

BUSINESS MARKETING - TECHNOLOGY FOCUS
Prof. Jayanta Chatterjee
Department of Management
Indian Institute of Technology, Kanpur

Lecture 08: Customer Driven Innovation, New Product Management

Hello, I am Jayanta Chatterjee from IIT Kanpur and welcome to our next session on industrial marketing, B2B marketing, business marketing or technical marketing terms that we are using synonymously or almost parallelly to mean almost the same domain. And we are discussing now the differences, some particular aspects about marketing of innovation or marketing of new products, incrementally new or radically new.

Lead Users

New insights from gathering and using information
in new ways

Cross-functional in nature

Collaboration with innovative customers

Requires corporate support, skilled teams, time.

Towards the end of the last session, I was talking about QFD or quality function deployment. We arrived at this topic after we finished our discussion on lead users.

QFD: Multistage Process

1. Collect the “voice of the customer”

- Identify customer needs regarding desired product benefits via customer visits or empathic design
- Weight or prioritize desired benefits/attributes

2. Collect customer perceptions of competitive products

- Identify gaps or opportunities in the market

So, QFD is a process by which we collect the voice of the customer or an aggregation of the inputs from different customers and QFD is a process where we convert that input of the voice of the customer into the design parameters or we execute the final form and attributes of the product derived from the customer inputs. So, collecting the voice of the customer means identifying the customer needs regarding desired product benefits and that input is collected via customer visits or empathic design that we discussed in the last session and then we assign different weights or prioritize the desired benefits and attributes based on the gross inputs that we receive in the first run. And we also collect customer perceptions about competitive products and the gap between our offering and competitive offerings.

QFD: Multistage Process

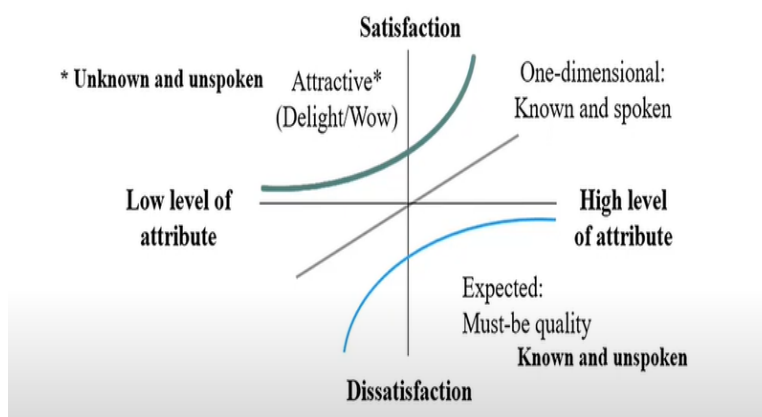
3. Transform data into design requirements:

- “Customer requirements deployment”- identify product attributes that will meet customer needs
- “House of quality”- a planning approach that links customer requirements, design parameters and competitive data.

Then we transform that data into design requirements. So customer requirement deployment, identify product attributes that will meet the customer needs. And finally, the aggregation of what the customer needs, what the customer articulates or what customer needs are observed forms the what axis or the vertical axis of our integration. Under the horizontal axis, we put how.

That means we put how those customer requirements will be met by various design attributes, product properties. So the two together constitute the house of quality where actually also we do an analysis with respect to competitions, competitor products.

QFD—Using the Kano Concept



And, we also constitute this what the customer needs by using the Kano concept and we discussed in the last session this Kano concept in some detail.

Must-be quality attributes

- Must be present for customer to be satisfied
- Customers implicitly expect it to be present, and therefore do not “voice” it as a need
- Absence of attribute associated with extreme dissatisfaction
- Increasing level of the attribute does not increase satisfaction
- Essential to product functionality

So, as we discussed in the Kano concept, we have this must be quality attributes. These are attributes that must be present for the customer to be satisfied. Customers implicitly expect these properties, these attributes to be present and therefore do not voice this as a need because this is almost given. That means if you are actually designing a cup, then it is almost given that there will be a handle usually. Or if we are designing a door, then it is almost given that there will be some kind of a latching mechanism, knobs and so on. And so absence of attributes associated with extreme dissatisfaction. So, for example, if you have a door in which there is no handle, there is no knob, then that will actually create some kind of consumer dissonance.

But as we discussed in the last session, if you provide five knobs instead of one knob, then those additional four knobs will be a waste of resource because that will not bring any additional customer satisfaction. So that's why we say the increasing level or additional level of attributes does not increase the customer satisfaction. And this must be quality attributes are essential to product functionality.

QFD—Using the Kano Concept

- ▶ Attractive quality attributes
 - Exhibit an exponential relationship with satisfaction
 - Because it is not expected (or voiced), lack of this attribute does not lead to dissatisfaction
 - “Wow” factor
 - Discovered through empathic design and lead users

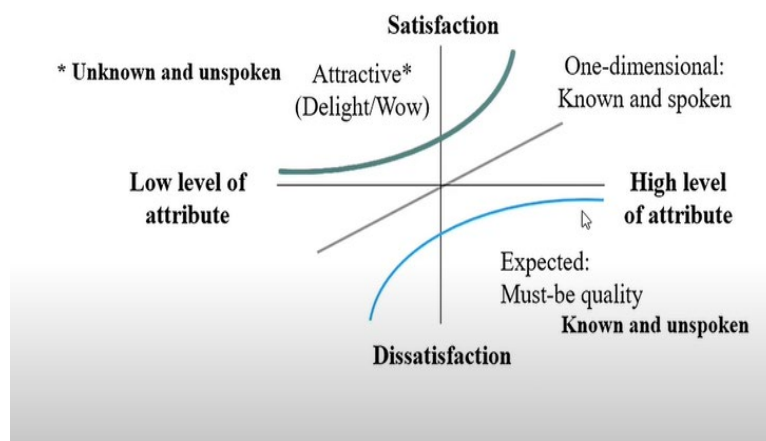
Then the most interesting part is the attractive quality attributes. These exhibit an exponential relationship with satisfaction because these are not expected or voiced. Lack of this attribute does not lead to dissatisfaction. Customer usually will live with it. For example, therefore, if we have a latch, which is mainly for locking, and we turn the knob to unlock the door, but we need a separate padlock arrangement to unlock, make it make lock the door. So, the knob is usually used to open or close but locking is done by a separate padlocking arrangement or some other lock.

So, the customer may in the past the customer has lived with this kind of a design that means one functionality for opening or closing and another functionality for locking but if you can integrate the lock into the handle like as we know there are many such locks that we use the originally called the EL lock but now of course there are many manufacturers where there is a button on the inside which if you push and then draw the door then it will so the button is on the handle.

And if you push the button and then close the door, then the door will be automatically locked. When you want to open it from outside again, then you have to use a key arrangement. So, here actually you see we have integrated both functions in one particular device. This kind of provision which the customer earlier, the absence of it customer accepted. But now if you provide this superior design, then it will attract the customer.

So, therefore, this kind of attributes are not expected. Therefore, the customer doesn't voice. But lack of this attribute doesn't lead to any dissatisfaction. But addition of this enhanced type of design will lead to customer delight. So these are often called the wow factors. So these wow factors are also discovered through the empathic design with, through the interactions with the lead users.

QFD—Using the Kano Concept



And in the diagram that we saw of the Kano diagram, so we have, these are the must-have attributes and or we call them that expected, customer expects it, whereas these customers may not expect, customers may not even voice, but through special type, specially designed questionnaires, we can uncover these factors where the customer is living with it, but obviously if you come up with a superior design, then it will wow the customer or delight the customer. And in between, we have this one-dimensional, which kind of more the merrier. These are also known and spoken about.

Prototype Testing

Prototype: a model of the ultimate (final) product/service

- used to illustrate the product idea in order to test customer reaction to it

First: test the prototype against the technical design specifications

Second: (if it meets specifications) customers evaluate the prototype

These are design attributes like speed or weight or price and so on. So, once we have these must-have attractive and the one-dimensional things identified, then it will help us to construct the QFD where we will be able to translate these requirements, customer's requirements, customer's voice into design parameters. And based on that, we will be able to build some kind of a prototype. The prototype is a model of the ultimate final product or service.

It is used to illustrate the product idea in order to test the customer reaction to it. Because if you actually just describe or narrate a product and its design parameters, many customers will not be able to give you a proper feedback. But if you provide a prototype, then the touch and feel of the prototype will illuminate in the customer's mind many issues, reactions, likes and dislikes, which will be the valuable inputs for the next stage of the design evolution.

So, in the initial stage, we will test the prototype against the technical design specification. Then if the prototype meets the design specification, then the customer will evaluate the prototype and the reactions based on their touch and feel will give us valuable insights into further improvements or creating the next version.

So, the prototype will be close to what we call the minimum viable product. But then we will be taking the product through multiple stages of improvement to come up with the final form, final bundle of values.

Prototype Testing

Information acceleration technique: virtual representation of a new product

- More vivid and realistic than concept descriptions
- Less expensive than actual prototypes

Prototype testing actually accelerates the customer's feedback process because it provides a more vivid and realistic depiction of the product and there are two types of prototypes so there may be multiple types of prototypes at the highest level we have the so-called working prototypes where all the electronics and all the mechanical and all the different other form and shape and function things will all work but we may also have what we call static prototype or paper prototype or where we can actually just use construction material or modeling material like foam and like paper and like cardboard and we use you know scissors and glue and the staplers and we give it a shape and then we can take it to the next stage where we can use some metal fabrication some material usage, testing of new material, et cetera, that can be done at that stage.

Prototype Testing

Forces design team to:

- Carefully define target market and core product benefits early in the process
- Plan for entire product line and cannibalization of existing products

The prototype testing forces the design team to carefully define the target market and core product benefits quite early in the process. So this improves the chance of success in the final configuration. Actually, the prototype method can also tell us the superfluous design elements and it can actually help us to trim the product line or improve the economics of the current offerings. And overall, this is a very effective way of coming up with a lean product design that means very functional and we can also use the prototype method to improve the yield at the manufacturing stage.

Customer-Driven Innovation

“Co-creation”, “co-production”, “DIY innovation”, “feedback-influenced design”, “peer production”

Taps collective wisdom of a community

Requires radical rethinking of the innovation process

- R & D → R & We
 - Move away from R & D in the lab
 - Move towards active co-creation with customers
 - Design Thinking
 - Medical Devices—Portable ECG machine

At the concluding session at the concluding part of this session we will be also looking at this whole issue about involving the customer at the early stage and throughout the design development process. These days we often call this approach as co-creation, co-production, do-it-yourself innovation, feedback influence design, peer production. So, there are these different terminologies more or less meaning the same thing is the sole purpose here.

The focus is on involving the customer during the whole sequence of the design process, development process. Sometimes, as opposed to product development, this approach is called customer development or customer feedback influence design process. So it actually taps the collective wisdom of the customer community and in the interaction between customers and designers and other stakeholders, even from the internal organization, can vastly improve the chance of success. Because as we know that most new products in the B2B domain fail. So in B2B particularly this process about involving the customer in the design process is of much value.

So, we are talking about moving away from, you know, very theoretical R&D in the lab and we move towards active co-creation. We move to the actual application field. Often it is called the go-to-market strategy. And some of the very popular methodologies that actually use this customer involvement in the innovation in the design process is also called design thinking. So, for example, there is a great case study on how in India for the need of the rural health centers, rural hospitals, for a low-cost ECG machine, a portable ECG machine was developed by a couple of companies.

And once that was developed and successfully deployed, it used the design, in the design process it involved the doctors operating in the rural hospitals. It involved other health care professionals from the rural or low-cost hospital sector. And it involved also, it observed the customers. But once that product was developed, it was not only useful for the rural hospitals in India, but it soon became a very popular device across the world. Even in the developed market, it had value because it provided a design which was transportable, easily transportable. So, therefore, this portable ECG machine originally

developed for low-cost application in India found many other niche uses across the world including its use in the developed world.

So, today that's a very successful product from companies like GE or Philips or Siemens. The customer driven innovation its increasing prevalence is fueled by economics of product development costs and high failure rates as I was just now discussing that it reduces, it improves the chance of success and also today we are quite convinced about the increasing role of customer in the internal process of the research design development. And it also actually has helped many manufacturers to improve the environmental impact of products.

Customer-Driven Innovation

Customers are willing to “donate” their ideas freely

- Motivated by enhanced reputation and network effects
- Realize low odds of successfully commercializing their own idea

And an interesting part is that when you involve the customer in the design process, then you can actually tap into a reservoir of wisdom and customers will willingly donate their ideas freely. So, it's actually almost free of cost consultancy. And so this, the motivation of the customer to donate their ideas freely will often come from their concept of reputation and also due to the network effect, which we discussed earlier. And also customers will often tell us through this process of involving them that what attributes are superfluous and that will help us to come up with a more lean design.

Paradoxically, technology companies are leading the way in harnessing customer knowledge

Requires competencies in communication, learning and collaborating with customers

And very interestingly, high-tech companies, technology companies or the B2B sector is leading the way in harnessing the customer knowledge. And today, that process is influencing even the B2C domain. So it started in the high-tech B2B field, but today it has actually spread across all kinds of product development processes. Even for packaging of biscuits, this methodology has been used so that there is less breakage at the customer delivery end.

And there are even for development of low end but high volume products like detergents and so on. This process has been very gainfully used by companies like P&G and so on. But the most important part here, I think I stressed it in the earlier sessions, that whole process of market research, estimating the market and involving customers in that process needs skillful communication, needs trust building, needs understanding of the network and relationship, trust-based relationship approaches. And that is the kind of a bedrock on which these kind of design thinking processes are based.

Forecasting in High-Tech Markets

Bass Model

- Forecasting sales of a new technology for which no closely competing alternative is available

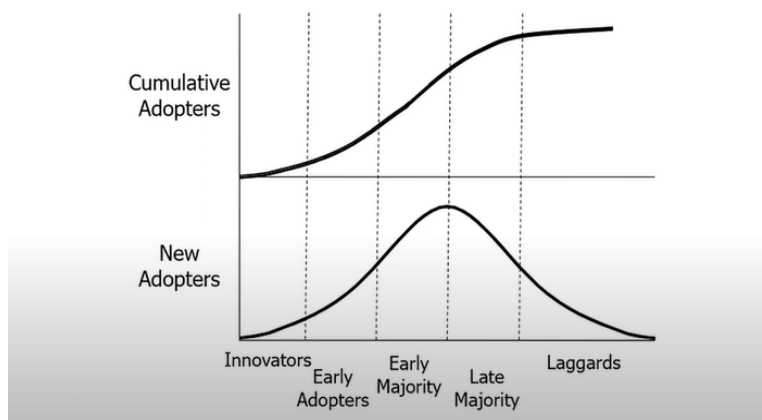
Based on diffusion theory- why innovations spread through markets

Early vs. late adopters

- Mass media (important for early adopters)
- Interpersonal communication (important for later adopters)

I will end this session with a few slides on forecasting in this kind of market, forecasting of innovation, forecasting of new to the world product, forecasting of new to the market products. So, a very famous model that is used in this forecasting is the BASS model where we actually look at the imitation impact. We will discuss it in more detail when we discuss the technology adoption life cycle and those kinds of things. But the diffusion theory, diffusion or the rate of adoption of a new product, how innovation spread through the market can be well understood by looking at this graphical representation.

Forecasting in High-Tech Markets



This is actually a big part of the BASS model. So, actually we say that if you look at this diagram, it shows that this is coming from the technology adoption lifecycle that we have discussed a bit in a previous session. It is similar to the concept of product lifecycle. So we have in the early stage of the cycle, we have innovators, then we have early adopters, then we have the early majority adopters. And then we have the late majority and then we have the laggards and then the decline. So, this is the rise of the product and this is the decline phase of the product in the market.

If we integrate these, then we will get the cumulative adoption line which will be this line but this line also because of the nature of this graph it rises and then it saturates levels out and then it will actually kind of die at the end. Many interesting things that we will discuss about this graph is that this graph is not continuous. There are gaps that develop, products may actually fall in that gap and that is what is called the challenge of crossing the chasm. That is the gap that can develop between this early adopters and early majority. That is the most significant because sometimes products can be very successful with early adopters who are basically technical enthusiasts.

They are looking for the best and the fastest and they are looking for the advanced features. But they are risk takers whereas the early majority are people who are very pragmatic they are often very risk averse they look for solid working reference and they therefore innovation to early adoption is one kind of process and early adoption to early majority. And remember that the gain financial gain from a product line is very very dependent on the area under this graph. Because as you can see, this is the most significant graph up to this stage. So in the growth stage, if you are able to catch the fancy of the early majority, then only you have a successful product.

Otherwise, there may be a brilliant start in the beginning and then there may be a decline or collapse of a new product. And it has happened with many new products. That means they are initially successful with technical enthusiasts, the techno visionaries, but then they don't catch on in the regular market or what we call the ugly majority market. And the managing of the late majority is also a very important part. And therefore, becoming successful in this, the biggest part of the area under this graph, that means which actually

determines heavily this cumulative adoption, depends a lot on the processes that we have already discussed, that customer involvement process, the design thinking process, approaches like the Kano analysis, Kano model, and the QFD process, etc.

Forecasting in High-Tech Markets

Bass model:

- Estimate year one adopters, total adopters
- Coefficient of innovation (p)
- Coefficient of imitation (q)

Does make underlying assumptions that can affect reliability

Despite seeming complexity, widely and easily used by professionals

So, in the BASS model, this graph, we say that actually it depends, the shape and size of this graph, the slope of this graph, all this can be understood by estimating three things. Estimating the year one adopters and the coefficient of innovation and coefficient of imitation. These are things that actually determine the nature of that model, the nature of that graph.

Forecasting in High-Tech Markets

Hazards:

Lack of historical data

Difficult for customers to articulate preferences

Inflated projects from over-enthusiasm

Competition from incumbent technologies

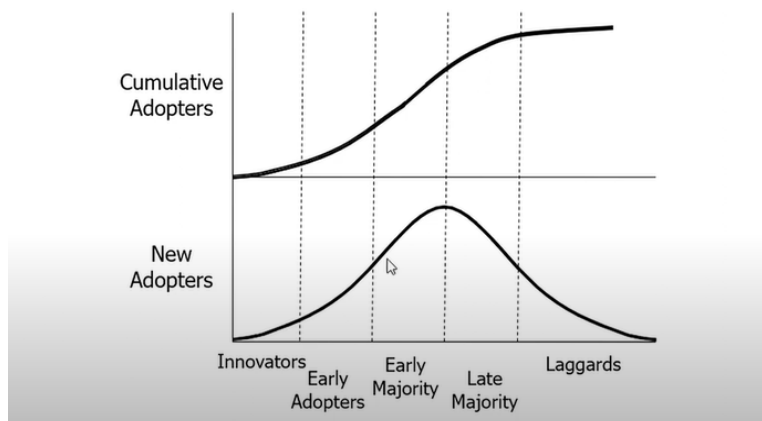
Don't confuse confidence in the forecast with quality of the information

Biases due to personal/organizational desire for success

And it is quite widely used today for forecasting of not only high-tech products, but today that model is used for many – because today even many consumer products have a lot of technical content.

And therefore, even a device like many of these information appliances forecasting the possible sale of a new communication device, entertainment device can be projected using this kind of a model. As you can understand that the challenge in forecasting in this kind of market is the lack of historical data. And it is often very difficult for customers to articulate preferences for something which is not known. They have not experienced, they have not touched or felt even the contour of such a product.

Forecasting in High-Tech Markets



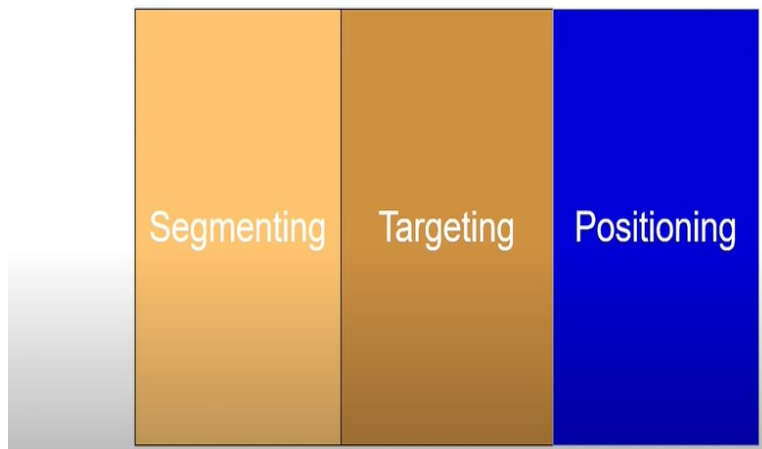
So, many times if you take a projection based on the introductory stage, if you do a projection from this stage, then you may actually go like something like this, but you may actually not understand the saturation aspect.

You may not understand this decline that happens if you are not continuing your input from the marketplace at various stages. So, if you take a survey or inputs from the customer at this stage, you may actually not get the correct perception of the market feedback of this stage. So, you have to make the market intelligence process a kind of a continuous process. So, that kind of brings us to the end of this supplementary session on forecasting and market estimation, particularly for products which are rich with

technology. And we will now continue this line of discussion and we will now look at that how based on this knowledge we can successfully segment the market and position our products and our offerings and the process of targeting our chosen segment.

Hello welcome to our next session on B2B marketing, business marketing, technical marketing, or industrial marketing. I am Jayant Chatterjee from IIT Kanpur.

3 Basic Concepts in B2B Marketing



The topic that I will introduce in today's session is called, in short, STP or in an expanded form, we call segmentation, targeting, and positioning. In this slide, the title is that basic concepts in B2B marketing.

But really speaking, this is a basic concept in all kinds of marketing effort. Be it consumer marketing, be it services marketing, be it marketing for non-profit organizations, not-for-profit organizations, marketing in case of non-government organizations, marketing in cause-related marketing, marketing in the social sector. In all these cases, the segmentation targeting and positioning are very fundamental and very important steps. Because when we look at the market, then the big canvas of the market is often called the total addressable market or TAM1.

So, for example, if we are manufacturing detergents or say if we are manufacturing shampoo then the whole of India will be if we are manufacturing shampoo then whole of

India will be the total addressable market but when we start then we may not attempt to address the whole of that market to start with. We may start in a particular region and then once we have worked out all the modalities and we are successful in the southern region, then we will expand in the other regions of the country.

Similarly, in B2B, suppose we are manufacturing industrial paint. Then the industrial paint can be used, the kind of paint, suppose we are making acid-proof flame-retardant paint with metallic shine, which can be of interest to manufacturers of furniture. which can be of interest to automotive manufacturing companies, which may be of interest to manufacturers of various kinds of consumer durables, like washing machines or refrigerators and so on.

Now, the total addressable market in this case will be all possible application domains put together. In fact, when we start, we may not have the total identification of all the possible usages in the B2B domain for a product like industrial paint. So we may segment the market and we may say that we will attempt to penetrate first the most significant market for our product which will be say automotive. Or we may say that we will start with a relatively smaller market which will be the market for consumer durables or the products which are used domestically as well as in institutions.

So, we have washing machines for domestic usage. We have washing machines for use in hotels. We have washing machines for use in hospitals. So, there are institutional usages and domestic usages and we will say okay we will start with the industrial paint in this market. Or we will say that we will go for the big fish right in the beginning and we will go for the automotive market.

This is what we call segmentation that means we choose a particular market sector or segment where we start our foray first start our initial marketing effort once we have established in the automotive market then we can leverage our knowledge as well as market position and the market reputation to other possible markets, to the furniture market, to the appliance market and so on. So, the segmentation is done for tactical reasons, but will often be based on strategic considerations. And what are those considerations that we will be discussing in this session? Once we have identified a

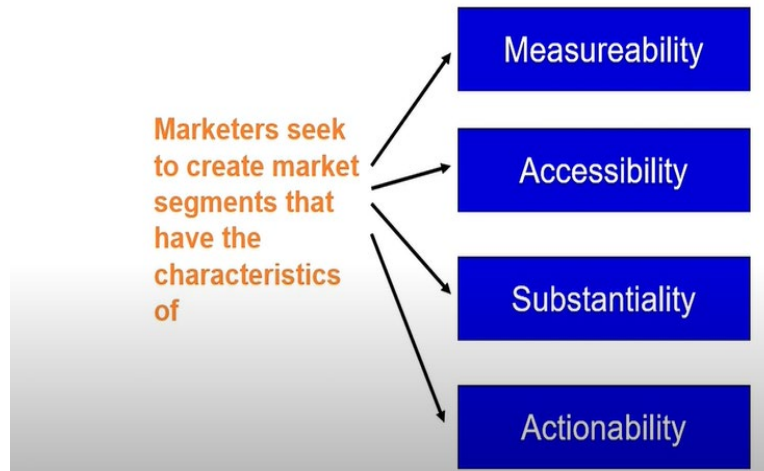
segment, say, for example, the automotive segment, we will try to understand that what are the products that are currently being used to fulfill the customer needs for that kind of product.

So, suppose we are making this metallic shine special paints of long durability. Highly scratch resistant paints. Paint which can be easily repaired or renewed, then we try to understand that what kind of paint is now fulfilling the requirement of the automotive industry. And then we try to understand that what are the key values that will delight the customers way beyond what they are getting from the conventional paints today. We will also try to evaluate that what are the values that will attract our customer's customer that means the customer of the automotive companies be it the truck operators or be it the individual buyers in the commercial sector.

Once we have understood these factors that will really wow the customer, delight the customer, then we construct our bundle of values that will be associated with our offering. In that bundle of values, there will be properties which are must-have properties. That means a paint must provide protection. A paint must be amenable to advanced application techniques like automatic paint robots or automatic spray guns and so on. We will look at the factors that must be present, otherwise the customer will not be happy at all.

And then we will also look at those factors that we are proposing a special in our offering that will delight the customer and the customer's customer. Like the metallic shine, the dust-proof property or scratch-proof property and so on, then we put that bundle of value together and then project the product to the intending buyers. And that's the process what we call the positioning the product. And this process of transmitting the value proposition, the position to the targeted segment is called the process of targeting. And that's what is segmenting targeting position.

Basic Ideas of Segmentation



To start with, in segmentation, a segment is a desirable, viable and feasible segment if it is measurable so that we know that what is the business prospect that can come from that chosen part of the market. It must be accessible. That means not only it should be attractive in size and depth, but it also must be accessible geographically as well as economically and legally and through the analysis of many such usual barriers, we will assess the accessibility of the segment. And then it must be substantial and the substantiality will be the size of today as well as the size of that market tomorrow.

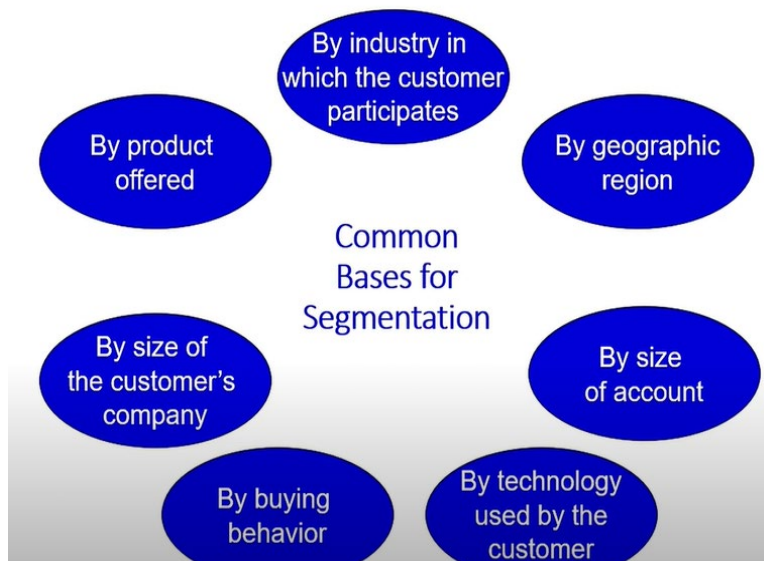
So, which means it will have the implied projections with respect to the growth of the segment and the prospect after the assessment of the technical durability of the segment. That means it should not be taken over by some alternative technology. And then finally there will be actionability. That means how all these initial assessments can be used to for the final deployment.

So to summarize, measurability means can we understand the size and needs of the market segment. Accessibility is can we communicate with this segment. That communication will include the logistics. Can we communicate, can we reach this market, this segment? So that serving the segment is possible.

Does the segment desire that values that an offering represents and is the segment significant in size and growth prospect? That's the substantiality of the market segment.

And actionability, can we create a competitive advantage here? with respect to the needs of the segment. These are fundamental assessments with respect to the desirability, viability and feasibility of the segment. The way segmentation is done in B2B represent a, what should I say, a cluster of approaches.

So, there is segmentation by geographic region. In fact, when we look at the segmentation as applied to the global market, this geography-based segmentation becomes a very important first step. Segmentation by industry in which the customer participates.



So, if we continue to talk about that industrial paint and we look at the automotive application as our first target segment, then we have to understand the automotive industry and its requirements and its competitive requirements.

After that, we will go for further segmentation by size of the account, by the technology level of the intending buyer, the buying behavior of that organization, issues that we have discussed in a previous session. So if we are marketing our paint to Maruti, we have to understand that the buying behavior of Maruti will be heavily influenced by Japanese standards and their parent standards. Suzuki may have some say. We have to know that what kind of paint issues are faced and managed by Suzuki that will affect the decision of

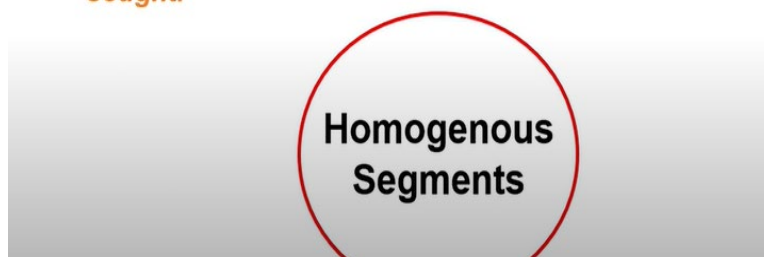
Maruti for a new paint regime. If we are addressing Hyundai, then there will be a different set of considerations. Korean influences will come into play.

Korean automotive industry practices will come into play. And of course, the relative sizes of the customers, of course, the relative sizes of the customer's companies will also be part of the segmentation basis.

Value-Based Segmentation

Value: the sum of the benefits minus the sum of the costs

Companies should try to choose and address segments that are *homogenous in the kinds of value sought*.



In a way, we can also say that segmentation will be done based on the dominant values preferred by that particular segment. That means the sum of the benefits minus the sum of the costs as perceived by that particular group of customers. A good segment should be homogeneous within.

Like automotive is a good description because all automotive companies value similar properties, they have similar expectations from their suppliers with respect to timeliness, with respect to reliability, with respect to speed of execution, with respect to post-delivery services and so on. And a particular segment should be homogeneous within that segment, but it should be distinctly different from another segment. So, automotive segment is a good description because automotive industry is because of the very nature of discrete manufacturing, will be quite different from a continuous process industry like Reliance Petrochem. So, homogeneous within the segment, but distinctively

heterogeneous with respect to other segments, will be also a measure for successful segmentation.

Analytic Approach to Segmentation

Analytic approaches need two sets of data:

- 1) Information about segment size and growth
 - **Standard Industrial Classification (SIC)**
- 2) Information about each targeted segments needs and buying behavior.

We'll spend a few minutes to understand that most of the time segmentation will start with what we call the standard industry classification. There are international standard industry classifications. Like in all countries, there will be classifications like mining and minerals or power or discrete manufacturing, continuous process based manufacturing.

So, these are standard classifications based which we will have automotive based on which we will have sub-segments like consumer appliances. We will have sub-sections like chemical industries, food industries, pharmaceutical industries. So, whether, so batch process-based industries will be in adjacent segments. Continuous process-based industries will be in another set of contiguous segments and so on. So, there are internationally accepted industry classifications, and there, of course, each country will have its own SIC or standard industrial classification.

Hypothetical Segmentation Data

- From secondary data
 - Number of business with 50-500 employees 375,000
- From quick survey of consultants
 - Seg 1: Major turnaround 10%
 - Seg 2: Stopping deterioration 20%
 - Seg 3: Competitive improvement 30%
 - Seg 4: Specific area improvement¹ 50%
- From Delphi estimate of small business consultants:
 - Seg 1: Change in *major turnaround* by 2025 +100%
 - Seg 2: Change in *stopping deterioration* by 2025 +100%
 - Seg 3: Change in *competitive improvement* by 2025 -20%
 - Seg 4: Change in *specific area improvement* by 2025 +150%

So, let's look at a hypothetical segmentation done by a consulting company, medium-sized consulting company. So, they are using secondary data, that means data coming from published material. So, they will have classification based on number of employees. So number of businesses with 50 to 500 employees, 375,000. And from a quick survey, we know that the companies needing major turnaround represent about 10% of the total addressable customers.

So, that is our segment one. Segment two will be companies wanting to stop some kind of deterioration, some kind of problem area. Segment three will be companies looking for competitive improvement. Segment four will be companies needing improvements in specific areas. And sometimes these estimates will be done through a process that I briefly talked about earlier is Delphi.

Delphi is where actually we bring together the opinion of a large number of experts and do some kind of aggregation of those, then present the findings to the experts, then again they may revise some of their opinion, then we do another round and we may do multiple rounds and then by aggregating the inputs of the experts, external experts and often of those internal experts, we will come up with some kind of a projection. So, then that will tell us that the companies looking for major turnaround by 2025 will grow almost 100% over this period. Companies trying to stop deterioration will similarly grow 100%. Companies for competitive improvement may actually decline the number and companies

looking for improvements in specific areas may that number may go by about 150%. So, this is the way we are assessing a possible segment and we are actually sizing that possible segment.

Hypothetical Sizes of Market Segments

Segment	# of Small Businesses in 2020	# of Small Businesses in 2025	Change, 2020 to 2025
Segment 1 – Major turnaround	37,500	75,000	100%
Segment 2 - Stopping deterioration	75,000	150,000	100%
Segment 3 - Competitive improvement	112,500	90,000	(20%)
Segment 4 – Specific area improvement	112,500	281,250	150%

- This shows how an analytic approach can be used to estimate segment size and growth.
- To complete the analysis, data is also needed on the needs and buying behavior for each segment.

And from that we can derive some hypothetical size of the market segment. So, this is kind of the process that we use for segmentation. The same approach can be used, this same approach can be used for industrial paint manufacturers approaching appliance manufacturers and can segment the possible buyers geographically by the size of the units and the kind of painting solutions they are looking for.

Segmentation by Discovery

- Sometimes, a business starts serving only 1-2 large customers.
- Over time, additional customers who seek something similar to the original offering are recruited/attracted. In this way, a new segment is “discovered.”
- Field marketing personnel must be coached to recognize such discovery opportunities.
- Proprietary information of different customers must be respected.

And when you are doing this, then sometimes you may discover a new segment may be as a derivative or almost by accident. So you may actually start by servicing some large customers manufacturing washing machines where the paint will need to be, you know, good, offer good resistance to rusting, waterproof, the paint should be scratch proof and so on.

But in the process you may find some additional requirements for paint for say refrigerators. And in the process you may also find some interesting requirements for paint that should be used for ovens or the exhaust chimneys. So these are all interesting application areas and one may lead to the other in terms of coming up with special value propositions.

And will tell us about the special needs of the adjacent segment customers. And we can actually therefore expand by what we call by contiguous progress method. And many times these identifications are made by company's service personnel who go for installation and company's marketing personnel who interact with the customer in the post installation stage and they are in constant touch and they observe the trends and it can also help us in discovering this contiguous or adjacent segments or new application areas or new segments.

Exhibit A

Factors in Assessing Segment Attractiveness

- Size of segment
- Growth rate of segment
- Intensity of unmet needs
- Reachability of segment through communication channels
- Readiness of segment to reach and adopt a solution
- Likelihood of competitive intensity
- Sufficiency of channel reach
- Likely value contribution by channel(s)
- Match between segment needs and supplier's strengths
- Differentiability of supplier's offering
- Opportunity to achieve strategic goal by addressing segment
- Opportunity to achieve learning goal by addressing segments

And I will conclude with this particular exhibit where factors in assessing the segment attractiveness So we will look at size of the segment, growth rate of the segment. We have already talked about this. Intensity of the unmet needs, that means the ability to identify wow factors or delight factors out of those unmet needs.

The reachability of the segment through communication channels, the readiness of the segment to reach and adopt new solutions, the likelihood of competitive intensity, value contributed by channels.

Attractiveness of Segments



So this is a detailed list that you have in front of you that tell us different things that we assess to understand the attractiveness of a particular segment and we can actually construct interesting charts like this where we can actually evaluate four alternative segments by way of their potential size, growth prospect, the competitive intensity, our current channel position and channel reach, communication reach, capability fit, price sensitivity and so on.

Segment Attractiveness

	Segment 1 Major Turnaround	Segment 2: Stopping Deterioration	Segment 3: Competitive Improvement	Segment 4: Specific Area Improvement
Potential Size in 2020 (in Billions)	2 187.5	3 375.0	4 562.5	4 562.5
Growth, % by 2025	4 +100%	6 +100%	3 -25%	5 +150%
Need strength	5	4	3.5	3.5
Competitive strength	3	3	4	3
Channel reach	5	5	5	5
Communications reach	4	4	4	4
Capability fit	2	5	5	2
Price sensitivity	2	3	4	3
Overall attractiveness (sum of attribute scores)	27	31	30.5	29.5

And based on that, we can see we can do at the end an overall attractiveness by adding up the scores. And we see here that segment two will be our most attractive segment for this consulting company we were talking about and segment 3 will be a close follower. So, these will be the most important segments and most important applications that we will go for to start with. Then, of course, we will go for segment 4 and then maybe segment 1.

So, this is kind of what the segmentation approach tells us with respect to our B2B marketing strategy and how do we go forward. So we will continue our discussion on STP in the next session and we will look at some other models on segment based evaluation or segment based construction of marketing strategies.

Thank you.