Management of New Products and Services (MNPS)
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Lecture – 09
NPNSM-Understanding Product Platforms

We are going to discuss a few important aspects about the intersection between strategy that we discussed in a previous session, and the corporate strategy, and the product strategy. This is a going to be a brief session, where I will first talk about the competitive strategy fundamentals that we have already discussed. It is on your screen and we have said that the two main generic strategies that are used by organizations are either price based, where you need to have a low cost operational excellence competency, or product differentiation, where you have to have a distinctive design user interface design product feature design capabilities.

I have referred for this particular session to certain important aspects that were pointed out by professor McGrath in his 2001 publication. His book is mainly about the segmentation and product strategy for high tech companies, but some of the topics, there are important for any kind of segmentation strategy and product strategy today.

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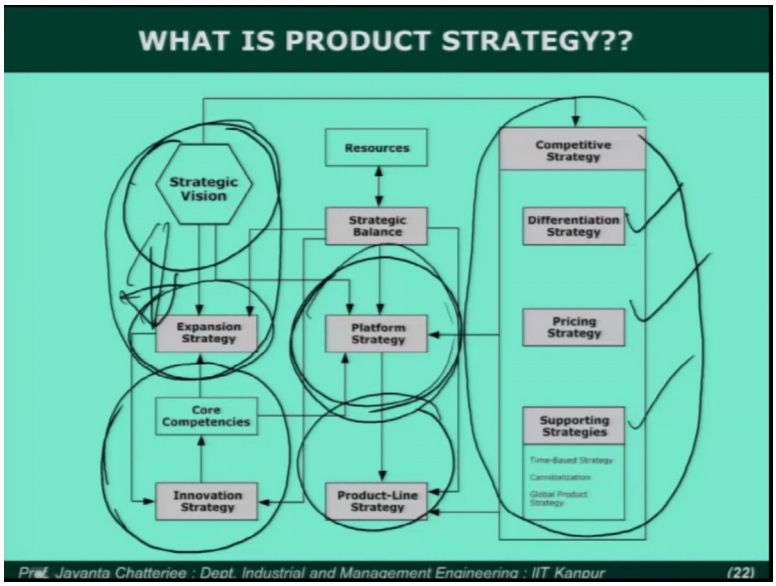

This is kind of a map that is telling you, how we are going to look at. So, as you see here, we have strategic vision, this is the place where we start. The strategic vision tells us that

what kind of expansion we need, whether we need more volume, whether we need more profit, whether we need more geography coverage, where we need more high spending customers. All those issues can be covered between the strategic visions and from where this expansion strategy is created and then the other side. So, this is like what you want, we often call it a position strategy; that means, you are at a certain position and you want to get to another position. So, this is position oriented.

And then do you have also a competency based or do resource based strategy; that means; your core competencies and the kind of innovation are indeed design development capabilities you have. So, between these two, you create some kind of a strategic balance from where you evolve. What we call this platform strategy and product line strategy? This is actually what we are going to discuss. It will actually later on relate to a more detailed competitive strategy, differentiation strategy, pricing strategy, and other supporting strategies. We will discuss those in the future sessions. Today, we are basically going to focus on this, that what is exactly is this, platform strategy.

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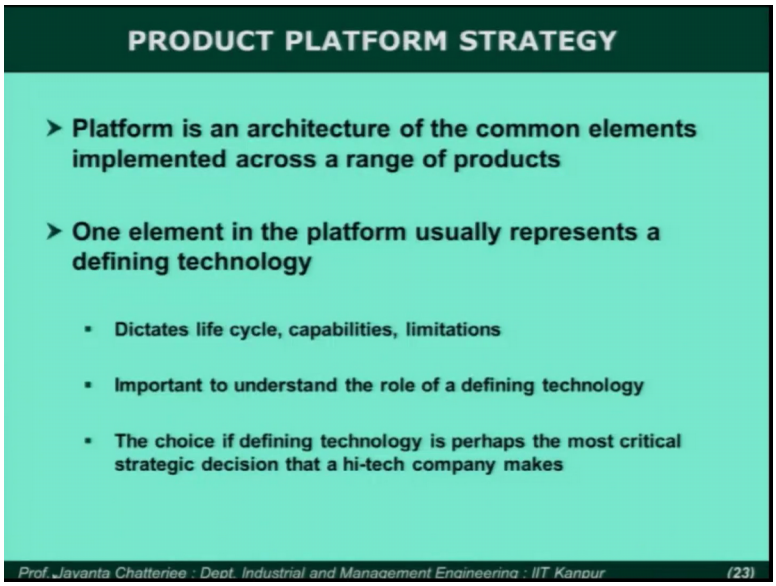

Platform is architecture of common elements implemented across a range of products one element in the platform usually represents a defining technology, but then using that element there can be different additions and alterations by which you can actually address different customer segments.

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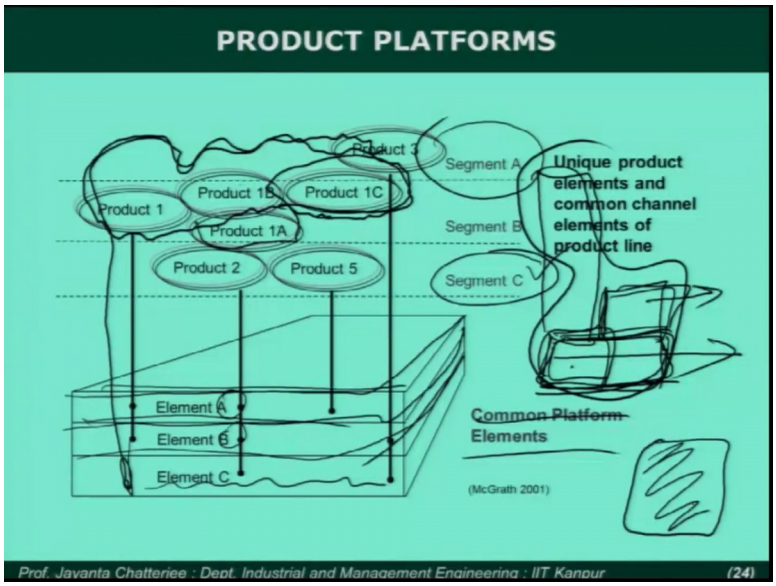

Look at this, this is a very key diagram and this is the core of this. What this short session you can see here that, these are called a common elements. You see element A, element B, element C. These could be feed, this could be something like a material property say for example, you are into gear making and this is actually where your gears are made of material, which is you know very safe for food and other items, which will be meant for human consumption.

Now, there as you can see you can have some elements. So, element C is the fundamental element say this one. Now, you may need to add some element B and some element A by which it becomes a range of product, which will be very good, for say food processing industry.

On the other hand you may need to have another set of combination, where you will be able to address, say the pharmaceutical industry. So, you are looking at the same types of products, but you are developing this product 1 and it is variant which is product 1 B or product 1 A and then it another set of product 2 and or product 5. So, here you can see suppose, your core is coming from for the food processing industry.

So, you have for the food processing industry gears and different other machine elements, which you supply to people, who manufacture food processing machines. So, accordingly you have product 1, product 1 A, 1 B, 1 C. This is your core then you say, if

I can add few other properties, then maybe I can address the pharmaceutical industry. So, then you actually create by adding those elements.

So, platform therefore, as you can see it is like stacking, this is a platform right, then on that we are stacking another set of elements, on that we can add another set of elements. So, you can think of this as a kind of a jigsaw puzzle. So, today you are actually covering certain markets, using these two blocks and you know in that we the children play with blocks or Lego pieces.

So, it is like these two blocks, together give us one kind of marketing capability, segmentation, targeting, positioning capability and by adding this and then this actually gives us another set of market address ability and then maybe we can add another block by which actually we are able to create another set of a marketing capability.

So, this is a key concept and today as you can see from the strategy that are deployed by very capable companies say for example, Intel right. So, Intel first came with micro processors and those were used for almost hobby computers. So, in the very early days, you know, when this 1 8 6 2 8 6 computers came, they had limited capability, but they were an exciting tool for people, who were interested in computation itself, but from there; so, therefore, that elements those microprocessor, basic architectural elements have remained the same, that is kind of the platform of there.

And the platform actually also determines the kind of machines capabilities processes, people their competencies, all those, all that having put together then they created higher speed micro processors and as they kept on adding stacking elements, after elements with respect to speed, with respect to safety, with respect to security, with respect to address ability of memory etcetera, market segments kept on adding one top of the other.

So, from the hobby computer enthusiasts, they were able to address the need of everyday people and you see on the parallely; they were development happening in the software side. So, as we, Intel was developing. So, where Microsoft and other companies, and so, stack by stack block by block you created the basic platform remained the high quality of almost flawless microchips, but those microchips by different kind of additions kept on becoming more and more powerful and they could actually address the need of home computing and today they can address the need of almost every kind of computing. So,

you can actually, even today string together personal computers, which were originally created using the first set of micro processors.

Now, you can even use create, a supercomputer for fantastic performances stringing together these and which is very abele. It has been demonstrated by organizations in India like C DAC and. So, that is actually another way of looking at the power of this platform technology and today, you know, you can actually add elements and you can actually create a computer for suitable, for a complex game players, computer based game players, you can actually create something which is very suitable for graphic designers and people who are in publishing business.

You can create another class of computers primarily meant for people, who are doing visual image management and visual image technique; in even you know making short films and editing films and so on. So, hardware and software both today therefore, take this kind of platform and they work hand in hand and a platform therefore, you can also think about these elements and their combinations create products for different market segments, for different market needs. So, you do not every time take a monolithic approach and you do not actually create.

So, if you look at even a chair, today if you compare it with chairs, that were made some 50 years back and you compare that with an office chair that is made. Today, you will see, it comes in different modules. So, that if the wheels break, you can change the wheels, if the back is not properly functioning, you can change the back of the chair, you can change the seat of the chair. The modularity is a concept that goes very well with this platform concept and between modularity and the platform; we have made products which are much better for manufacturing, much better for repairing.

So, all these what we call design for X design for manufacturability, maintainability, reliability, all these have become possible, because of this platform and modular strategies

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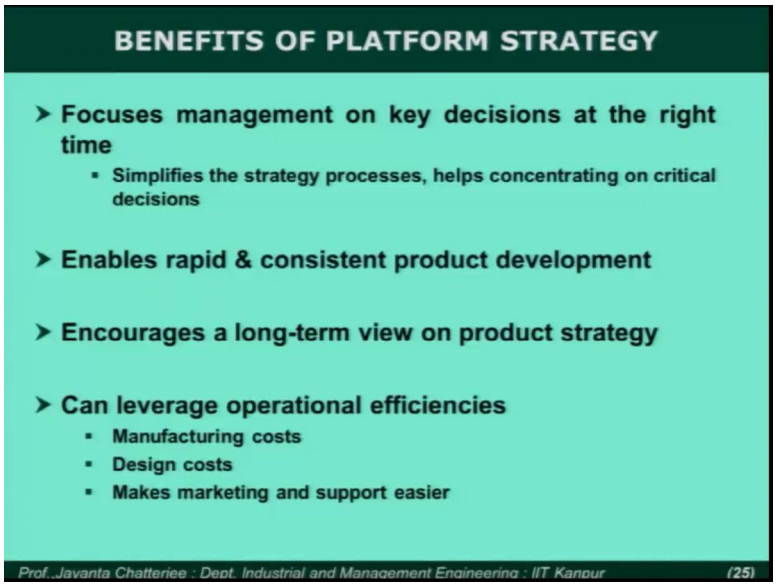

So, this is a kind of a summary that explains the benefits of the platform strategy and how it actually allows us to do rapid and consistent product development.

So, if you actually take today, open your computer and you look at the motherboard, you will most probably find that it is a board, where numbers of places are vacant. So, we actually those are deliberately created, because those are places where you can just insert tomorrow and, because today, you know all these chips, they come in easy insertion mode. So, you can actually sometimes of course, there may be too small, for you to do it at home. But some may be actually you can expand your memory size.

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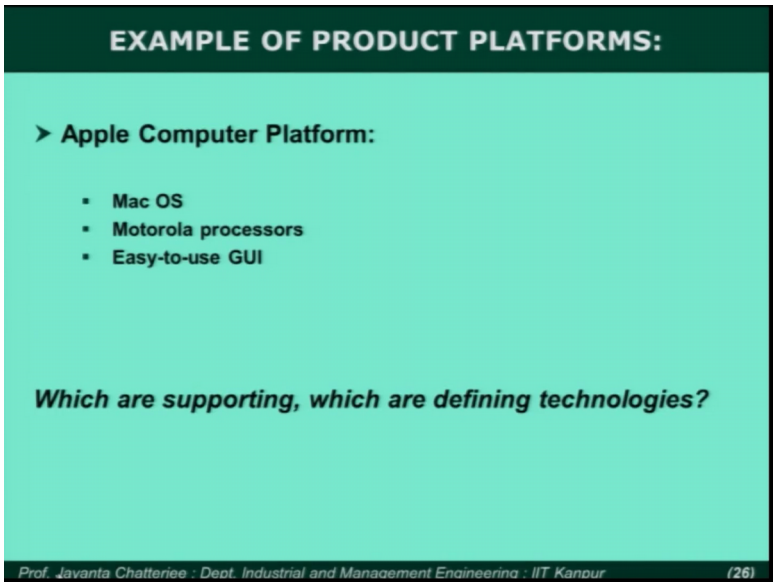

For example, of your computer, just by using another memory chip, that vacant space allows you to add another memory chip and that a depiction of this modularity and platform strategy, that we discussed and a platforms are, for example, it is apple platform the Mac OS or the Motorola processor or different kinds of easy to use GUI, that is graphic user interface like, your mouse etcetera. These are all different examples of the platform strategy and a product portfolio is, what happens if you actually deploy your platform strategy well, you see using this platform strategy, you have product 1 A 1 B 1 C, this is a product portfolio, your product 2 product 5.

So, product portfolio is fundamentally using the product platform and modularity strategy, you create different combinations. So, they are not entirely different, certain elements will be same in all the products and thereby you actually create different strokes for different folks, you create products which are highly appealing to different kinds of a customer segments.

So, take for example, even a simple thing like muesli or breakfast cereal. So, you have conflicts. You have oats and they are all fundamentally, may be based on a say conflicts or maybe based on oats and then you can add elements and you can create a particular, which is meant for weight people, who want to lose weight or you can actually create something, which is very tasty and appealing to children or you can create something

which is very important for people, who need high level of energy, sports persons and so on.

And you create another sort of breakfast cereal. So, you see this is an easy one to understand your base is our oats and then you are adding maybe different types of nuts or different types of fiber elements or different types of seeds, which you make it suitable and appealing or maybe chocolate chips or dry fruits and it you therefore, create different products. So, this is what we will call, creating a product portfolio using the power of product platforms and modularity. So, that very quickly we can address different types of market segments.

So, you remember that tam one that we said your address market to start with, but then step by step using this modular approach, you can at one point of time, cover the entire tam too or the total addressable market or everything that can be all kinds of breakfast cereal markets can be addressed, once you approach this, because you can, then increase the speed of your deployment also.

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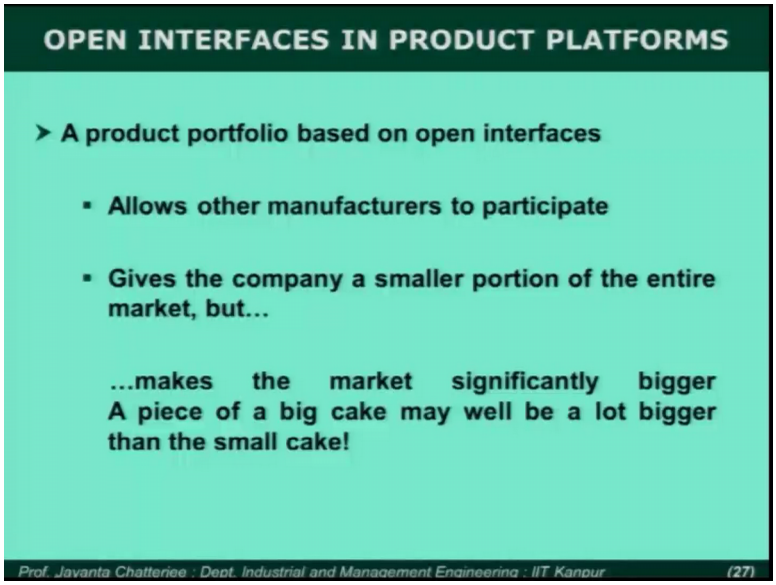

The other important point, our ending point is that a product portfolio with open interface often allows other manufacturers to participate and gives the company a smaller portion of the entire market. But a small portion of a very large market is better than a large portion of a small market.

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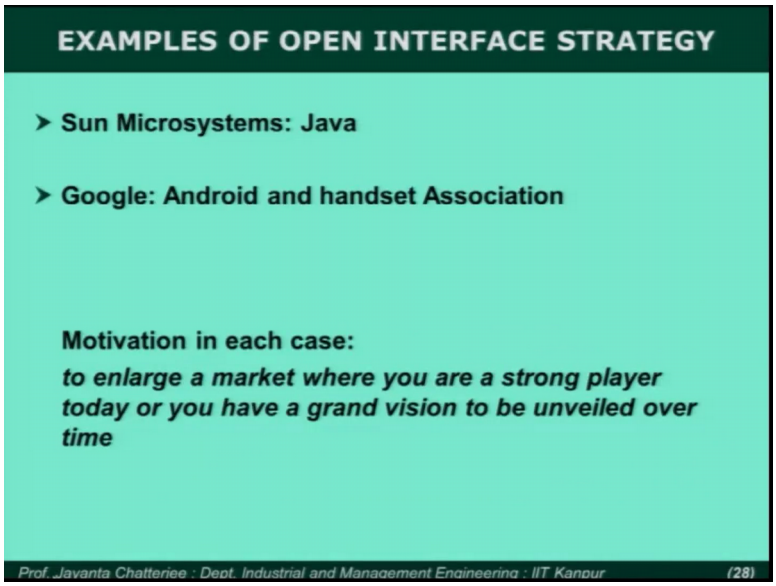

An example I think you can easily guess like say, Sun Microsystems' Java. This is actually an open product system that many people can use and Sun Microsystems' did all the research and all the investment in that and they continue to promote this, but by using Java, sun microsystems own products have benefited.

But a large number of different types of products and software have been created, which make suns own workstations much more appealing to customers or a great example, the collaboration between Google Android and the handset association. So, Google keeps on developing Android and at adding features as you know they are all called candies, you know Lollipops and etcetera and they keep on creating these versions, put all the investment and they, in a way it actually expands the appeal of the smart phones and handsets. More and more handsets are used, more and more people use Google Android and that becomes a dominant operating system.

And sometimes companies use this for some kind of a grand vision that is not easily understandable in the beginning, but as it keeps on expanding today, as you can see that with the high dominance that has been created Gube by Google Android and the handset association collaboration, you can now see that what are the different ways, they are now trying to approach the requirements which were earlier fulfilled by laptops.

And they are snatching that market away and the laptop sales are declining and the smartphones and the tablet phones based on this Google Android, and the handset

association collaboration it is rising; so, that you can actually sometimes by creating this, open interface platform. You can create some long range, highly powerful strategies in case of products, that is where we end today and we will further expand on this in the next session.

Thank you.