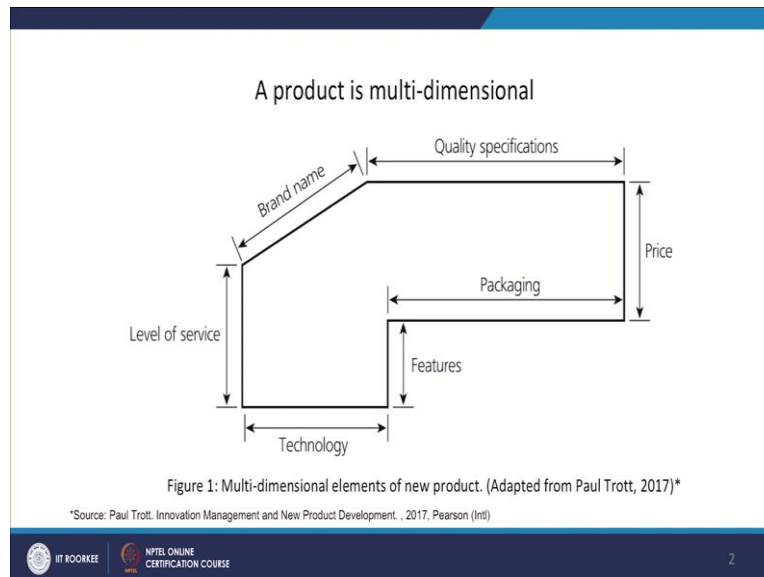**Product and Brand Management**
Professor Vinay Sharma
Department of Management Studies
Indian Institute of Technology, Roorkee
Lecture: 34
New Product Development

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Figure 1: Multi-dimensional elements of new product. (Adapted from Paul Trott, 2017)*
*Source: Paul Trott. Innovation Management and New Product Development. , 2017, Pearson (Intl)
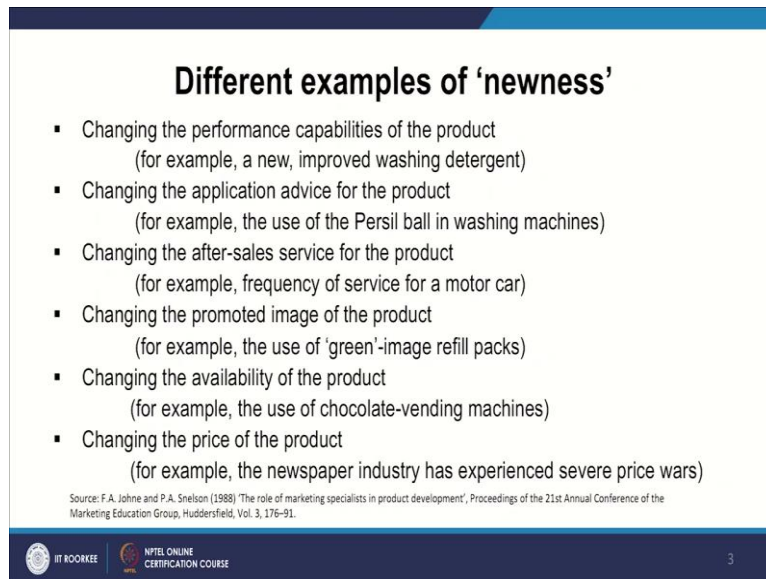
Welcome back to New Product Development. We were discussing this structure and we talked about very innovative examples in the energy domain, wherein renewable energy is the focus area. Those examples, though very large, are not still become very common, probably, because the other modes of energy have been long accepted and have a strong foothold amongst the processes engaged for organizations serving consumers.

But, looking at the sustainability measures, those methods or renewable energy modes would take up a larger shape and would be acceptable at a larger level. Now, I will be taking you further into the domain of new product development, and I want your imagination to flare up and wish for you to think of what else can be done.

Although, I have mentioned earlier as well that there are a few products, which probably would not change, I would not say never change, but probably would not change. For example, pencils, and matchsticks. I mentioned this earlier, that there are methods which have been involved and engaged for positioning these products in a newer form in a newer way, should I say, and I will not take you back into that discussion. Let us focus on new product development and the elements related to new product development.

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There are different examples of newness. Changing the performance capabilities of the product, for example, in a new improved washing detergent, the performance capability is the mainstay. Changing the application advice for the product, for example, the use of Persil ball in washing machines. Changing the after-sale service of the product, changing the promoted image of the product, for example, the use of green image refill packs, changing the availability of the product and changing the price of the product.

Although this newness perspective is actually surrounded by the major piece as far as marketing mix goes, then we have already talked about the importance of processes involved, the importance of material involved and so on. We talked about Jaipur foot and that discussion can be coupled with the discussion that we are going through at this moment.

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A new product has different interpretations of being called new. For example, let us take a new product called A. A snack manufacturer introduces a new larger pack size for its best-selling snack. Consumer research for the company revealed that a family-size pack would generate additional sales without cannibalizing existing sales of the standard pack size. And again, here consumer insight is one of the important reasons for the organization to take up that step. We know by this time that, this is one of the reasons.

For another new product called B. An electronics company introduces a new miniature compact disc player. Though CD players have gone by now, the company has further developed its existing or that time existing disk product and was able to offer such a light smaller version. So, that was the kind of change they brought in before CDs went on to change forever into a different kind of a mode. Today we have downloadable music and we all are enjoying that.

So, then another scenario, wherein a new product C, a pharmaceutical company used a new prescription drug for ulcer treatment or you may have just named it ulcer treatment because it is commonly known, otherwise you can put up any ailment or disease here. Following 8 years or let us say 'n' number of years in laboratory research, and a few years of clinical trials, the company received approvals from the government's medical authorities to launch its major drug. The point is that several kinds of aspects of a product being interpreted as new have been talked about, through and through in literature. And it is where I want your attention to be focused on. The new aspect of product development.

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- The three products are all new in that they did not exist before.
- However, many would argue, especially technologists, that Product A does not contain any new technology.
- Similarly, Product B does not contain any new technology although its configuration may be new.
- Product C contains a new patented chemical formulation; hence this is the only truly new product.
- Marketers would, however, contend that all three products are new simply because they did not previously exist.
- Moreover, **meeting the needs of the customer and offering products that are wanted is more important than whether a product represents a scientific breakthrough.**

The three products which we discussed are all new, in that they did not exist before. However, many would argue especially technologists that Product A does not contain any new technology. Similarly, Product B does not contain any new technology, although its configuration may be new. Product C contains a new patented chemical formulation. Hence, this is the only truly new product and this can be argued upon. Marketers would, however, contend that all three products are new simply because they did not previously exist, that is from the user's perspective.

Moreover, meeting the needs of customers and offering products that are wanted is more important than whether a product represents a scientific breakthrough or not. If it represents, it is much better, but again, if it does not, the point is customer takes it as new. Now, the message is very clear that anything which we are focusing upon as a new product should be seen as new by the customer. And that is the most important element. That is why I talked about Bahubali.

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When we initiated this discussion, there was a classification to new products, new to the world products, I briefly mentioned this thing. They are the first of their kind and create a new market. They are inventions that usually contain a significant development in technology such as new discoveries or development, as far as new technology or existing technology goes in a very different way leading to revolutionary newer designs. The Internet is one of those major examples. There are several kinds of antibiotics. In today's world when we are hopefully at the end of the COVID-19 experience, vaccine development is again a major thing in terms of new product development.

New product lines; although not new to the marketplace, these products are new to the particular company. They provide an opportunity for the company to enter an established market for the first time. For example, Alcatel, Samsung and Sony Ericsson all entered the cell phone market to compete with market leaders Nokia and Motorola, originators of the product and 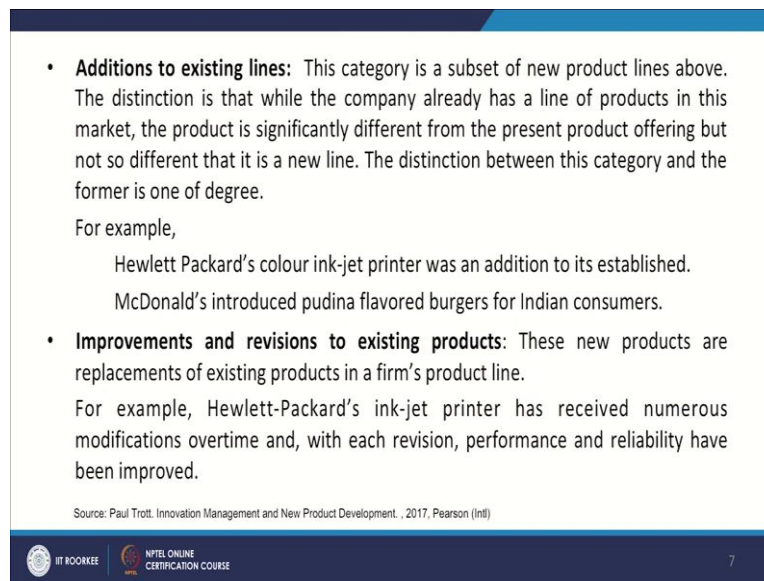this example is being referred to with the context of a particular period. This is not a contemporary example, and is taken from a particular kind of text. There was a time when Nokia and Motorola were doing very well and they were market leaders. So, I have just taken it verbatim from the text. But, you can replace these names with contemporary market leaders like Apple and Samsung and so, so many other organizations and then there would be other organizations, which are entering into the market and following the spree as far as the structure goes.

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- **Additions to existing lines:** This category is a subset of new product lines above. The distinction is that while the company already has a line of products in this market, the product is significantly different from the present product offering but not so different that it is a new line. The distinction between this category and the former is one of degree.

  For example,

  Hewlett Packard's colour ink-jet printer was an addition to its established.

  McDonald's introduced pudina flavored burgers for Indian consumers.

- **Improvements and revisions to existing products**: These new products are replacements of existing products in a firm's product line.

  For example, Hewlett-Packard's ink-jet printer has received numerous modifications overtime and, with each revision, performance and reliability have been improved.
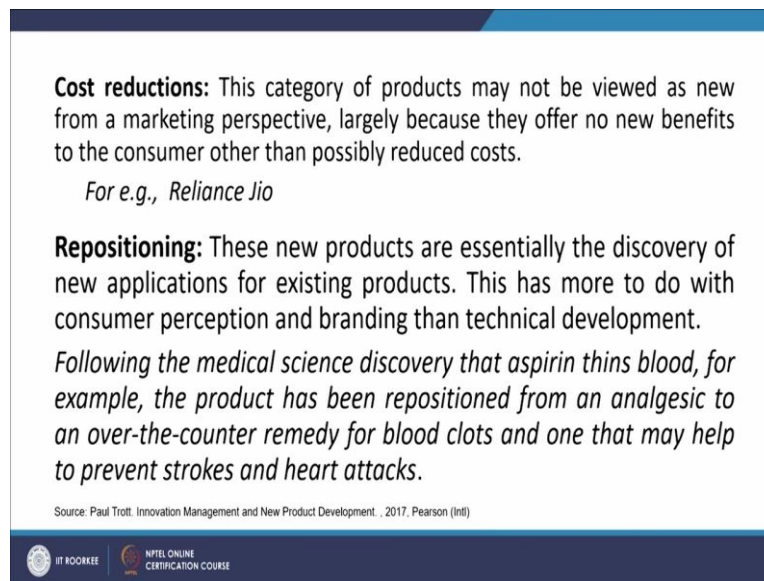
Source: Paul Trott. Innovation Management and New Product Development. , 2017, Pearson (Intl)

Additions to the existing lines; now, this category is a subset of new product lines. The distinction is that while the company already has a line of products in this market, in any market for that matter, the product is significantly different from the present product offering but not so different.

There can be several examples like McDonald's introducing pudina flavoured burgers for Indian consumers. McDonald's has been very innovative and one of my favourite organizations and I like Dunkin donuts as well. So, once you go to this Dunkin Donuts shop and you find so many beautiful coloured Dunkin Donuts all through there you find several examples of innovation and new product development. Just go there today and enjoy and see for yourself. What I am talking about is improvements and revisions to existing products, these new products are replacements for existing products in a firm's product line.

Then there is the element of cost reductions. Now, this category of products may not be viewed as new from a marketing perspective largely because they offer no new benefits to the consumer other than possibly reducing the cost. But again, there is an element of newness to this. Reliance Jio wrote history in this domain and that, there is an aspect of newness to the procedure. I wish you to remember this fact when we are talking of a product. It is not a standalone aspect, standalone concept, or standalone entity. It is related to the processes, the services, to the material and I have been talking about this a lot. So, Reliance Jio though a telecom service provider brought in a new marketing proposition and that is how the newness came in. That is why so many subscribers got attracted to this organization.

Repositioning again is an aspect of that. Reposition of new products is essentially the discovery of new applications of existing products. This has more to do with consumer perception and branding, than technical development. Following the medical science discovery that aspirin thins blood for example, the product has been re-positioned as an analgesic to an over-the-counter remedy for blood clots and one that may help to prevent strokes and heart attacks. There has been a lot of discussion on aspirin. (Please verify the details with Medical Experts. The statement here is made just for discussion on Marketing and NOT for any Claim or Advice) and this we have taken from Paul Trott's Innovation management and new product development 2017, published by Pearson. You can go to other relevant sites to corroborate further details of this medicine. And this is just an example. There is a disclaimer at this stage, do not take it as a prescription or as a scientific discussion at this stage.

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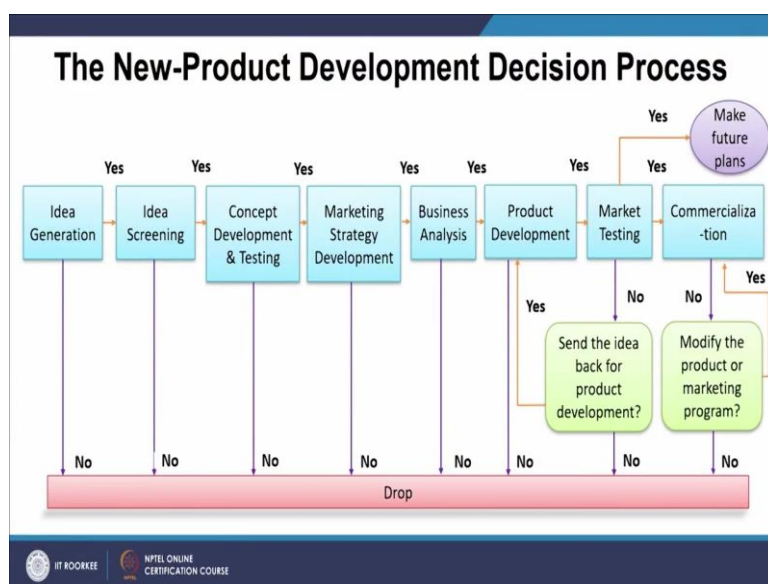
Now, the new product development decision process: Let us look at the blocks. Idea generation takes you towards idea screening which further takes you towards concept development and testing. Then comes in the requirement of marketing strategy and development because, by this stage, you would like to know how I would be able to market this product.

I wonder many times when knowledge about chemical sciences, chemistry and all those related sciences, which are responsible for developing different kinds of adhesives and actually influenced or enabled the development of different kinds of industries which we see in the market. So, when that thing came to that stage, what kind of thought process would have gone into the minds of product managers? They would have definitely thought of those adhesives to be used for industrial purposes and a few other uses.

But if you will look at this product and you look at the Fevicol's campaign (I talked about this in a few of my sessions) as an example or other adhesives, Quick fix for example, you would realize that the same adhesive has now been seen with a different kind of marketing strategy orientation.

And this thought process that we see today, that we practically visualize or is visible in front of us today, emanated long back or would have emanated long back and would have passed through several stages of iterations, development, experimentation and so on. So, the adhesive might be an old kind of product, but it has come a far way in terms of its usage, and

packaging and most of all, the understanding of the customer on how well these things can be used.

Then comes, business analysis. Obviously, when you visualize the market, you visualize the revenue model and then competitors and then several other things, basically. It is an interesting thing. Talking of adhesives, there was a campaign by a company wherein they showed several uses of a particular product, wherein, for example, the shoe gets disrupted, the adhesive comes to the fore, the teacup breaks, adhesive comes to your rescue, the pen breaks the adhesive comes to your rescue, the door handle breaks the adhesive comes to your rescue and so on. Now, these are different kinds of elements, which would have been visualized by product managers. But one very important thing is they were observing consumers. They were realizing that consumers are thinking of simpler solutions for getting their things intact without any major weight of cost.

If a door handle breaks somehow and you have a powerful adhesive which can stick it back, you can avoid so much of maintenance cost. I do not know if there might be a degree of success experienced by the consumers, but definitely, it is working for many.

Then comes the market testing and which takes you towards commercialization, then send the idea back for product development, if market testing does not works. If it works, then you take to the commercialization aspect.

If it works good, then you take it for future plans. And, if somehow commercialization does not works, then you modify the product or marketing program itself. That is probably, because the product is not right, or the positioning is not right or many times communication is not right. Throughout my sessions, I have been avoiding talking about product failures. This time also, I would not specifically mention product failures. But, I want you to just think of which products could not do well, despite being designed and produced very well. So, let us slightly elaborate upon these stages with a perspective.

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Some marketing experts believe, that the greatest opportunities and highest leverage with new products are found by uncovering the best possible set of unmet customer needs or technological innovation. The source idea can be generated from interacting with employees, interacting with outsiders, studying competitors, adopting creativity techniques, and so on. Creativity techniques are related to attribute listing, new contests, reverse assumption analysis, morphological analysis, mind mapping and so on.
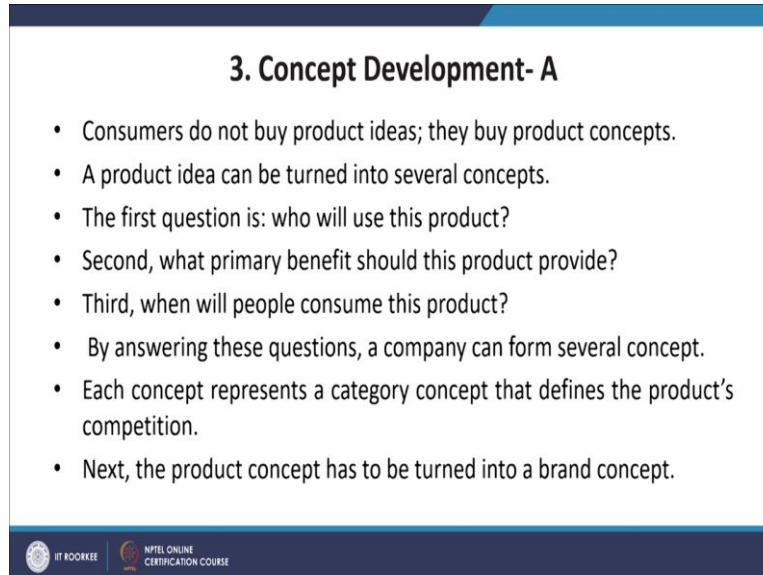
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Then, idea screening, wherein, the purpose of screening is to drop poor ideas as early as possible. The rationale is that product development cost rises substantially with each successive development stage and you just cannot afford failure every time. Most companies

require new product ideas to be described in a standard form that can be reviewed by new product committees and so on.

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3. Concept Development- A

- Consumers do not buy product ideas; they buy product concepts.
- A product idea can be turned into several concepts.
- The first question is: who will use this product?
- Second, what primary benefit should this product provide?
- Third, when will people consume this product?
- By answering these questions, a company can form several concept.
- Each concept represents a category concept that defines the product's competition.
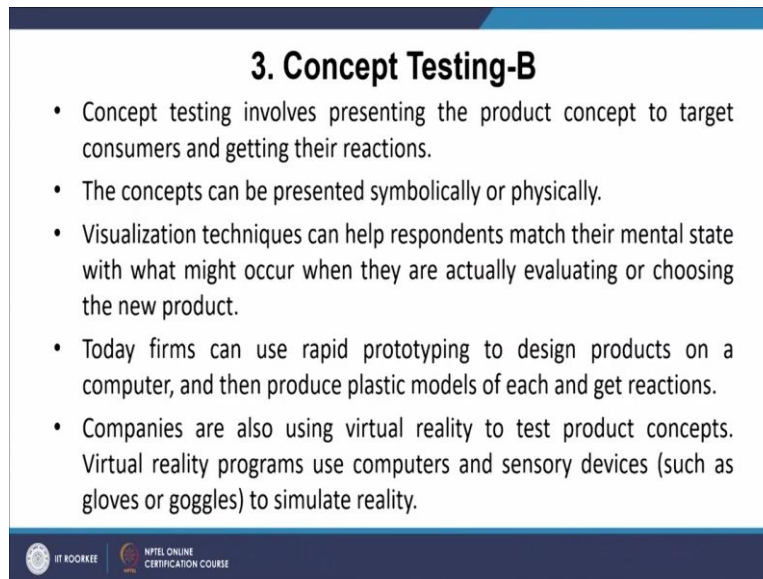- Next, the product concept has to be turned into a brand concept.

Then, comes, concept development. Consumers do not buy product ideas, they buy product concepts. This is the second time I am repeating this line in front of you because this holds a very important message. Consumers do not buy product ideas, they buy product concepts, they buy the usage, they buy the benefit actually.

A product idea can be turned into several concepts. The first question is who will use this product? Second, what primary benefit should this product provide? Third, when will people consume this product? By answering these questions, a company can form several concepts. Each concept represents a category concept that defines the product's competition.

Next, the product concept has to be turned into a brand concept. We will just be traversing into the discussion on brand after one more session after this and then the story will take you towards how this particular thing which, we are discussing at this moment emanates into structuring brands. How did new products become brands over time? How Apple became a brand, how Lenskart became a brand, how is Patanjali a brand, how DantKanti is a brand, how Nike is a brand and so on?
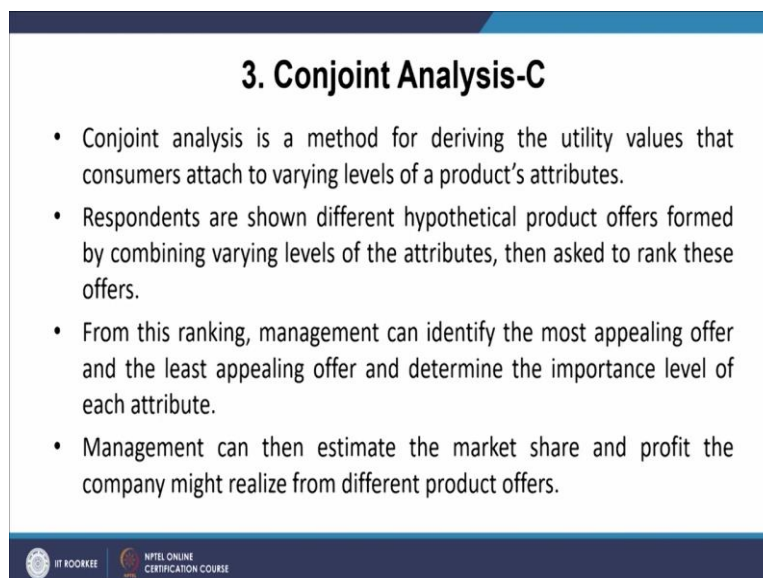
Then, concept testing-B involves presenting the product concept to target consumers and getting their reactions. The concepts can be presented symbolically or physically. Visualization techniques can help respondents match their mental state with what might occur when they are actually evaluating or choosing the new product. Companies are also using virtual reality to test product concepts. Virtual reality program use computers in sensory devices and so on.

Then, there is an element of conjoint analysis. I briefly mentioned this earlier, but, here I will slightly elaborate on this. Conjoint analysis is a method for deriving the utility values that consumers attach to varying levels of a product's attributes. Respondents are shown different

hypothetical product offers formed by combining varying levels of attributes and then asked to rank these offers. From this ranking, the organization can identify the most appealing offer and the least appealing offer and determine the importance of the level of each attribute, a comparison more or less.
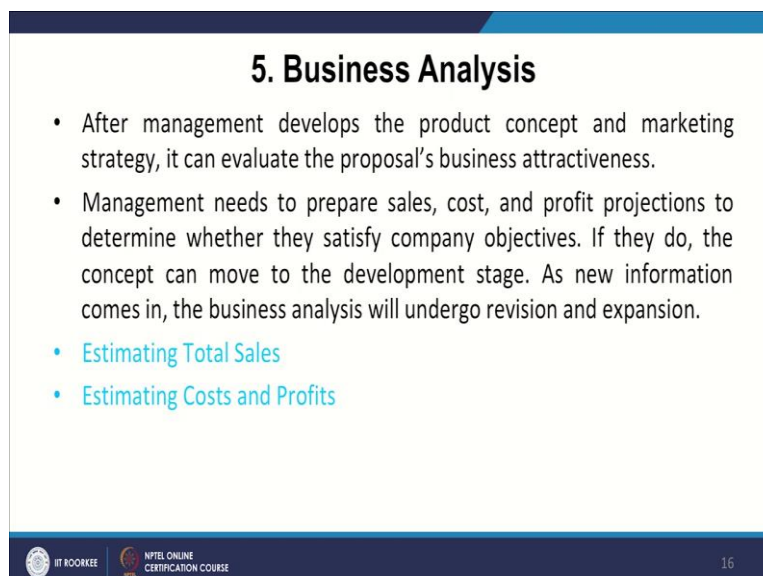
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Market strategy development we have talked about at length. So, I will not be drawing your attention once more to the specific details. Then, there is business sales analysis related to estimating total sales or visualizing total sales. And there is a cost and profit analysis based on the revenue model. So, the revenue model is an important thing when we are talking about foreseen sales and cost and profits.

6. Product Development

- Up to now, the product has existed only as a word description, a drawing, or a prototype.
- This next step involves a jump in investment that dwarfs the costs incurred in the earlier stages.
- At this stage the company will determine whether the product idea can be translated into a technically and commercially feasible product.
- If it cannot, the accumulated project cost will be lost except for any useful information gained in the process.

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7. Market Testing

- After management is satisfied with functional and psychological performance, the product is ready to be dressed up with a brand name and packaging and go into a market test.
- Market testing can yield valuable information about buyers, dealers, marketing program effectiveness, and market potential.
- The main issues are: how much market testing should be done, and what kind(s)?
- Market testing is influenced by-
  - Investment cost and risk
  - Time pressure and research cost

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Up till now, the product has existed only as a description, a drawing, a prototype, or a structure, which you have been working on. Now, this product development stage involves the structuring of everything in practical terms, as a commercially feasible product.

Then the market testing comes in and it is one of the most important stages. The most important element of market testing is on whom you are testing your product actually. If you are not reaching the right prospective customer for testing your product, it might not work. Because, many times we have found organizations and managers testing their products on people who are easily available, a convenience-based interaction, but, that is not the right thing. Field-based testing (and I have mentioned about this earlier as well) is one of the most important elements.

Commercialization: Points to consider from a commercialization perspective are our timing, geographic element, target market prospects that we have talked about and then introduction-based marketing strategy or introductory market strategy. Timing is very important. And, because we initiated this discussion from a movie, you would remember that movie producers are quite specific as far as the launch time of that movie. They imagine almost everything, like occasions should be auspicious, that is one part and most of them and most of us believe. But the point is that they are always having an eye on what kind of competitive entertainment avenues are coming their viewer's way. What kind of other movies are going to be launched in due course of time? So, they are monitoring that as well. Then they monitor the levels of availability of the audience. Are they free in large numbers to go in that particular week as far as movie watching goes? If you launch it during vacations, that is really feasible.

Therein you would get a larger audience but then there is another element during vacations people usually go out of the cities. So, that is again, an element. So, should it be a weekend, should it be a Friday and should it be a holiday season, there are several concerns. So, timing, where and how? That is again an important element.

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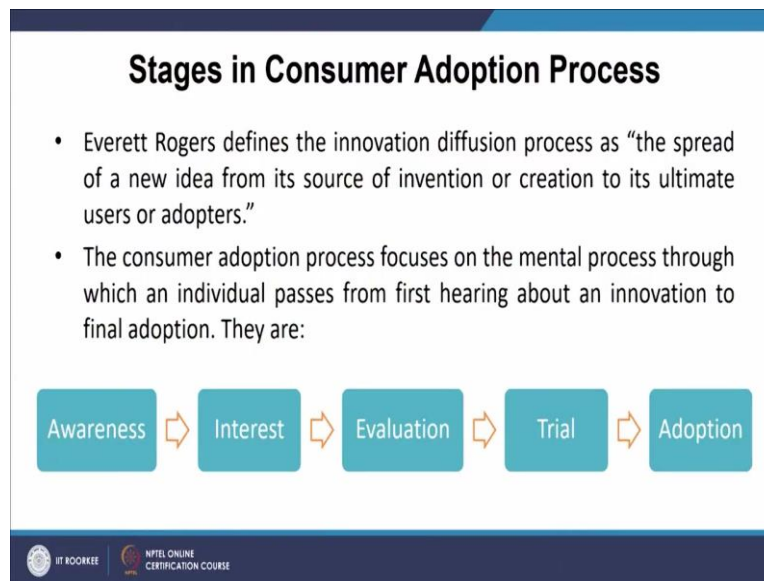
Then there are stages in the consumer adoption process. Up till now, we are talking about taking an idea to the commercialization stage. But the most important thing is would this idea be adopted by the consumer and I will be talking about this element very strongly, when I would be taking you to my last discussion in this section, wherein, I would be focusing on reflexivity, co-creation, new product development, innovation and almost all the elements together.

Because adoption is a very important thing and believe me, whichever experiments we have done in due course of time practically and in labs on the field, and several projects, which we have gone through, we have realized that however useful the product is, however beneficial the product is, and however well positioned the product is that is even if everything is right for the product, it is not necessary that consumers would leave the inertia of using a particular product for that particular need and coming to you.

So, it is not necessary that consumers would immediately come to you. So, consumer adoption has stages. Everett Rogers defines the innovation diffusion process as the spread of a new idea from its source of invention or creation to its ultimate users or adopters. The consumer adoption process focuses on the mental process through which an individual passes from first hearing about an innovation to final adoption.

Now, that is related to awareness, interest, evaluation, trial, and adoption, I have talked about this earlier as well. It seems very simple, but the point is, the awareness you are generating through innovative integrated marketing communication programs with beautiful taglines,

wonderful advertisements going all in for television campaigns or let us say even word of mouth, kind of publicity or let us say public relations or sales force, which is very aggressive, whichever way.

But the point is, even after getting aware, does the consumer get interested? That is why; we should recall Bahubali at this moment or any other examples, which we have discussed. Then, if the customer gets interested then how is he or she evaluates? One of my favourite examples, which I have been using time and again is the launch of several kinds of new courses. For example, in today's professional world, when almost all the courses are directed towards professional ability development, still several new courses, which see the day of the light, do not get that kind of a response. It is not always the brand power of institutions, which works. It is also how well a prospective student is evaluating that course against several other options she has.

Although, I should remind you that I never take students as consumers or customers. I take them as products, which would be making difference to the industry later on. But just for the sake of an example, I have quoted this with a user choice-based kind of perspective. So, there is an evaluative criterion that which consumer has in mind. In the smallest of the things like mosquito repellents, why would consumers choose one and why they will choose another? Many times you do so much analysis and still, we do not find the appropriate reasons, actually. And one of my favourite examples is how Masala dosa or dosa, for that matter became such a well-adopted product around the world. Sometimes, I wonder, actually, I do not know.

But the point is, it was evaluated well and that they got aware. They generated a particular kind of an interest and that interest somehow was generated in them and they evaluated it across several products. They tried it, they adopted it. There are few products in food category, especially when probably I feel that the whole of the world has tried them. Masala dosa is one of those. And noodles definitely, I do not think that there is anyone on this earth who has never consumed noodles. I may be wrong with, some percentage or to a degree, and forgive me for that. So, this is all about new product development.

Keep thinking, keep fitting in several kinds of examples, which I have discussed with you, or search for several other examples, which you may add to this kind of a discussion. Write back to me ask several questions, I will try to answer as many as I can. I will be seeing you for a discussion on the correlation of several interesting terms which we have gone through, and

several concepts which we have built up till now. And I will be seeing you once again, very soon. Till then. Goodbye.