Economics, Management and Entrepreneurship

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Lecture – 45
Supply Chain Management (Contd.) and Marketing Management

Good morning. Welcome to the 45th lecture on Economics, Management and Entrepreneurship. If you recall in our last lecture, we were discussing on certain issues of supply chain management. Today, we shall continue with the discussion on supply chain management in the first half hour and then we shall start a discussion on marketing Management. Towards the end of the last lecture, we were talking about sourcing decisions and in that context, we were talking about auctions and negotiations and that we will discuss to start with.

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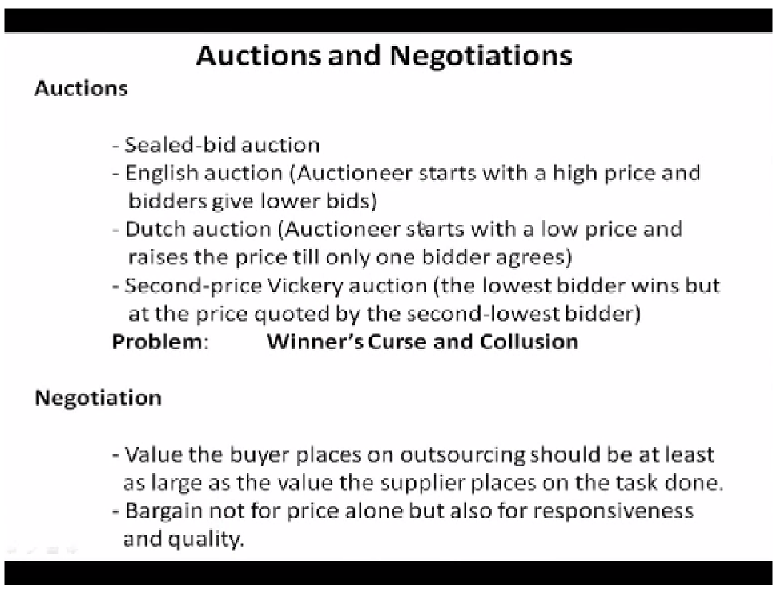

Auctions can be of different types. The most common type of auction is sealed-bid auction where the bidders give their bids in sealed condition so that nobody knows, no other bidders know about it. Whereas other auctions are all public auctions in different forms so that every bidder knows what the others are bidding and there can be different types of auction. English auction, Dutch auction and second-prize Vickery auction.

These are the most popular ones. English auction is auctioneer starts with a high price and the bidder who gives the lowest bid is awarded, is given the award. In the Dutch auction, the auctioneer starts with a low price and raises it till one bidder agrees with that price and in all these 3 auctions, particularly in sealed-bid auction, there is a problem of what is known as winner's curse in the sense that the winner ultimately is giving a bid which is higher than he could have given.

That is why second-prize Vickery auction is or takes care of this problem of the winner where the lowest bidder wins but at the price quoted by the second lowest bidder and not the one that he is bidding. This is to take care of the problem of the winner's curse. Another problem that occurs during auction is the collusion among the bidders. There are several mechanisms to take care of collusion and time is insufficient to discuss about this is whose but these are different ways through which auctions can take place.

After the award is made, the negotiation process can take place where the buyer and the seller, they discuss on various issues and they agree on various issues. Basically the value the buyer places on outsourcing, should be at least as large as the value the supplier places on the task done. So both must be satisfied with the negotiations and whenever a negotiation takes place, there is a bargain that takes place within both the parties.

It is not a bargain for price alone but it is a bargain for quality of product or service and the quickness or the responsiveness, the rapidity with which the services are made, on these issues negotiations take place.

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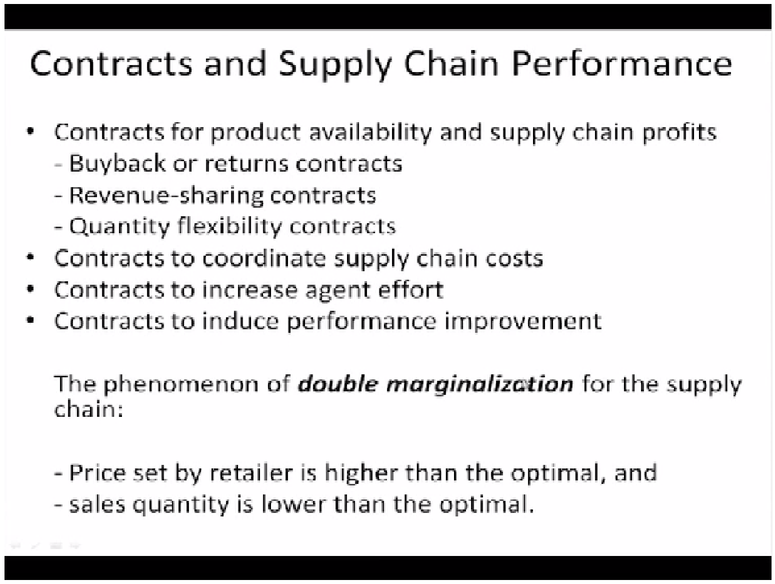

Now in supply chain, there can be different types of contracts between the buyer and the seller and here we are mentioning about 4, in a way 6 such contracts. Contracts for product availability and supply chain profits, there are 3 types. Buyback or returns contracts, revenue-sharing contracts, quantity flexibility contracts. All this 3 contracts fall under contracts for product availability and supply chain profits.

There are 3 other contracts. Contracts to coordinate supply chain costs, contracts to increase agent effort and contracts to induce performance improvement. We shall discuss on all the contracts separately just now. But there is a problem in all these contracts. The problem is the phenomenon of double marginalisation, means the price set by the retailer is often higher than what is the optimal and the sales quantity is lower than what it could have been.

So these are the problems and basically these contracts help to reduce the double marginalisation problem to set the price alright and to get the best sales quantity. Let us discuss all these contracts one by one.

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Buyback or returns contracts. Here the manufacturer specifies a wholesale price, call it c, along with a buyback price p and normally at which the retailer can return any unsold units at the end of the season. So here the price at which the wholesale buys it from the manufacturer is c see and any unsold items are bought back by the manufacturer. Now buyback encourage retailers to increase the level of product availability because they know that they can return the unsold units.

And it raises the total supply chain profits but it distorts information about retail orders because retail sometimes orders more than what actually they should have ordered. They know that they can return and therefore they order more than what they require and therefore thereby distorting information on the customer requirements.

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Revenue Sharing Contracts

The manufacturer charges the retailer a low ***wholesale price (c)*** and shares a fraction (*f*)of the retailer's revenue.

Low cost of stocking encourage retailers to increase the level of product availability.

However, buybacks distort information about the retail orders.

The revenue sharing contracts. The manufacturer charges the retailer a low wholesale price and shares a fraction of the retailer's revenue. So here the retailer can buy the items from manufacturers at a low price but whatever profit the retailer is having, a fraction of it the manufacturer shares. So the revenue is shared between the retailer and the manufacturer.

The low cost of stocking encourages retailers to increase the level of product availability because the retailer can buy at a low price, they tend to order larger amount and therefore more product is available and hence there is also a distortion of information about the actual customer orders at the retail.

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Quantity Flexibility Contracts

The manufacturer allows the retailer to change the quantity ordered after observing the demand.

If the retailer orders Q units, the manufacturer commits to supply $Q1 = Q(1 + \alpha)$ units, $0 < \alpha < 1$.

The retailer is committed to buy at least $Q2 = Q(1 - \beta)$ units, $0 < \beta < 1$.

Retailers can modify their previously placed order.

Information distortion is less.

Next quantity flexibility contracts. The manufacturer allows the retailer to change the quantity ordered after observing the demand. That means the retailer can place an order with manufacturer but can increase or reduce the order if it finds that the demand in the market is less or more.

For example, if the retailer orders Q units, the manufacturer commits to supply more than Q to the extent of alpha*Q, beyond the amount ordered by the retailer. The retailer is committed to buy at least Q2 which is beta*Q less than the order amount. Retailers can modify their previously placed order in this contract. Now here the distortion of information regarding orders from the customers is less.

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Contracts to coordinate supply chain costs. Differences in costs at the buyer and seller leads to decisions that increase the total supply chain costs. Low replenishment lot size can result in high manufacturing costs. So if the retail places less order but more frequently, the high manufacturing cost will rise due to the fixed cost being large and this leads to high supply chain cost.

So what the manufacturer can do, it can offer quantity discounts to induce the retailer to order higher lot size. Manufacturer can say that if you order for more items, than your price will be less. So if the quantity required or asked for is more, than the manufacturing cost reduces, unit manufacturing cost reduces. This however results in high information distortion.

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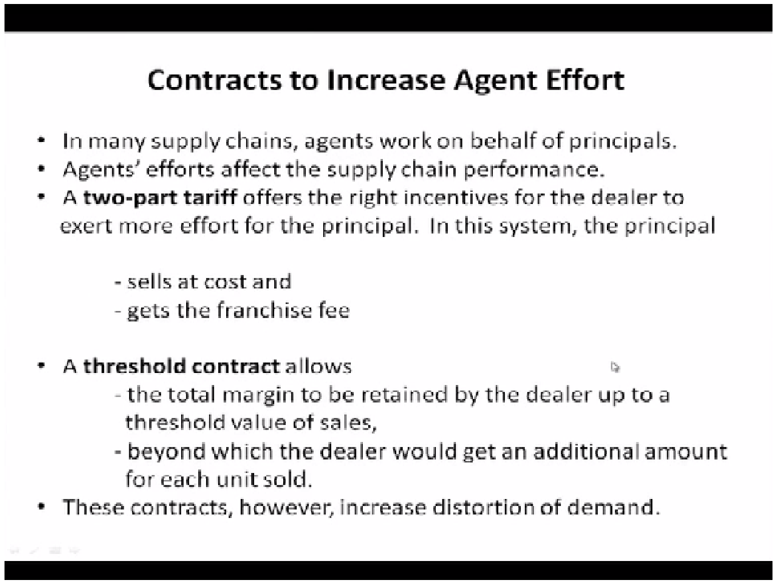

Now here is how the agent is involved in the contract and how he can be induced to help reduce the supply chain cost. Contracts to increase agent effort. In many supply chains, agents work on behalf of the principals. Therefore, agent's efforts affect the supply chain performance. Now there can be 2 ways in which agent can be influenced. A two-part tariff and a threshold contract. A two-part tariff offers the right incentives for the dealer to exert more effort for the principal.

Here the system is that the principal sales at the cost at which he buys it but he gets a franchised fee. So that is the advantage. Whereas a threshold contract is the total margin to be retained by the dealer is up to a threshold value of sales. Beyond that the dealer gets an additional amount for each unit sold.

Therefore, the dealer is sure of getting an amount if he can meet the threshold value and he is sure that you will get that amount. So there is a motivation for him to go beyond it because if he can go beyond it, then he gets an additional amount and the dealer gets an additional amount. So this is an incentive for the dealer to go beyond the minimum threshold value. This, however, increase the distortion of demand.

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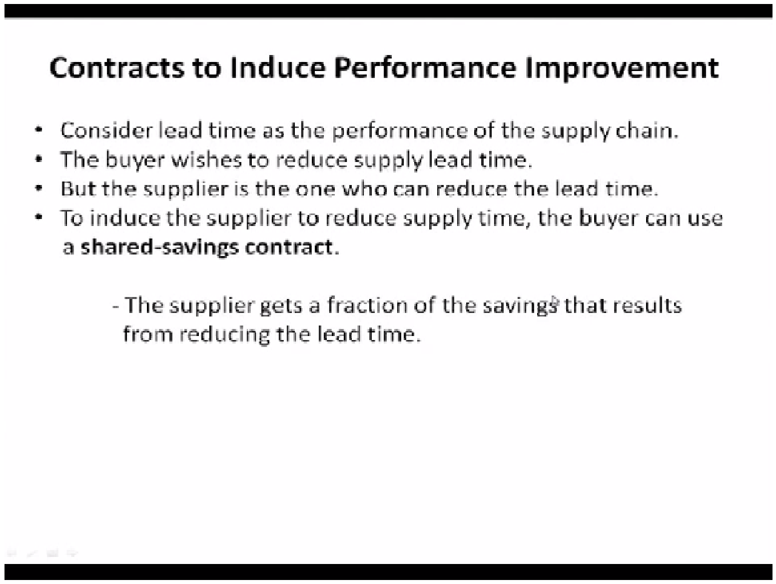

Lastly, the contracts to induce performance improvement. Let us say that the lead time is the supply chain performance criterion. So suppose lead time is the criterion for judging the performance of the supply chain, so what the buyer would like to do? He would like to reduce the supply lead time. But the supplier is the one who can only reduce the lead time. Buyer wants less supply lead time but supplier should be able to supply in less time. So how to induce the supplier to reduce supply time. The buyer can use a shared-savings contact.

Here the supplier gets a fraction of the savings that results from reduced lead time. So these are different contracts mechanism. Friends supply chain management is a very more evolving topic today and many institutions are working in different aspects of supply chain, contracts negotiations, coordination among supply chain partners and so many other issues are important. We cannot cover everything but we have covered many important aspects. So we now go to our next topic which is introduction to marketing management.

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MARKETING MANAGENT

Let us understand to start with that marketing is the interface between the industry and the market. The industry or in particular a company has to manufacture products or create certain services for the ultimate use of the users in the market. The products and services that the company designs or manufactures must ultimately satisfy the customer needs. Therefore, the design of the product, the need to know the knowledge of the customer needs and the design of the products and the way the product should be publicised in the market.

These are issues in marketing management. Let us discuss some of the important issues.

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Importance of Marketing

- Tom Peters and Bob Waterman (In Search of Excellence):
  - Stay close to customer
  - Stick to your market
  - Motivate employees
- Tom Peters (Passion for Excellence):
  - Customer Satisfaction

We refer to 2 important papers in the 80s, important books. The first by Tom Peters and Bob

Waterman. The title of the book is “In Search of Excellence” and later Tom Peters wrote another book that was Passion for Excellence. They brought out different factors that influence the performance of a company in the market but the most important aspects that they highlighted were these 3 and this. One, stay close to customers.

So you know what the customer wants. What difficulties they are facing. What needs they have. Stick to your market and motivate your own employees. Ensure that customers are satisfied. So you can see from these points that the most important aspect of success of a company is the customer.

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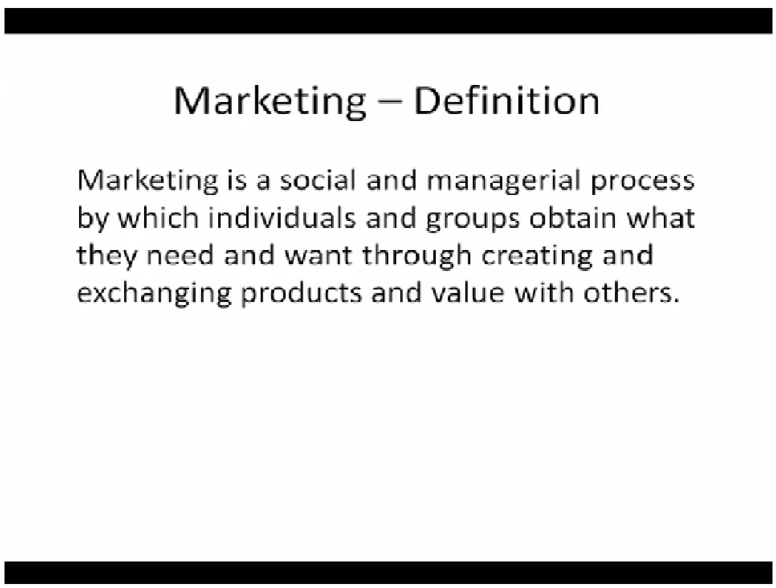

We give a formal definition of marketing. Marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others. The important thing here is creating and exchanging products and value. These words are very important, in particular exchanging products and value. These are important. So we shall explain this in more detail in the later slides.

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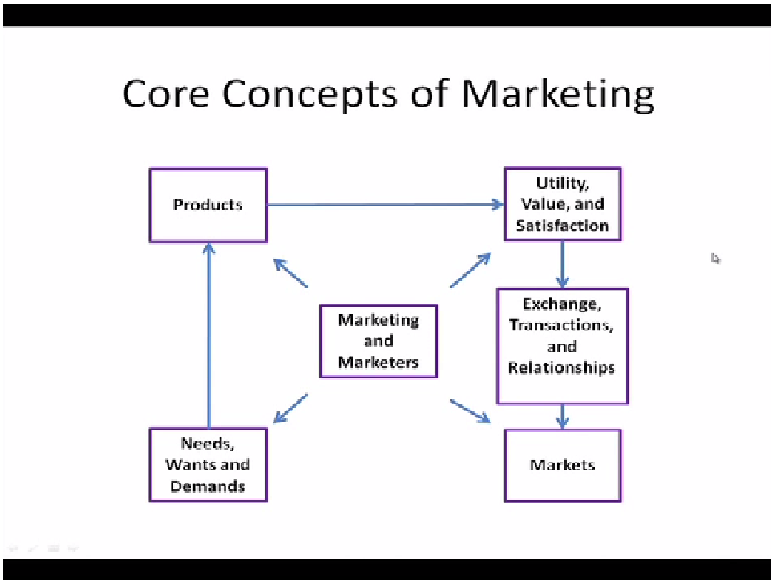

The core concepts of marketing evolve around these 5 boxes. This one is the user's needs, wants and demands. To satisfy them, the company those who market their products, they prepare or design their products. Product has certain utility for the users to provide certain values and make the customer satisfied by exchanging the products in the market, thereby a transaction takes place and a relationship grows and thus the company enters the market. Does the job of marketing and marketers? and that is how they influence all these 5 aspects of marketing.

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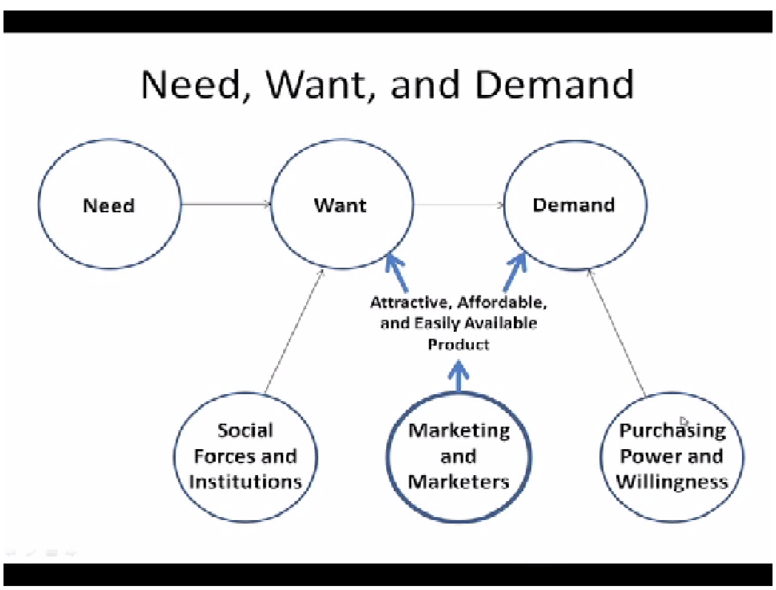

The first aspect is need, want and demand. Need is the basic need of human being but what they want, can be very different from what they actually need and that is governed or influenced by social forces and institutions, what others are doing, the social values and once the wants are there, actually what they demand from the companies, what the demand to buy, depends on their purchasing power and their willingness to buy or exchange.

Money with products and services. So these are important. Unless they are, there are willing and unless they have money to buy, they cannot fulfil their wants. So these are the important thing to understand that the basic needs are different from what they actually want and what actually they demand and actually buy, will depend on whether they are willing to buy and whether they have the power to buy in the monetary terms.

No where the marketing and marketers come into picture? They can provide attractive, affordable and easily available products. Products must be available to meet the demand. Product must be attractive so that customers or the human or the user or customer would like to want it and it must be also within his reach.

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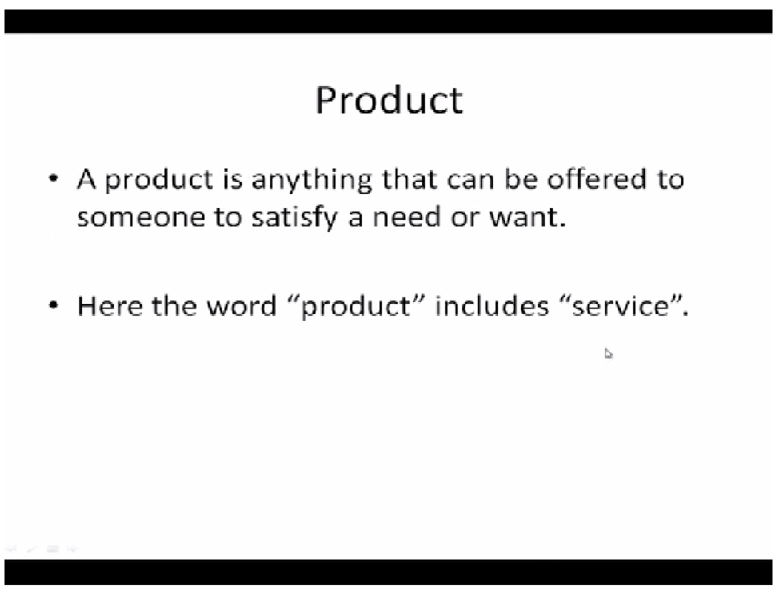

Product we have already discussed in the past. Product is anything that can be offered to someone to satisfy a need or want and here the word product includes service.

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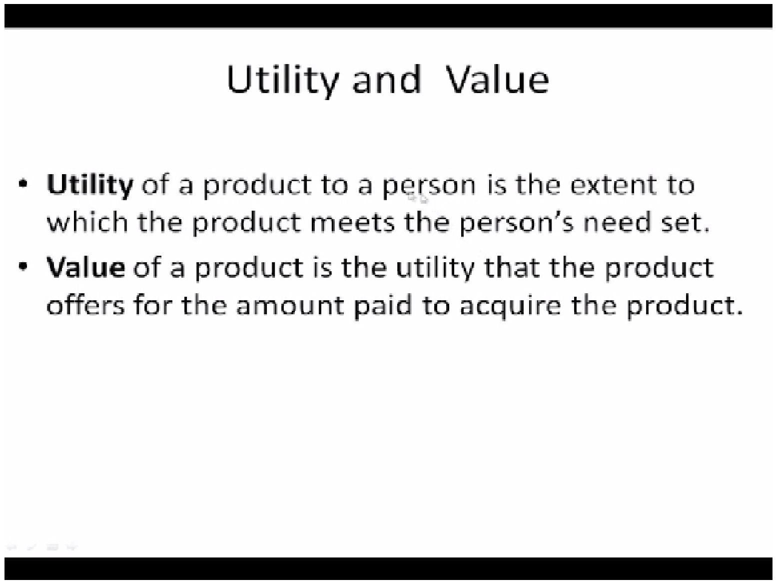

The next core concept is utility and value. Utility of a product to a person is the extent to which the product meets the person's need set. So that is the way utility of a product to a person. Whereas value is the utility that the product offers for the amount paid to acquire the product. Sometimes we say that value=utility/price. So to get the same utility if you pay more price then your value is less.

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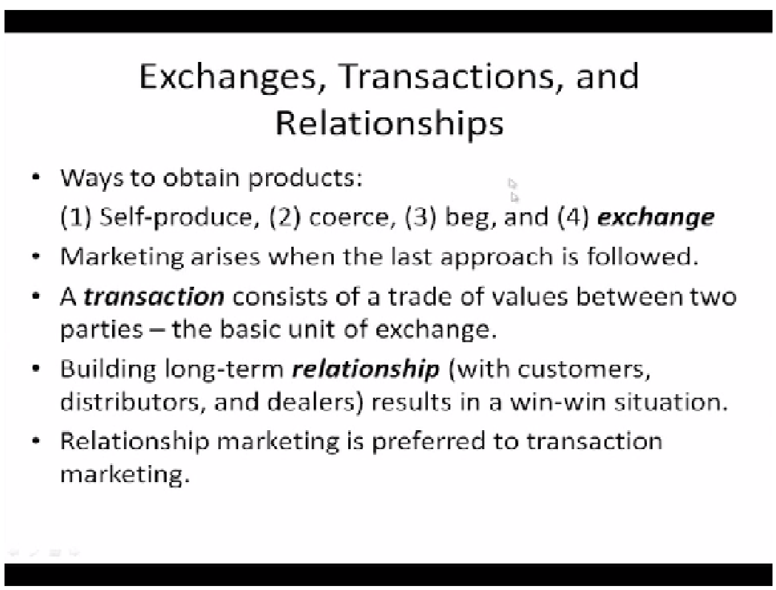

The next core concepts are exchanges, transactions and relationships. Now there are different ways to obtain products and services. You produce yourself. You force somebody to give you the product and services or you beg or you exchange. So marketing deals with exchange. So we exchange products. Somebody buys it, not by begging, forcing, or self producing. So marketing arises when the last approach is followed. Now the basic unit of exchange is a transaction.

It consists of a trade of values between 2 parties. Now this is very mechanical. It does not build in a relationship. Marketing believes in developing a relationship, not just a transaction. Hence the name relationship marketing and not transaction marketing. A transaction marketing is something like selling, whereas the relationship marketing develops a long-term relationship with customers, distributors and dealers that results in a win-win situation. Both the producer and the consumer, they win. So relationship marketing is preferred to transaction marketing.

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Now what is a market? There are 3 connotations of the word market. Market is a place where buying and selling takes place and commonly we understand this meaning when we use the word marketing. Economists say market is a collection of buyers and sellers to transact over a product or product class, that is by economists.

Marketers consider a market to consist of buyers only and according to them, a market consists of all the potential customers sharing a particular need or want who might be willing and able to engage in exchange to satisfy that need or want. So anybody or potential customers who are ready to exchange in order to satisfy their need and want, they constitute a market.

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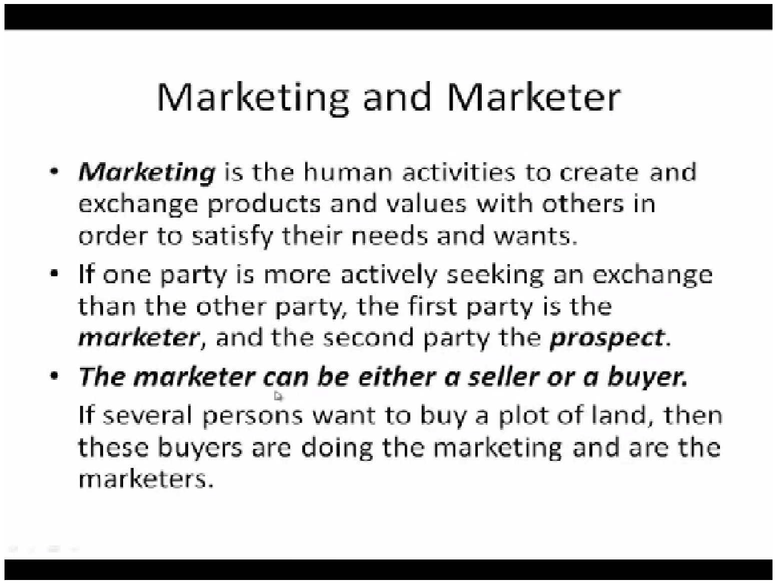

Marketing and marketer, already we have seen what marketing is. Once again we say that marketing is the human activities to create an exchange products and values with others in order to satisfy their needs and wants. So create and exchange products and values with others. If one party is more actively seeking an exchange than the other party, the first party is the marketer. So whoever is seeking actively to make an exchange, he or she is the marketer and the second party is the prospect.

Very important thing about marketing and marketer is that the marketer can be either a seller or a buyer. For example, if several persons want to buy a plot of land, then these buyers are basically taking the active role of making the exchange and therefore they are doing the marketing, not the seller and they are the marketers. This is a very important concept of marketing. Whoever takes the active role in an exchanging and trying to exchange with others in order to satisfy his or her wants and needs, is the marketer.

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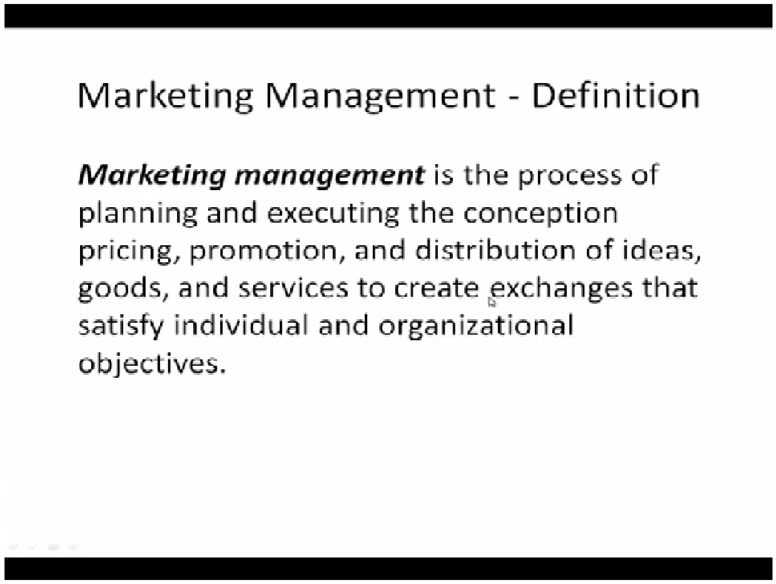

Next we come to the definition of marketing management. It is the process of planning and executing the conception pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organisational. So you can see that marketing management is a process of planning and executing creation and exchange of ideas, goods and services in order to satisfy the organisational objectives. So that is marketing management.

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Now traditionally the organisation's concepts towards marketplace have seen many threats. One, production concept. Here consumers, here the basic concepts of that the consumers like low-cost and easily available products. If the prices are low and if they are available on the shelf, consumers buy it. That is the production concept. Product concept is that the customers like quality and performance.

So they are naturally more concerned about the functionalities of the product and the way it will actually work when used. The performance, the reliability aspects. There is a third concept which is called selling concept that says that the customers need to be informed through sales promotion activities. So this concept says that lot of publicity, lot of other promotions like price cuts, discounts may be given to make the customers buy your product.

Then there is a marketing concept which is that the organisation needs to determine the needs and wants of the target market and deliver the desired satisfaction more effectively and efficiently. Now this means that the organisation has not only to know the needs and wants of the target market but create the additional needs and wants of the target market. That means the marketing concept can go beyond only knowing what the customer wants.

It can also infuse in the customers, the potential customers. It can even tell them that we can give you something more than what you want or what you need and therefore the need set of the customer can rise. So they can determine the needs and wants of the target market and deliver the products to the satisfaction of the customers more effectively and efficiently. So efficiently means with the same, more quickly and at a low price.

Effectively means to give better quality products better, more functionalities and satisfying the customer needs and lastly, the societal marketing concept that balances company’s profits and consumer needs and wants while at the same time, the social and the environmental well-being are taken care of. So today we are going towards social marketing concepts where not only the company's profits and consumer needs and wants are satisfied but also society and environment affects are, bad effects on society and environment, particularly environment are less.

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Now we try to see where marketing strategies and functions fit in the overall strategic planning of a company. We have already discussed on strategic planning when we discussed about planning aspects in management. So we once again quickly go through those functions. The vision mission etc.

So identify the corporate mission, identify company's strategic business plan, evaluate the current portfolio business, what the company is doing right now and what new business areas or arena it wishes to enter in the next 5 to 10 years. These are the basic activities of strategic planning. Now where does the marketing comes into picture. It comes into picture particularly in these 2 or 3, last 2 or 3 activities.

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Marketing management helps the strategic planning process or tells itself in the strategic management process in these ways. It analyses market opportunities. It finds out what are the opportunities that lie ahead for the company in the market so that the company can make deliberate attempts to capitalise on those opportunities. It does a research, a thorough market research and selects target markets that you give the highest potential of giving profits.

Design marketing strategies. Plan for them and organise, implement and finally control the marketing efforts. So this is marketing management process and as you can see, the strategic planning process will actually be effective or will so results only when the marketing management process helps it to identify the opportunities in the market, selects the target markets and design the strategies, marketing strategies.

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Now let us see how the marketing opportunities are analysed. Now in the market, there are several players in operation. One of course is the consumers but there are competitors. There are suppliers. There are intermediaries. Also there are other types of factors, demographic factors, technological factors, social factors and political factors. So these factors constitute the marketing environment.

So market, marketing management's function is to collect, store and analyse information on different players and different environmental entities of the market so as to make a proper analysis. So the first aspect is the marketing information system. The second aspect is that the information must be analysed in terms of suppliers, whether they are good, whether they can supply in time, at a price which is acceptable and with good quality. Who are the intermediaries? Are they reaching the customers well?

Who are the customers? that the target customers and who in particular are the competitors. What is the demographic makeup? What technological changes and other social forces and political changes that are coming into picture. Also the marketing management studies the consumer market and the organisational buyers. So one is the consumers in the market. The other type of consumers is the industrial consumers, the organisational buyers, they buy machines, if you are producing machine, they will buy from you and study the competitors.

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Now I mentioned about target markets target markets. Target markets, what actually the marketing management does. It measures the attractiveness of a given market. It divides the market into different segments. It evaluates each segment separately and selects the market which the company is to target that is called the target market. We will naturally discuss in more detail about this, how segmentation is done, how they are evaluated and how the company selects the target market, we shall discuss in detail in our next lecture.

But this is how I am introducing the concept of target market. Then once the market is, segment is selected, the next thing is the company must develop its positioning strategy where actually it should position in the market, position itself, position its product in the market and access and exploit the target market. So these are different aspects that we shall study in some detail in our next lecture.

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Now marketing strategy. Marketing strategy consists of different issues, issues regarding how much to spend on marketing and there are different mixes that it must also decide. For example, offer mix and promotion mix. Offer mixes what product at what price, where and how it should be promoted in the market. The 4 P's. This is a very popular aspect of marketing, product, price, place and promotion.

Then promotion mix, meaning how much of, how much sales promotion, how much of advertising, how many sales force, how many people, what should be the public relations, whether one should write to different customers through mail or telemarketing. So when a product is promoted, there are different ways.

So what mix one should, the company should follow and then how the budgets should be allocated to different products, to different marketing channels, to promotion media and to sales area. So marketing decisions must be made and strategy must be decided for how much total marketing budget, how they should be allocated and what should be the 4 P's and what should be the mix of promoting the product in the market.

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Now the 4 P's. Product is just not the product itself. Product consists mainly of the functionalities, the features that are present in the product that must be decided upon and that product must be created, manufactured. Then beyond that, there are certain other aspects, the aspect of packaging it, how well it should be packaged so that no damage occurs. How it should be branded, whether it should be given a name that carry the meaning that the customer remembers.

And when in use, if there are problems, what should be the warranty and the servicing policies, must be decided along with the product. Price, what should be the wholesale and the retail price. What discount should be given. What allowances and what credit terms, whether it should be sold on credit or on cash, that must be decided and if it is sold on credit, after how many days the money should be given back that also should be decided. So that is price.

Place, whether one would like to sell it to the wholesalers or directly to the retailers and what distribution, we have already discussed this in great detail in our supply chain management. Therefore, I will not discuss this further. And then lastly, promotion through advertisement, through more sales force deployment, different types of publicity, or different types of sales promotion schemes such as discounts and other things. So this must be decided for marketing.

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Now one very important aspect of marketing is market research. Market research, it is the systematic design, collection, analysis and reporting of data and findings relevant to a specific marketing situation. Now as you can see, it is a design of research methodology, collecting information, analysing information and reporting them and drawing conclusions, that is findings, all this is marketing research.

So here the data source can be primary or secondary. Primary means the marketing personnel reach the customers, get their views, that is primary. Secondary means others have done the, collected the data and you use those data for the analysis. So this is the secondary data source. Now research approaches can be different types. One direct observation. One can actually meet the ultimate user or consumer and finds out or takes his views, that is direct observation and then focus group.

It can also be that, we decide about a particular sample and we say that this is our group and we shall see how they behave, what opinion they give or we can do a market survey, questionnaire survey, Delphi survey, all that things we have discussed in the past. So this is another method. Then one can use different types of instruments, research instruments. The most popular one is the questionnaire method in which a questionnaire is designed and administered among the subjects in a focus group or in the market from the potential customers to find out what they need, what they want.

Or sometimes depending on the type of the product, it has been seemed that the subject's emotion has been captured through mechanical devices. This is a very new method and this is possible only if the product is such that the subject's emotion can be captured through some electronics or photographic means. Also another aspect of marketing research is sampling. Whom we should see, the subject.

What should be the size of the sample, whether it should be 100 or 1000 and what procedure we shall follow, whether it is a random sample process, random sampling or stratified random sampling. This is to be decided in the sampling process and then contact methods whether through telephone, mailing, or personal interviews.

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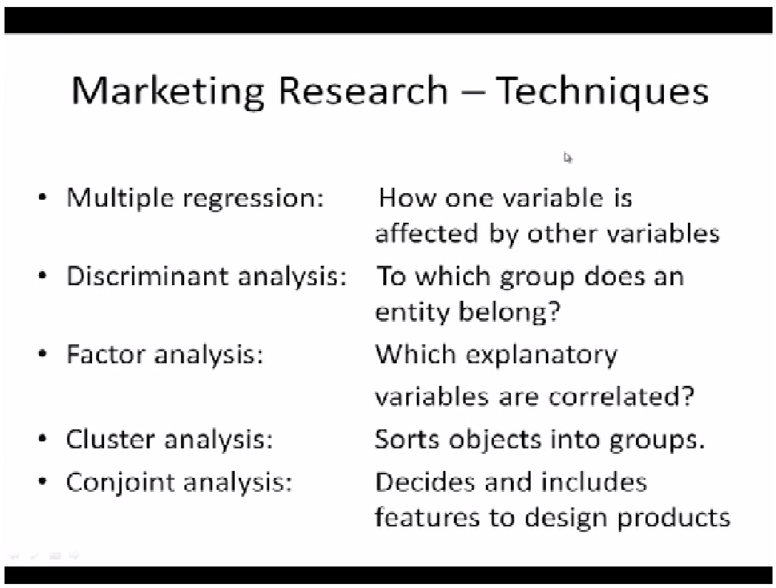

Now to end today's lecture, let us see what sort of analytical techniques are used to analyse the data. Now there are different types of techniques starting from descriptive, statistical techniques like finding out mean, mode, standardisation, etc., advanced statistical analysis can also be conducted to find out relationships among variables. The common method is multiple regression which we have already studied.

How one variable is affected by other variables. So how price affects sales, that is the case of regression analysis. Discriminant analysis, to which group does an entity belongs. Suppose that we would like to stratify one set of customers from another set of customers depending on their different behaviour and purchasing power or willingness to buy, we can group them into 2 groups using discriminant analysis.

Factor analysis basically which explanatory variables are correlated. Quite often we can come across a large number of factors that determine sale. We can group a few factors that are correlated into 1 factor. So if there are originally 20 factors, we can group them into 5 sets of factors, that is done through factor analysis.

Cluster analysis, basically sorts objects into groups forming clusters and lastly conjoint analysis that decides and includes different features to design products. Now these research techniques are quite advanced and are beyond the scope of discussion in this particular subject. So friends, we stop today. We continue our discussion on marketing management in our next class. Thank you very much.