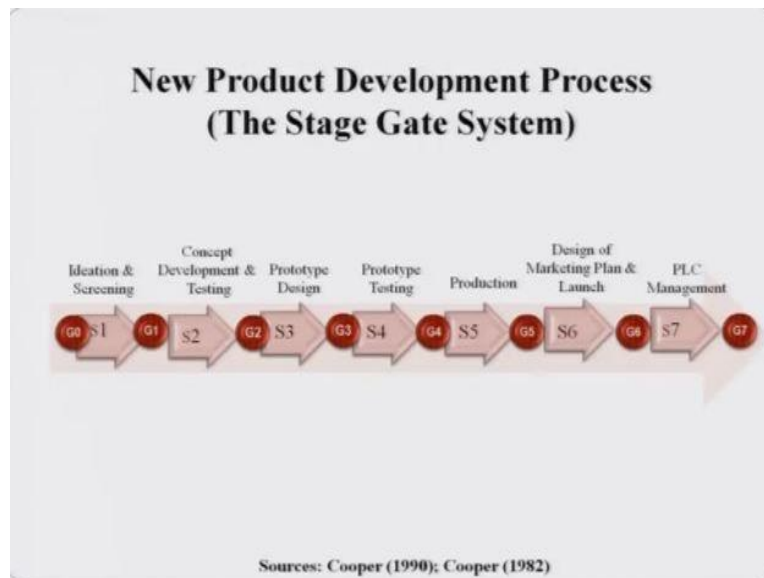


Marketing Management II
Prof. Jayanta Chatterjee
Dr. Shashi Shekhar Mishra
Department of Industrial and Management Engineering
Indian Institute of Technology - Kanpur

Lecture No. W2-L3
Product Life Cycle and Introduction to Strategy

Hello and welcome to our course Market Management part II. We are in week two and this is session III, we are about Product Lifecycle Management. I am Shashi Shekhar Mishra and I have with me senior colleague Professor Jayantha Chatterjee. Hello, we are from department of Industrial and Management in Engineering IIT Kanpur. So just to give a recap of what we discussing in couple of previous session.

(Refer Slide Time: 00:36)



So, we started taking about new product development process and then we started taking about how this new product development process has been conceptualized in this stage gate system. Where in the different stages of new product development process have been the different activities of the similar type has been kept inside the stages of this stage gate system and at the end of each of these stages you have a gate.

Now, what happens at the end of the each gate is that you have a predetermined criterion for evaluating what is the progress at of each stage and this is where we go or no go decision happens at the organization level. So, whatever is the progress of the probably activities in that stage based on that the process move further now we have started taking about ideation and screening professor Chatterjee's.

In previous couple of the session has talked in detail in depth about the ideation and screening. He is talked about the concept development and testing prototyping concept was also discussed like so that you can come out or you can think of what is the next big idea and then he started talking about evaluating those ideas from the costumer benefits point of view and seller benefits point of view.

So, we have looked in to the different parameters from the costumer benefits side and firm side and as we progress from different stages of the stage gate system you can see, after basically this once you have a testing, prototype design you are ready for production at the same time you will see that the concurrent activities are also started at this stage 6. Where the design of marketing plan and launch is getting ready and was this product is being ready for the market it is launch and it goes to the different stages in its product level lifecycle every product basically is said to have a lifecycle.

When we say that the product has lifecycle then what we mean is that, it goes to the certain stages in its lifecycle however before I move in to PLC concept. I will just say you couple of thing, I like to consolidate the learning from the previous session. And as you can recall that it is suggested that when you basically progress in this NPD process you fail early or you can say that the larger number of the ideas or better you work on its fuzzy front end it is good for you because the robust your work is at the earlier stage of new product development process.

The chances of your success is at the later stage at launch stage is very high. Another point here is that you proceed further you will understand that in each stages there is an input of resources from the organization side and minded it is not financial resources it is the important time of your some of the best people in the organization.

That goes in to each of these ideas or the product that you want to perceive organization and if you fail at the later stages you can understand that is an organization you are incurring huge cost as well as you are losing probably some of the good opportunities. Because when you choose something you also leave something. So those are some of the important thing that one has to keep in mind when he is going through this NPD process.

And I think we should also highlight the importance of the recursive loop or the reiteration, that means at up to this stage that means we have a prototype design, should have no

hesitation to go back to the original drawing board or any of these stage. So, these are the stage 1 2 3 and may be stage for these are the 4 stages where we have the freedom and it is much better as you rightly pointed out.

That this is the stage where we may fail or we may have some problem and we should have no hesitation at that stage to abundant, even abundant in original idea and completely revisit this if required.

Because beyond this stage it becomes very costly if you have conceived the product wrong here. Because once you go into the production process you have invested in the facilities. You have in with machines to run technology. So, all those things are very costly investment from the organizational point of view. And if you fail there it is a lost opportunity and to some organization it may cost that they go out of the business also.

So, now so we basically one must keep in mind that some of the idea which we have talked about that looking at the feasibility from the user need side, looking at the feasibility from the technology side, looking at the feasibility from the business case id. These are some of the important criteria's that should be kept in mind and then back and forth work if it is required people should not hesitate or the team should not hesitate during this process.

(Refer Slide Time: 06:10)



Product Life-cycle Marketing Strategies

- A company's marketing strategy should change as PMC changes takes place over the Product Life-Cycle PLC
- To say a product has a life-cycle is to assert four things:
 - Products have a limited life
 - Sales passes different stages, each with opportunity, challenges and problems to seller
 - Profits vary at different stages of PLC
 - Product require different functional strategies

So, we will move further from here, we will start taking about another important concept, which is product lifecycle. And when we say that the product has a lifecycle what it means it basically means or it asserts that the product has a limited life whether it is a 6 month or a 6

year or a 60 years or probably a century. However, whatever is the number is basically says that every product has a limited lifecycle then, basically the next thing is that sales of product when it is launched in the market over the period of time passes through the different stages.

And each of these stages have their own challenges have their own opportunities and problems for the seller. And basically because of the specific nature of the problem at different stages it is basically desirable that you dealt with those opportunities challenges and the problem in their specific context actually.

Then as you can understand with these stages the profits are also vary different stages of lifecycle and because of these things product required different functional strategies. So, you need adaptation in your functional strategies when you passed through a different stage of product lifecycle. However, what is seen is that many a times it is in practical world it's not so easy to understand whether your product is basically has crossed that introduction stage or that is grown in to growth stage or probably it is in transition.

So, wherever there is a transition in particular there is a difficulty and understanding or basically pointing out that this is you are progress to next stage that is why the changes in the, many times a marketer change to make many adaptations there is a strategy. Because of the failure in identifying that the product has phased into a next stage actually **and** I would like to point out if you go back to the lifecycle that no not this one PLC diagram ok yes, this is next slide we where the sales and profits have been plotted over the point over the time you can see that sales has be shown.

(Refer Slide Time: 08:34)



In this first curve which is in the form of the bell curve or you can say sort of normal distribution curve and there are 4 stages which are said to be present in any product lifecycle though you will find out from the product to product different product category different industry different region that the shape of the curve may vary a little bit or it will change with this specificity of that product.

But you will see that generally it is observed that a product will go through the four stages introduction growth maturity and decline. And mind it in the introduction stage you have the development stage also involved. And that is why when I plot this profit curve over the period of time you will see that in this introduction stage.

(Refer Slide Time: 09:26)



Your profits are on negative side because you have invested in the R and D for bring the product in to the market and then you have invested money in the communication program. So, that the costumers and channel partners move about the product and you will also be basically putting money and creating inventory logistics acquiring the distributing channels. All those things will be probably a very resource intensive in terms of time money as well as people.

So, you will see the profits are in lower side of negative side. And companies not getting any revenue as till the point at it is not come in to the market then consumer starts purchasing it. But once you start getting beyond the point you see the profit goes in to the next stage that they become on positive side.

So, I think at this stage I would like to make two points one of those points we can discuss in detail that is at you can see that this graph here is a concave graph almost exponential. So therefore, this is a period when small efforts small investments in marketing and sales effort can produce exponentially better result. Whereas here more like a straight line so here we have a proportional curve with respect to effort and this is where we get a convex graph that means, we will possibly start getting lesser and lesser results out of more and more effort.

But a very interesting point in the new products often companies see exceptional growth during this stage and they get over excited and they often actually forget that as more has pointed out and this is the point where many products fail, that means a product which has been accepted by the initial buyers like innovators or early adaptors. That product may have features which are not compactable with the early maturity and as a result in a gap develops here and which is called as the chasm theory and the product fails at this particular point.

This is a important point to remember and the second point is that the marketing strategy at each one of this stages will change because this is the place where, may be no standard had emerged this is the actually white is on the basis of differentiation yes so, we say that this is the period of the product leadership as that book called discipline of market leaders as they talked about it.

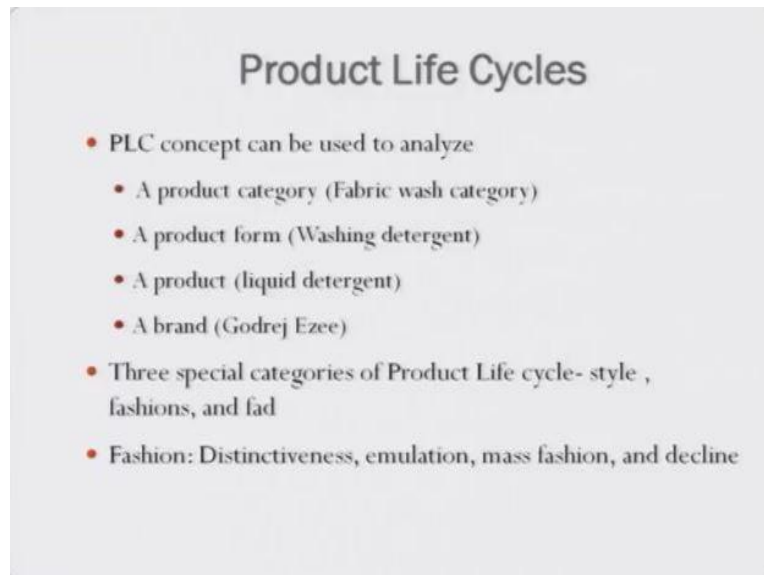
And then in the second stage by that time of the standards emerged and there are therefore a dominant design has come about so, here therefore there is no longer much effort of

opportunity to distinguish yourself by features so this is the period when no cost is their primary strategy so operational excellence which leads to low cost. So here it is product leadership and here it is the operational excellence. Whereas this stage the market is saturated, you may have to discover niche market at that stage so the focus strategy.

Which Michael Kortal talked about are or here we can say focus on individual consumer or customer intimacy. So, the strategy goes from product leadership to operational excellence to customer focus and this customer intimacy oriented strategy. So, the marketing strategy emphasis will change even organizational strategy as you rightly pointed out that functional strategies will evolve as the product evolves.

So, we will talk about all these specific adaptation in the market strategy over the difference stages in couple of for the slides in the session that we continue next. So, when will you talk about product life cycle. However, this concept can use to analysis a product category as well as you can see can be applied for a product form it can be applied for product as well as a brand.

(Refer Slide Time: 14:19)



So, you can see the product category another example could be IC engine base automotive. A product form could be four-wheeler, a product could be a car probably a SUV or probably be a other form of it, Sedan then a brand could be a Maruti, you can talk about BMW Volkswagen or any of the brand. So, you can see that the product life cycle concept can be applied across all these for

This is also a very good example to the clear given that the categories fabric wash then comes washing detergent then comes liquid detergents and then comes Godrej Ezee. So, this inner nature of a particular new product that means a new product has to be thought of this canvas. These are the dimensions on which it must be taught about it creates a basically a new products category supportably a new product comes out which creates a different a way of washing your clothes.

Then probably cleaning your cloth supposedly, you come out with a new technological advancement wear clothes are given a different kind of treatment from the light or heat or something and that sanitizes the cloth. So, it opens up a basically a new product category absolutely. So, the so the NPD the new product development, if it is this stage the marketing strategy will be very radical very new. So, whereas here it is just another rant within this liquid detergent category so again here the marketing strategy will have to be a little different.

Now, another point I will I saw that fashion and fat may be I talk about it these are basically special type of product lifecycle things like fashion and fat like which is very sharp rise and the sharp death sharp probably increment in the sales and then suddenly in comes down also like summer fashion summer fashion it is go out of fashion as well as the summer is over. So, there will be a sharp rise and it will be a it will disappear when winter come and with fashion here is a thing like fashion go, fashion is a sort of cyclical it will go back in and it will again it come so thus it is a cyclic in nature okay.

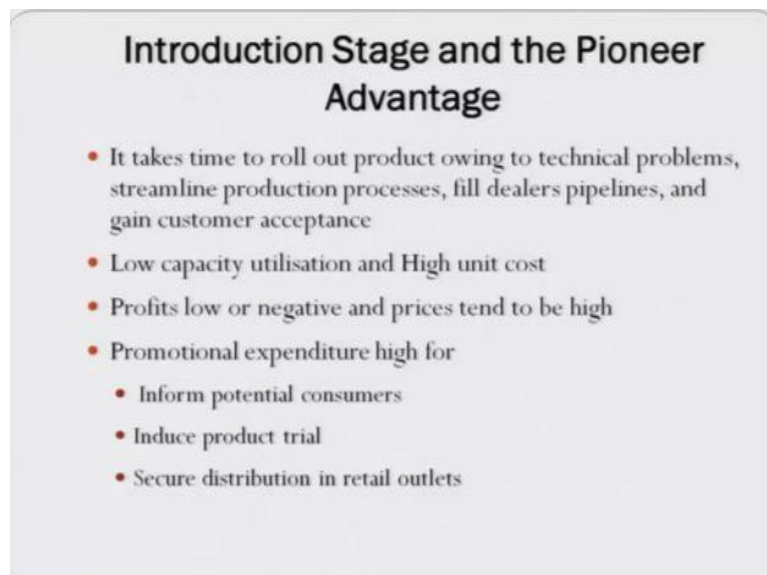
(Refer Slide Time: 16:44)



Now first thing that first stage comes in this product life this introduction stage now in the introduction stage you have basically two choices in the sense like whether you are pioneer or you are a follower. Now what are the advantages of being a pioneer or what are the advantages of being a follower or the early leader actually the professor (()) (17:10) called them as the early leaders actually in the market.

So, there are basically advantages and disadvantages of being pioneer or the first to the market and there are advantages and disadvantages to being a follower or basically early leaders in the market also. Now you will see that there is no conclusive evidence that which strategy is better but we can characterize roughly like

(Refer Slide Time: 17:47)



Which of these two is better off now in terms of the introduction stage first we need to understand what happens inside the introduction stage so it takes time basically to roll out the product in the market and you can see that when the product comes in to the market it initially has some of the technical problems any new product that comes out generally you will observe that there are problems we have discussed the case of starter NANO.

When it came in Marco Polo buses when they came in the Indian market when they had the issues technical problems and they had a repercussion on the brand image of the organization. As well as the sales are the future of the product also. Then you will also see that generally new products comes out in new facilities or basically put up for the creating that production of those new product and then you as you can understand that initial days of the initial time of

this production or the operation is not a streamline it takes a bit of time for the operations people to get those production processes streamline.

So, you will also see that variability and quality of the product. Correct at the initial stages but it's very basically a common thing that over a period of the time all these problems are gets sorted out sorted out. And then the next thing is that fill dealers pipeline is the another thing is that if you if you launching the product nationwide or probably to a bigger region. You will take some time to fill that dealer's pipeline and you have to ensure that when you when you say that product has been launch the costumer comes to the place to purchase that product.

It must to be available the customer otherwise a marketing effort will boomerang it will boomerang because if the product faces at the trial stage. Then it is a big disaster for the company. And the last thing that hey that characterizes which is very important probably the most important is a game from the costumer expectance. So, costumers basically slowly basically observe or come to notice about the product and then they try it and then the mark they accept it.

And very importantly the later stage is what become the most important thing is that they start taking about it which you have talked about that one of the important criteria that whether, the costumer will talk about the new product idea to other costumer exactly which will cause repeat purchase, the first purchases as well as a recommendation based purchase for others for others.

So, that basically helps to product to proceed or to diffuse in the market so another thing which you will see in this introduction stage is it is characterize by the low capacity utilization high unit costs so what happen is when we basically come out with product we put a facility anywhere for production we will see that the facilities are put to the maximum possible market potentials. So, if basically plant has been put for capacity of five thousand tones for a washing detergent. But you will see that as soon as that product comes the plant will not be running at its full capacity.

And what happens in that cases your if total fixed cost is there okay and now this fix cost has to get divided over the unit cost since sales in the initial stages of the I mean that introduction

stages yes ramping up ramping up so your unit fix cost is on higher side and because of that the total cost is also in higher side and because of this you see that overall unit I mean this stage is characterize by high unit cost.

And this is the important point that we can see that in pricing if we actually fix our pricing based on this higher unit fixed cost then we may actually artificially in fleet of rise we may actually fail. So, it is very important to actually see what will be the longer term steady state volume and based on that one should actually estimate the this unit fix cost a little bit what you are or over head location etc. What you are talking about is I have kept a little bit of discussion in product lifecycle management.

About skimming verses penetration is starting you so that we will discuss in next session very good and the last point. Which is very important in this introduction stage is that you will see that in the introduction stage company has to generally observe that company have to expended the lot of money in the promotional strategy implementation of its promotional strategy because you have to ensure that the costumer notice about the product.

And that forming different potential requires a lot of efforts from company side and may require a lot of financial support also in terms of the money you putting advertising. You put in two different vehicles of the communication strategy and another thing that could basically ask for the probably demand or resource is that how you induce trial so sometimes you use trial by giving small Shashi to free trial such as to the costumer or probably you create a different way or you buy a very shallow brand or major brand and then you give your new product as on add on.

Lucky if you buy the mosquito repellent or then you get a new flavor of soap is an extra which is actually a way to promote that new soap brand and to try by taking that advantages of another product with Godrej has which is say for example all out so you kind of leverage a new soap brand with existing strong brand with this stream and this will also require resources obviously, this that is this a product trial and we have discussed already a little while back this all issue of trail ability and so on and you will talk about it again.

But the most important point here is that to remember a new product we need this push pull that means there has to be pull created through promotion and I the product manufacture and

then only if there is a pull then only the distribution the retail outlets or you start pushing it or if you have to push from your side you have to give distributors some extra margin yes so if you are securing the shell space and distribution level.

Actually, you are buying that shell space correct so that is actually the additional cost resources yes so and an entrepreneurial company their marketing in this case it will be little different from a large organization they may not have enough resources to do this and today they have the advantage they can take a make use of social media they can create the bus at a much lower cost then it use to take earlier.

I think the emergences of e commerce is also given lot of space to these a new start up are the entrepreneurial effort correct that because they reach the market at a much lower cost much lower cost so this is challenge of distribution in India has been slightly I mean you can say some areas it has come down is not as it was earlier.

So, I will stop this session here when will meet in next session we will talk about some of the strategic choices or some of the thing which have present in the in front of the marketers and then we will also talk about the later stages or the other stages of the product lifecycle management for now Thank you very much, Thank you!