Management of New Products and Services (MNPS)
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Lecture – 03
Theoretical Foundations II Product Strategy

As we were discussing in the last session, that even though we have titled the course as management of new products and services, but in reality the concept of product is multi layered. So, goods and services both are integrated into this our way of looking at products or you can think in terms of hardware and software and there are very few pure goods, there are very few pure services they are all usually a blend. So, we consider as goods and services as a continuum of the concept of product. Now our aim is now to get to a strategic understanding of products, to understand products there as an integral part of an organizations short term long term strategy.

So, before we get to those topics which we will take up it may be in the next session, I want to introduce to you this some simple facts which are kind of astounding. About 50 years back may be 50 70 years back before the Second World War in a year, may be at the most 100 products were introduced, in the world, you take good services all put together may be 100.

In the next 50 years may be every year it kept on increasing some thousands of products were introduced in the market every year, today the count shows that hundreds of thousands sometimes close to a million new products, good services are introduced into the world market. And it is amazing that of these huge number of new goods and services may be 4 5 percent succeed; so much effort is put in yet, so little sustainable result comes out of it. Today we I want you to look at a from a strategic perspective why that happens.

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First of all the most reason for failure of a new product is that, it is not distinctive in the sense, there are many products which are me too products which are copycats but yet they succeed because; they make improvements on the earlier pioneering products. To that extent they are solving customers problems meeting customer's needs better. So, we have no problem with those products, but products which have no differentiation whether a radical difference or an incremental difference, but no differentiation have really a low chance to succeed in today's highly competitive global market.

Until and unless you have a cost advantage, a design advantage, a feature advantage, an advantage coming out of deeper understanding of the customer, you cannot succeed. So, the most important point as we have said in insignificant point of difference, but very interestingly this is a little paradoxical, that while to succeed a product must have distinctiveness, must be in some way more appealing it also must have points of similarity.

So, for example, you know all chairs usually they have 4 legs, now within that various kinds of designs by way of comfort, by way of looks, by way of both can be introduced which will succeed. But if you come up with a chair which has got only 1 leg, that means, it is radically getting away from the point of similarity, then very often it will have difficulty to succeed, unless of course you make that like a bar stool in front of a long table where such designs have as acceptability.

So, that means a product to succeed has in some way to conform to convention, but in many ways it must break the convention. This is the paradoxical challenge and not many companies can manage this challenge.

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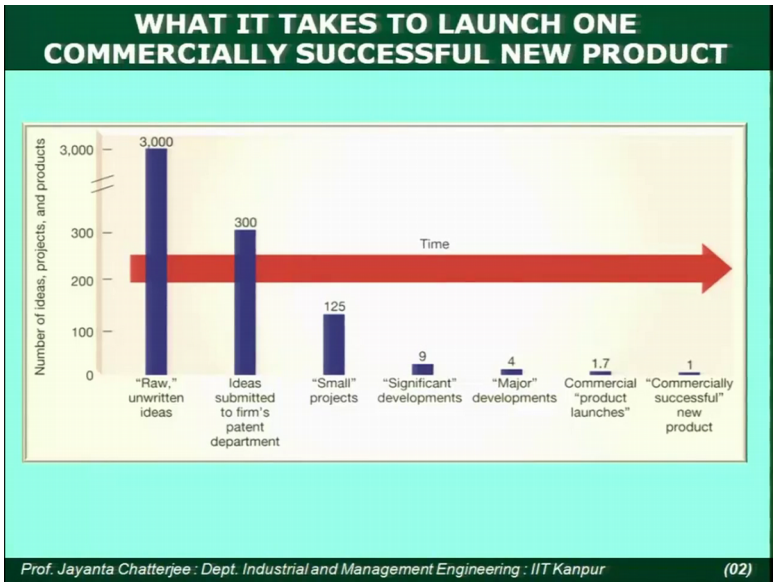

The other thing is that at any point of time in a company, the employees, the management, students in an university college even in schools today, people dream of becoming successful entrepreneurs becoming millionaires by the age of 20 and so on because there are such examples.

So, there are no dearths of dreams about new products. So, this if you want to see on the left hand side extreme left, that in a company on an average, 3000 new ideas are discussed, but most of these are not written down they are discussed in the cafeteria, they are discussed in meetings; but when somebody is persistent as a champion of a new idea, then the company may actually make it write it down put it forward to management, if it is distinctive enough it may go to the patent department and so on.

But you as you can see from 3000 at that level we have 300 ideas. Now these numbers are average of a study of comp comprising of few 100 companies. So, some companies are have bigger number, some companies have smaller numbers this is an average picture. Most important point here is that from 3000 articulated ideas sparks eureka's only 300 get properly written down and proposed and then as you can see out of those

300 may be you know one forth or so 100 product ideas will be taken up as small projects.

Then based on the success you know may be 10 is you see, at every stage we are dropping by a factor of almost 10. So, 100 projects are taken up 10 projects become significant. So, ultimately you can see on the right hand side extreme right hand side we have one commercially successful new product. So, 3000 ideas result into one good new product fantastic challenge. But the point is because we have only one, you cannot stop ideating you do need to create more ideas because, if 3000 you can generate 10000 ideas it is possible because, of this funnel shape maybe you will have 3 good successful new products.

So, I think from this ah very interesting research study you can take 2 lessons, one is you do need to create more and more good ideas, but those ideas must be written down properly constructed argued composed. So, you need to actually not make it like a one persons eureka like arc Archimedes is supposed to have shouted eureka, but you need to work in teams look at all different factors and come up with more concrete proposals. The more proposals you have well constructed proposals better will be chance of coming up with finally successful new products, and the other thing is you must know that not all will succeed.

So, therefore this discipline of maintaining this funnel is important and different companies adopt different processes to manage this funnel and some of those we will discuss later on.

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Some other reasons why new products fail are inadequate market and product definition, before the product development starts this is very important. As we say in you know just colloquial language, that you have to be ready aim fire not the other way round; that means, random firing will not lead to good new ideas because, it is very expensive to come up with new ideas and in today's world in this hyper competitive world therefore, you have to be very precisely targeted.

So, you have to know the customer segment you are approaching, you have to understand that segment deeply. So, that you create a value proposition that is truly appealing to that market segment. That is from the market side and the product itself must be distinctively defined, it must have good user interface, it must have well thought out usability factors.

So, you can see here both tangible, scientific, data based, concrete factors need to be considered, as well as emotional factors appeal psychological factors need to be considered, together they create good user interface good usability good design.

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So, we have this whole concept of design thinking where we blend these concepts, so we will discuss that. So, to summarize some simple questions anytime a particular product idea comes up you can put this to test the simple tests, first of all why will anybody buy this product. So, there must be very precise clear understanding not because you know I have designed this product, so people will buy or we are very famous our company is very famous. So, they will buy or you know this person is a famous scientist, so this product will therefore, since he has conceived this product it will fly no.

You should answer this question why will anybody buy this product, by answering what jobs will this product perform, what problems of the customer this product will solve, what pains will be taken care of and what new gains will be offered. So, remember these 3 concepts, that pain solving gain offering and getting some job that the customer wants to get done to do that effectively. Of course in spite of all these sometimes products fail due to bad timing which is also a little a difficult thing to do sometimes; like today this I phone before that I pod phenomenally successful introductions, but that same many of the ideas that have become so successful for which we love I phone or we loved I pod were actually introduced by apple in an earlier product called Newton; which failed because it is timing was not right. And it is packaging was not right with respect to products available at that time in the market as personnel digital assistant, that same a few years later almost with the same idea a product came in a little different packaging with some other interesting user interfaces called palm pilot and became very successful,

but palm pilot also gave it is gave way and new products came because, many of the features which were in palm pilot separately, got integrated into the new phones which started coming into the market.

So, this evolution we discussed in the earlier session, this also has to be remembered that no success very few products our perennially successful, the products have to evolve change; but before anything at the very beginning it must answer these fundamental questions why will anybody buy this product and next why will they buy it from us, what is there in us, that sets us apart gives us a claim rightful flame for successful ownership and introduction of that product.

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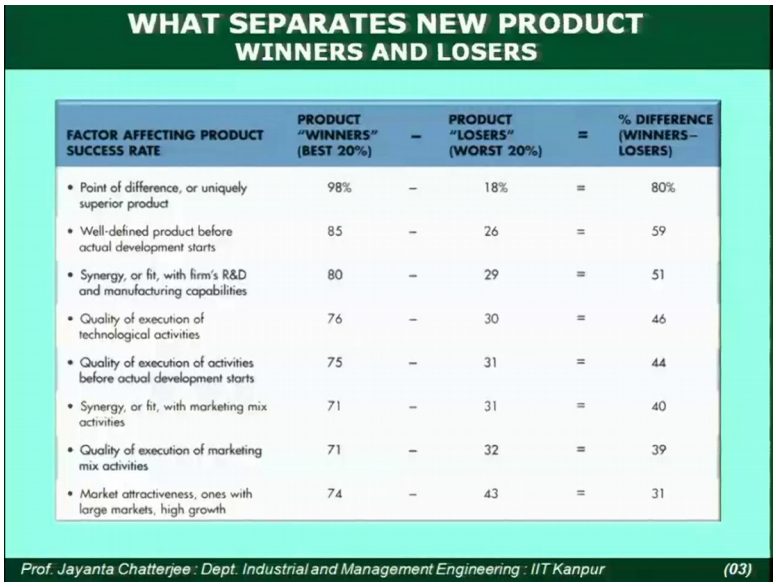

The third question is why will they continue to buy this product? Because, some products are brilliantly successful at the introduction stage then they die, this also is a whole interesting set of discussion which I hope we will be able to take up. So, you have to be very understanding that why people will continue to buy your product.

So, why will anybody buy this product, why will they buy from us, why will they continue to buy from us and will they talk about this product to others, will I get that word of mouth traction; these are 4 fundamental questions which must be asked to test all ideas and you can see this is a research study on your screen and as you can see here point of difference or uniquely superior product the top 20 percent winners and the bottom 20 percent losers, the difference is almost eighty percent 98 percent versus 18

percent; so that means, the uniqueness and remember I have said uniqueness does not mean always radically different uniqueness, it could be incremental uniqueness is a important factor.

The next one is well defined product before the development starts, sometimes products our bright ideas come, but they are not properly shaped good research at the design stage is not done. So, as the product starts progressing very expensive reworks become necessary. So, sometimes you launch the product and then you come back to the drawing board no, spend as much time as possible at the design stage thoroughly research and that is why design has become strategic today because, it leads to better success rate and then I said that why will anybody buy from us means what is our claim to fame, which means that the product must conform to our capability our research and development our manufacturing capability it must have therefore a synergy or fit.

It can stretch you can stretch your current capability, but it must it cannot be completely out of the whack. So, you have you are a tooth paste manufacturer or better example is suppose you are very successful as a bathroom cleaner manufacturer, you have tremendous customer base now the same customer be also buying toothpaste, but because you are successful as a bathroom cleaner you may not be successful as a tooth cleaner. So, you know there has to be many thoughts with respect to synergy from your companies image perspective, the positioning of your current brand with respect to the new brand that you want to create and so on.

We will discuss these in greater detail later on and of course execution the quality in the final product quality of the manufacturing activities and all that all these are very important. So, idea very famous design company in the world has very nicely put this in conjunction with stand ford university, this pyramid concept of desirability, feasibility and viability, this DVF principle is very important at this early stage for a product to succeed; desirability that takes care of the customer appeal all these things that we discussed, that how distinctive it is how well it solves customers problems gets customers jobs done.

So, that is the from the market side customer side the desirability, then comes the question of feasibility in terms of economics in terms of commerce in terms of cost versus price possibility and all that and then of course, it is technical feasibility, you

cannot actually think of a product which will be like the storybook like flubber. So, it will actually be just flying define the law of gravity.

So, may be at some point in the like today we know that there are magnetically levitated trains, which can run at fantastically high speed because it does not have to be or any friction, but that is still quite expensive that technology that cannot be used in everyday vehicle, that is used in some high sp high volume requirements. So, you know there is 1 in shanghai or there may be few others now coming up around the world. So, the point is that it has to be technically feasible with your capabilities, your facilities, your resources today; it has to be commercially viable with respect to your cost structure etc, availability of raw material and at what price you can source the raw material and so on and above all.

So, desirability on top this viability and feasibility at the 2 bottom corners, this pyramid is extremely important and in a way this chart that you have in front of you is an embodiment of that DVF principle in more detail here.

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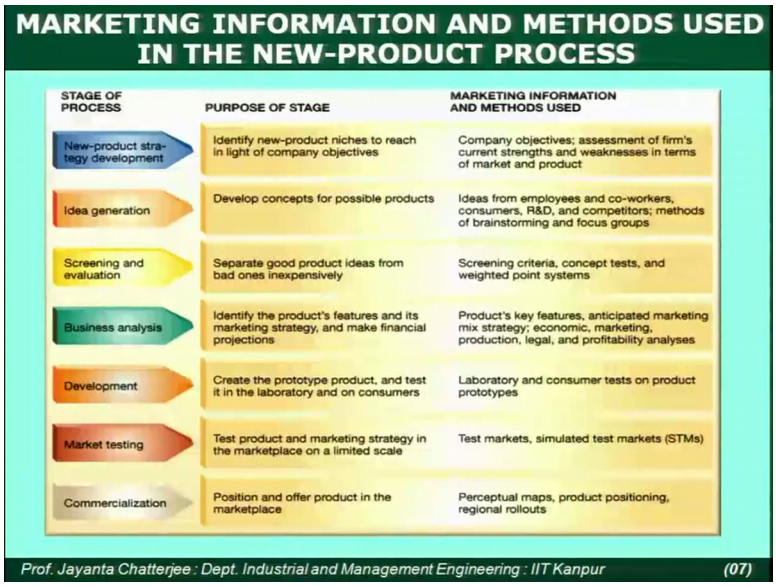

You as you see that same diagram that I showed a little earlier, that it goes through a number of stages that is how we manage the funnel, this is one of the funnel ideas this idea generation then screening and evaluation of the ideas then analysis of the business potential development market testing and then finally commercialization. So, it is the

same DVF principle taken in stages and this particular diagram shows a step by step approach.

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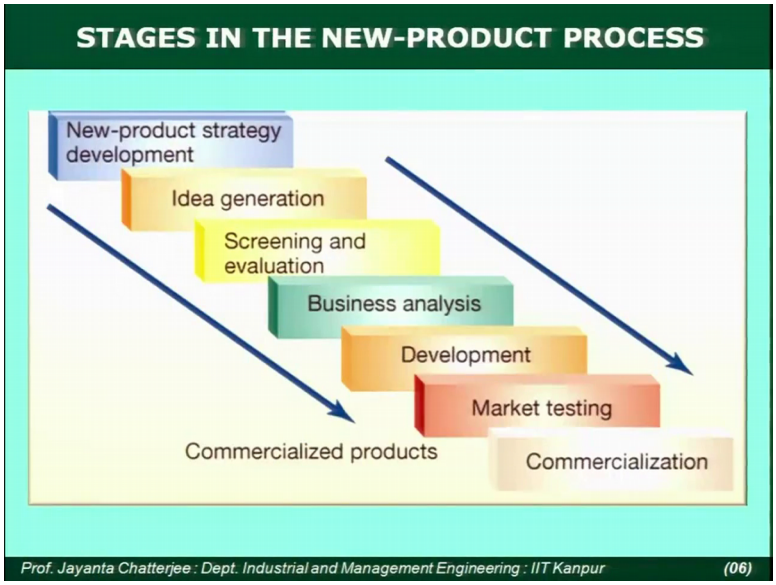

But in reality today it is not actually this linearity quite difficult to achieve this. In fact, this may be a recipe for disaster. So, what we say is that these stages instead of considering them as one after the other and you know one stage finishes you hand over to the other stage this used to be the old thinking; today we say that this steps of strategy development for a new product idea generation screening, business analysis, development, market testing, commercialization are very interactive. So, there will be many sort of so there will be many you need to go back and forth, you need to go around this that. So, there will be multiple stages where you will have to sometimes jump one stage to the other stage.

So, therefore, at this development stage you may actually parallel along with business analysis, you can go and this screening and evaluation may have to be done simultaneously not one after the other, because it may be too expensive and it also reduces the speed. So, the finally therefore, it is you should consider these stages as multiple loops. So, there may be at the market testing stage long before commercialization when it is thought of you may have to go back to the screening stage or idea generation stage may actually come from market testing of one product a new

idea may come. So, they have to be therefore, you have to think of this particular as an non-linear multiple loops reiterative process.

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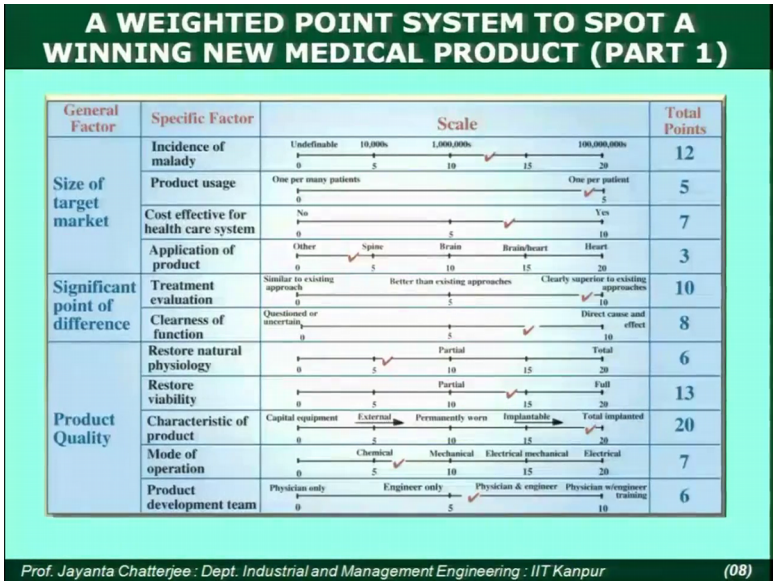

I will now conclude with a concrete example from a famous company, about they make medical devices and you can see how they actually translate this DVF a principle that I talked about. So, first they look at the size of the target market you know that this particular product medical product, it actually responds to what kind of incidence of malady.

So, if you say un definable then you get a score of zero if you normally find that 10000 then it is 5 and it if it is a 1 million occurring incidence of melody; that means, it is a widespread malady there is a great need around the world, then it gets a score of 10 and above and sometimes it may be an epidemic sort of melody and then of course it goes to 20. So, you see this particular product got a score of 12, the product that is being talked about this is actually a heart sort of pacemaker at a low cost pacemaker, then product usage if it is 1 for many you know, then obviously the usage the quantity that can be made and sold will be less.

Whereas if it is 1 per patient and if the melody that it is addressing is in millions, then that means, you can make millions of products, so obviously it is more attractive. So, here you have a score of 0 to 5 and if it is actually contributing to health cost effective health care, then you see you are you are again scoring from 0 to 10, this particular one

actually got a score of 7 and then application of the product this particular one you know brain heart these are critical.

So, this particular one is relating to a sort of a brain related, but it is on the spinal area and it also relates to the heart activity blood flow activity, so this kind of got a score here; then it comes the point of differentiation you know as we said that how different it is with respect to solutions that are now available and then it comes to the product quality, by way of the use of product the mode of operation the simplicity the easy compatibility with the current kind of use. So, what we call backward compatibility all that and then these are the market issues that whether your product your brand your company is known to the target market and how well you are regarded as an inventor and how good is your timing so on and so for.

So, this particular product got a score of 145 and the companies actually set up this kind of scores it will be wearing it this one is for a medical product, this will be different if you are actually coming up with a food supplement; there may be a different scoring system will be needed, but the point here is that some kind of scoring which looks at this desirability feasibility and viability based on that some screening is necessary and then during the process you need to set up a reiterative multiple loops. So, that you can easily go back and forth the more time you spend in the early stage of a product conceptualization, more you work out the flaws with prototypes and more times you test the prototype better will be your success in a new product.

So, as you see here therefore we try to stress that managing a product is a process which in some way is simple, but in some way you have to be consistent and persistent to be successful in that. So, that you can do it following and algorithm which is based on this DVF and multiple loops and a reiterative process and understanding that success is a tedious process is a laborious process.

So, it is not a eureka process, it needs to be you need to put intellectual physical labor into it, you need to go out into the market you need to talk to real customers, you need to work within the company in a multi faceted multitasking group, these are the ways we will succeed. Now with the point that we discussed today that you need to be compatible with your current resources and the fit synergy or fit with firms current strategy as well as current capability, in the next session we will take up the understanding of what fits

when what is do we mean by strategic fit and strategic stretch, that will be our topic for the next couple of sessions.

Thank you.