannot get innovation going on, it has to be a collaborative effort.

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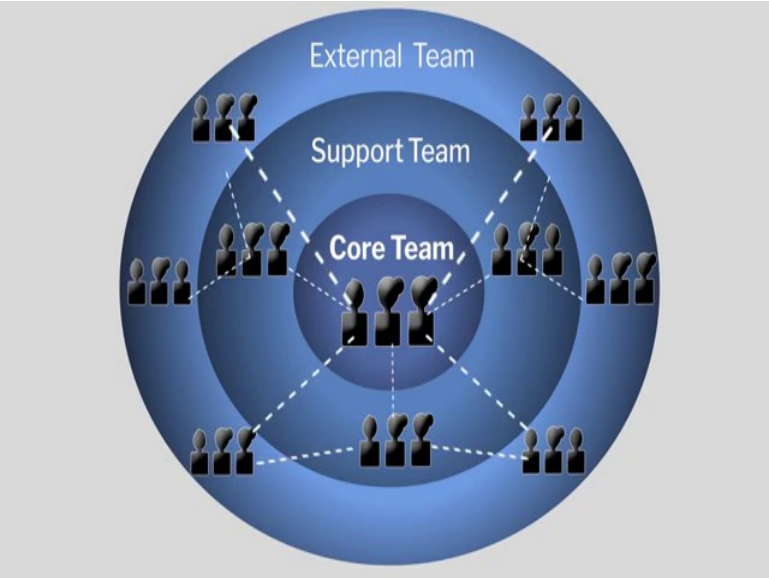

It has to be a culmination of all the strengths of every discipline for innovation to happen. So, these are those you know important series for you to understand the innovation process. So, we are very clear that you know finally, innovation is said to have been happened only if the user gets the benefit, and a large number of users are really you know sort of happy with the type of product which has been designed and it solves their problem.

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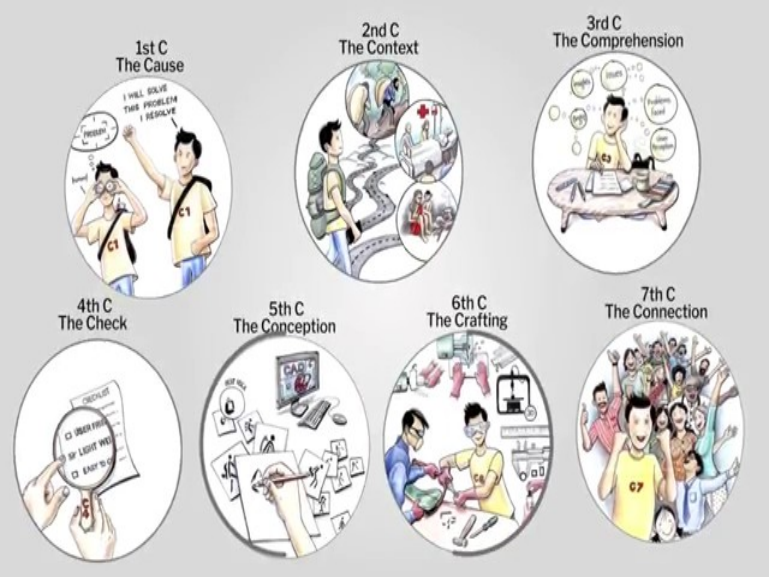

So, the last C which is the connection becomes very, very important in this product. So, what is connecting with the user back that is you have done a design, you did mass production, you gave it back to the users and then the user said wow this is great and get into you know large scale implementation.

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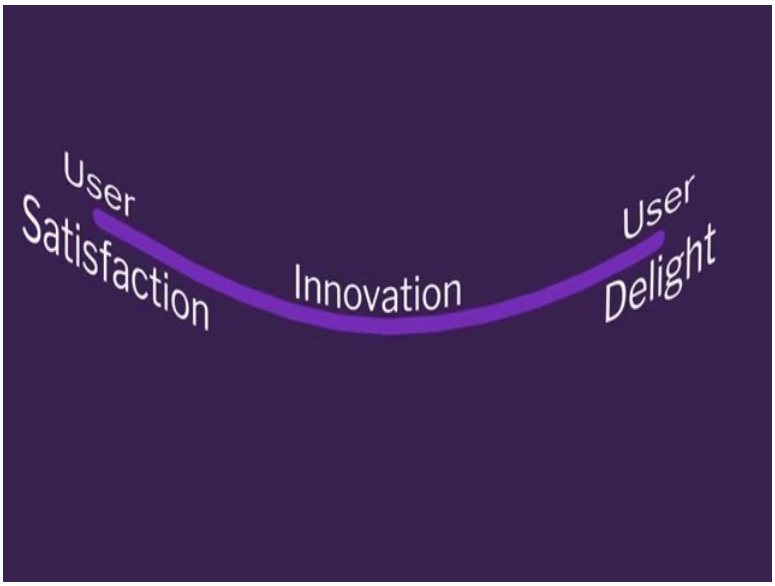

And there is great user satisfaction and delight. So, in an innovation to happen you would have great user satisfaction and delight. So, we cannot use innovation against everything like innovative research, no, innovation is said to happen only when there is user satisfaction and delight, so that becomes extremely critical in our journeys. We should not be in that confusion that we will call everything in a way, it could be a creative idea or it could be a you know cutting edge research, but it cannot be innovative research, till it has not reached the people for whom the work can be beneficial.

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Let us now focus on our L and T Z-line.

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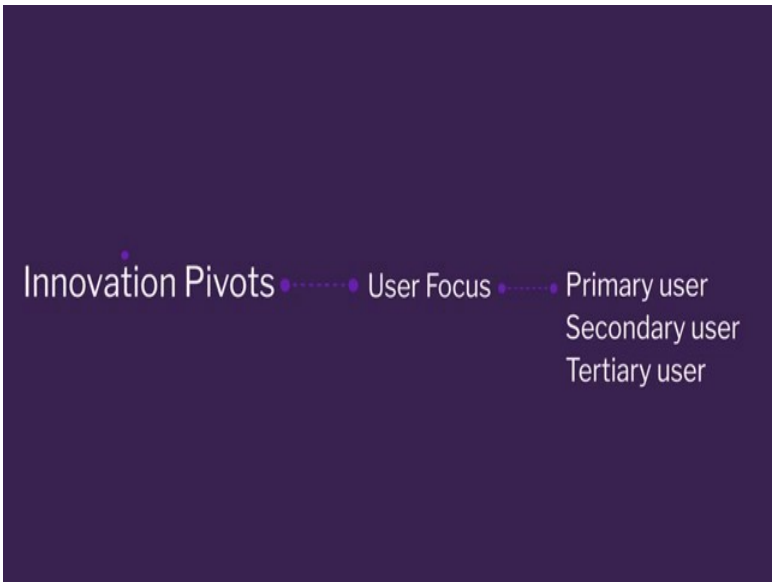

What are the four core pivot which worked over there. The first pivot was user focus, and that the users have different levels this one user who is the end users coming and filling petrol. The other user is a person who is actually filling petrol for you. Tertiary users are the users who are manufacturing the pumps, who are installing the pumps, who are distributing the pumps. So, the primary user, the secondary user who is the maintenance guy and the person who is installing, all these levels of users are very very

important in innovation cycle. So, these you know, so when we say user focus it has multiple levels of users, not just one person who is a end person who is using it.

So, now, let us come to the problem. The problem given you know to us was when I joined the company in fact they had saying that oh we will completely losing business, we have a serious problem in hand, no orders from the companies, because L and T product's were expensive, and it was not having any big advantage over the competitors. So, they realized that our products are not looking good, the realization was aesthetic.

So, let us go to IDC (Industrial Design Centre) and hire a designer who can make the pump look beautiful. So, they were only lacking you know design on a user friendly product. And then when I went into the company I realized that is just not aesthetics and user, user requirement, there is much, much more to innovation. So, then what you know the context was that L and T was manufacturing an electronic petrol pump, this is way back in 1988.

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In 1988 when we had only Maruti cars on the roads, actually Maruti car was just launched when we launched the petrol pump.

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Before that there were only ambassador cars this is that type of era, and I will show you the journey how we went forward. And the focus was that we need to design an electronic petrol pump. Earlier what type of petrol pumps used to be there?

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Mechanical petrol pumps with those meters and oil. Then what is the first thing which struck me when I went to L and T, it is a size, it is a financial muscle and if it is the brand of the company, what will be your design focus when you design for a large company, what will your design focus when you design for a small company as soon as you realize

that they needed a new look pump they came to IDC. So, they are very, very clear that they have to have the right manpower for the right you know work.

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And then this is our division petrol pumps came under switchgear division.

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So, this particular division was our R and D, and we used to have different departments very well organized and very well oiled.

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What happens in large companies like Larsen & Toubro.

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They have very efficient product development and very efficient manufacturing, and very efficient sales and marketing. All the models are there. When you do design, innovation by design, you have to look at the creative ideation part which is missing, you have to look at completely out of the box product which is missing, and you know all the trolls fell on me when I joined the company.

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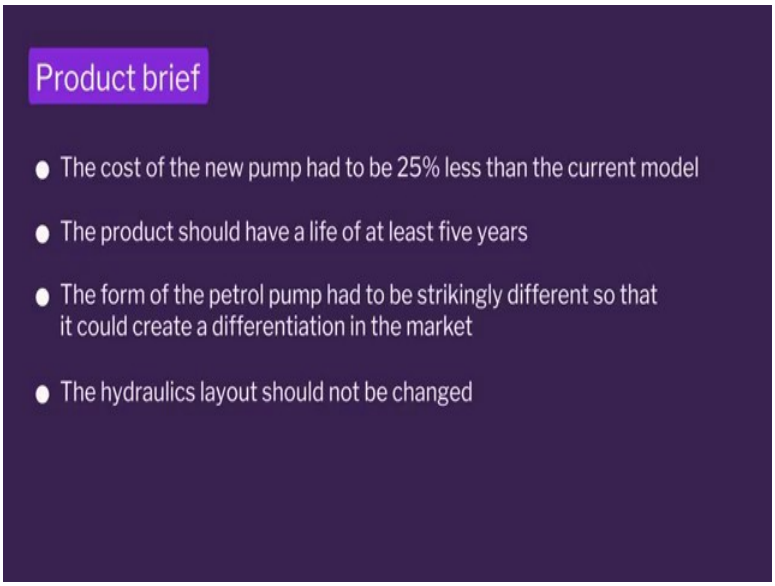

So, on top of it the R and D head came and said that you need to reduce the cost of the product between 25 percent. So, that is the main requirement they came up with, then you know the product should at least last for 5 to 6 years in the market as a champion product. And, the form and aesthetics of the product had to be strikingly different, and you know new in the field because they were already out of business, and competitors had you know they already have you know had great product.

So, they need to do that. And then they said do not change the hydraulics because hydraulics is already ready. And if you change that it will take a longer time cycle, if you change a lot of things, your product lifecycle will go up.

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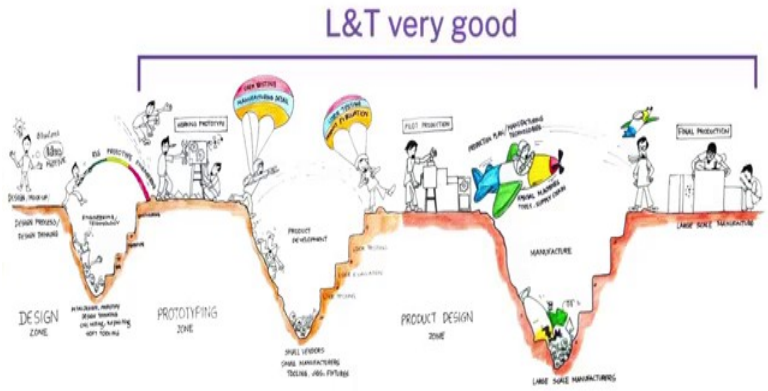

Now, if you look at the pitfalls what is interesting is there was nobody in the design section in a mock up section, the first one which you saw, in our pitfalls for the innovation process. Whereas, all other sections of you know prototype making, pilot production and mass production, L and T was phenomenally good. So, there was a big advantage for me right.

You could start and come away with a great product idea, and it will sail through all those stages. But here I am sitting in a one of the best companies in the world who have all the other process, but are missing the design process. So, as I told you today innovation if it has to happen, it has to be across all the segments in the product.

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You have to have you know technology which should become contemporary and you know futuristic, you must have excellent user interfaces, your manufacturing has to be phenomenally good, you would have very good management systems in place. We just have to make you know incremental changes in the other sections to make them you know come into the innovation flower.

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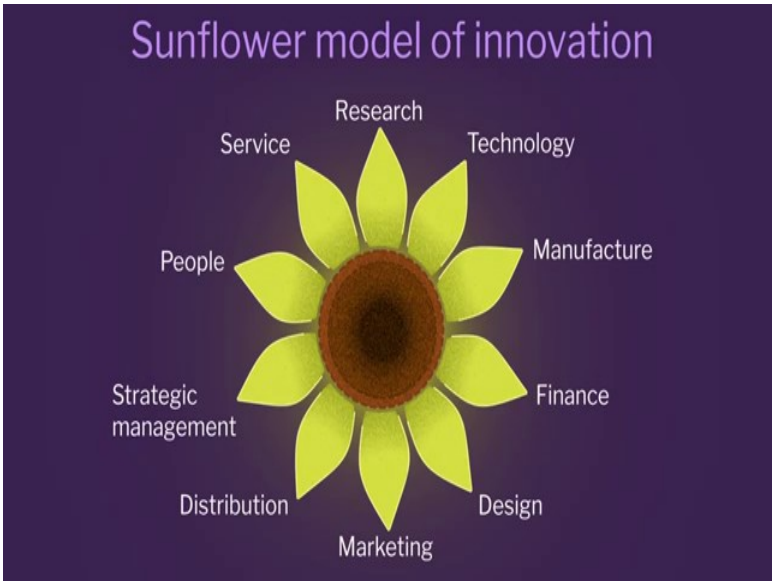

And we I call this the sunflower model of innovation because if you take care of all aspects of the petal, the petal will look towards the sun and that is looking towards the user, and your you know you have innovation in your hand.