Introduction to Marketing Essentials
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Lecture – 15
Marketing Research: From Customer Insights to Action – II

Welcome to this course on Introduction to Marketing Essentials. And we started discussing part three that is targeting marketing opportunities. And for understanding how to go about targeting marketing opportunities, we need to understand two things; the first is the marketing research and the second is market segmentation, targeting and positioning. And we started with Marketing Research in module 14 and now, we will continue our discussion on Marketing Research in module 15.

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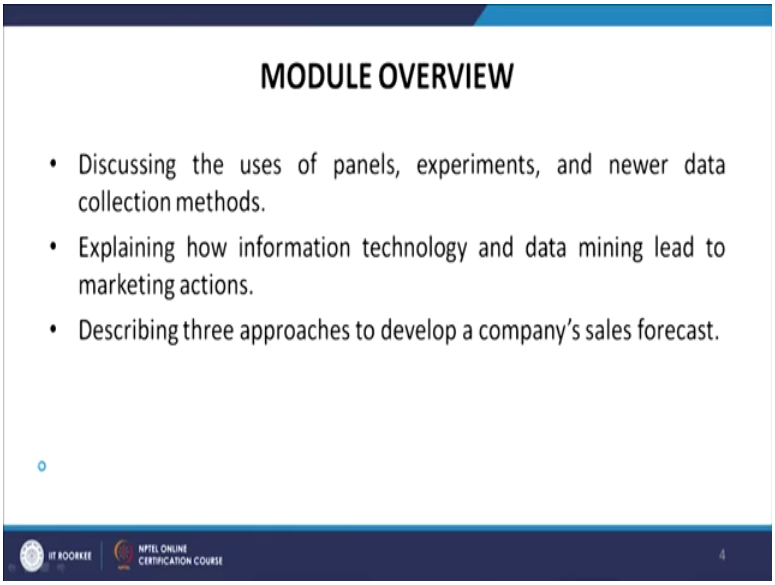

So, in this module, we will be discussing the uses of panels, experiments and newer data collection methods. Then, we will explain how information technology and data mining lead to marketing actions and thereafter, we will understand three approaches to developing a company's sales forecast. Now, to introduce, as we have discussed in the previous module, primary data are the facts and figures that are newly collected for this project.

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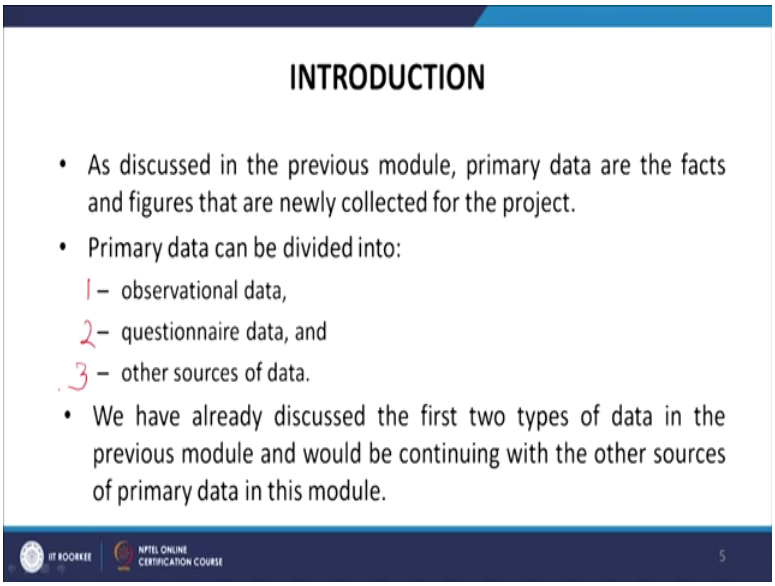

So, primary data can be divided into observational data, questionnaire data and other sources of data. We have already discussed the first two types of data, in the previous module that is module 14 and we'd be continuing with the other sources of primary data in this module.

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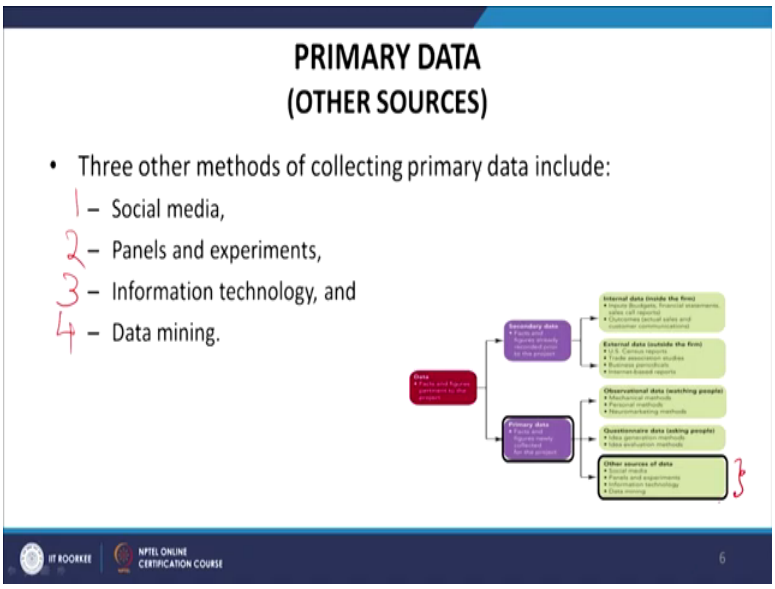

Now, what are these other sources of primary data? So, there are three other methods of collecting primary data that include one is the social media that all of us are well aware

of. The second is panels and experiments. The third is information technology and the fourth is data mining. So, now, we are talking about this particular box.

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Now, let us look at what are we talking about when we say social media. So, Twitter, Facebook and other social media are revolutionizing not only the way people connect with each other, but also the way todays products are advertised and sold. As a result, new kinds of marketing research are required and these must reflect the more direct connection of advertisers with present and prospective buyers. So, that is the first thing that it should do. The second thing that it should do is the speed and sheer volume of customer feedback data and the new marketing metrics and measures of success of social media promotions.

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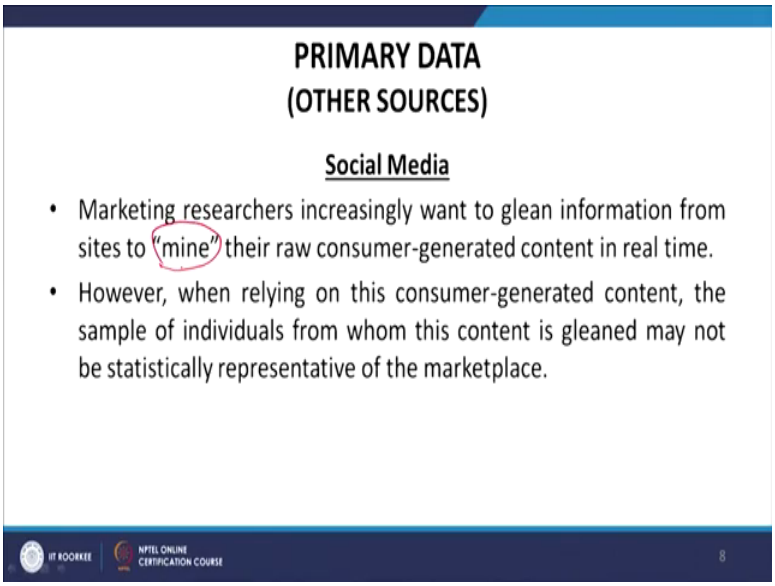

So, marketing researchers are increasingly trying to glean information from sites to mine their raw consumer generated content in real time. However, when relying on this consumer generated content, the sample of individuals from whom this content is gleaned may not be statistically representative of the marketplace.

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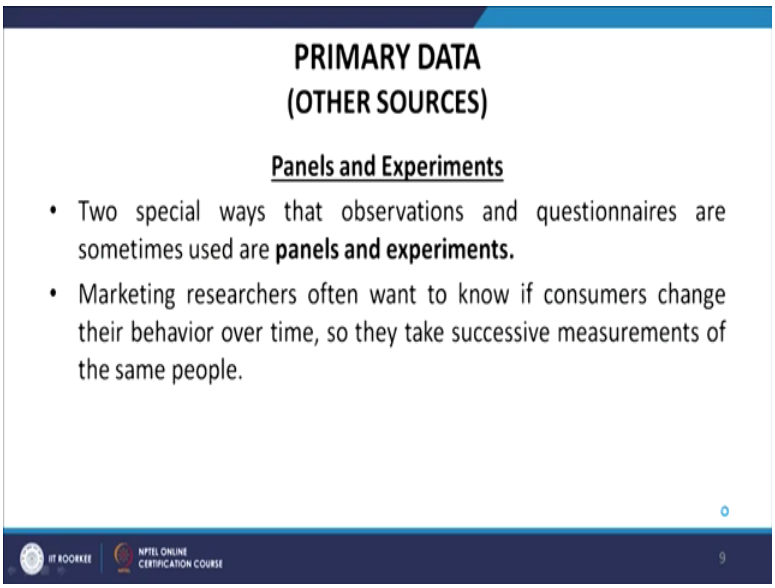

Another source of primary data are panels and experiments. So, two special ways that observation and questionnaires are sometimes used are panels and experiments. So, marketing researchers often want to know, if consumers change their behavior over time.

So, they take successive measurements of the same people and by taking this successive measurement, then researchers are able to find out whether the same consumers' behavior has changed over time or not and how much this behavior has changed.

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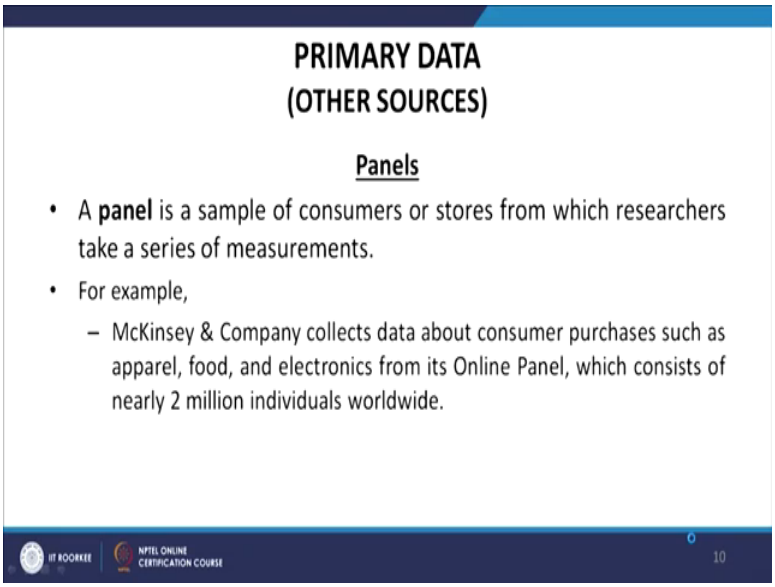

So, let us look at what are these panels. The panel is a sample of consumers or stores from which researchers take a series of measurements. For example, McKinsey and company collects data about consumer purchases such as apparel, food and electronics from its online panel, which consists of nearly 2 million individuals worldwide. Now, what are the disadvantages of this panel data? So, the disadvantage of panel is that the marketing research firm needs to recruit new members continuously to replace those who drop out. These new recruits must match the characteristics of those they replace to keep the panel representative of the marketplace.

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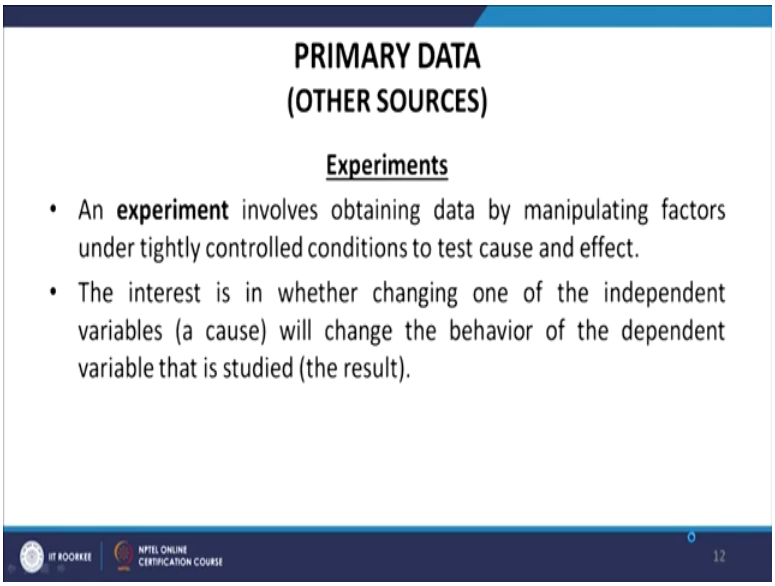

Next, let us look at what are these experiments. An experiment involves obtaining data by manipulating factors under tightly controlled conditions to test cause and effect. The interest is in whether changing one of the independent variable that is the cause, will change the behavior of the dependent variable that is studied that is the result of this cause.

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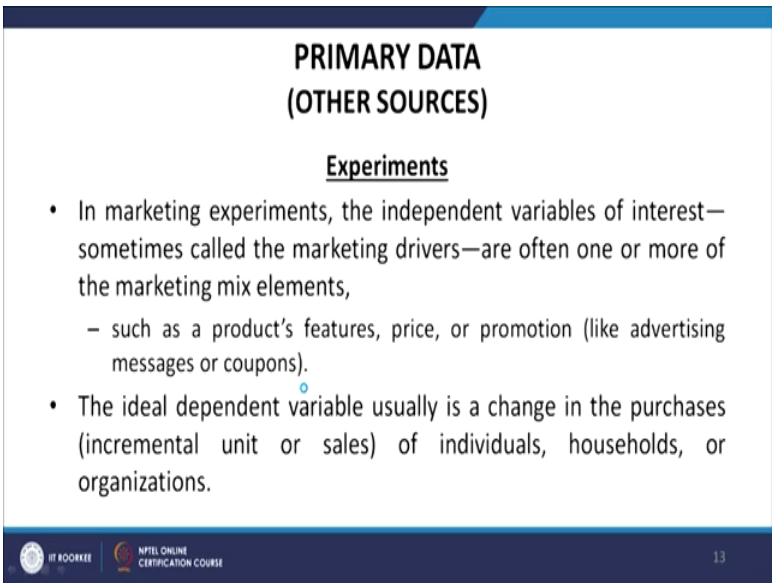

In marketing experiments, the independent variables of interest sometimes called the marketing drivers are often one or more of the marketing mix element such as the

product features, prices, promotion like advertising messages or coupons. The ideal dependent variable usually is a change in the purchase incremental unit or sales of individual household or organizations.

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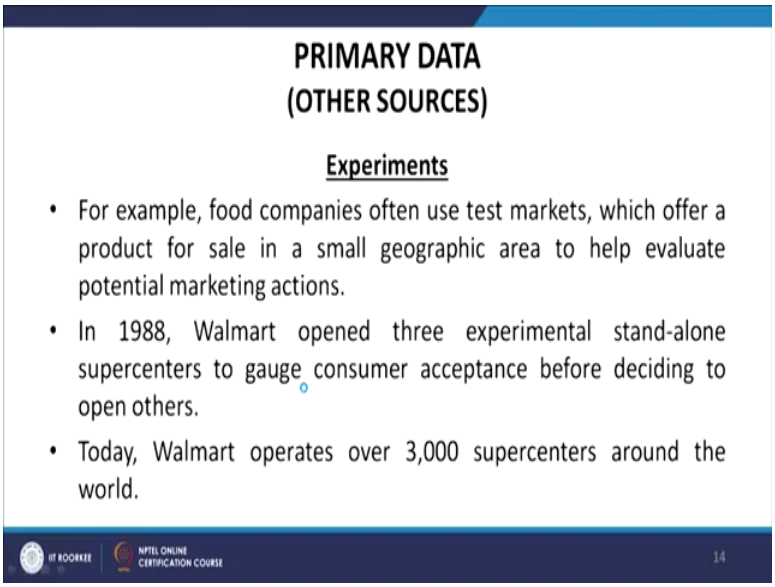

For example, food companies often use test markets, which offer a product for sale in a small geographic area to help evaluate potential marketing actions. In 1988, Walmart opened three experimental stand-alone supercenters to gauge consumer acceptance before deciding to open others. Today, Walmart operates over 3,000 supercenters around the world.

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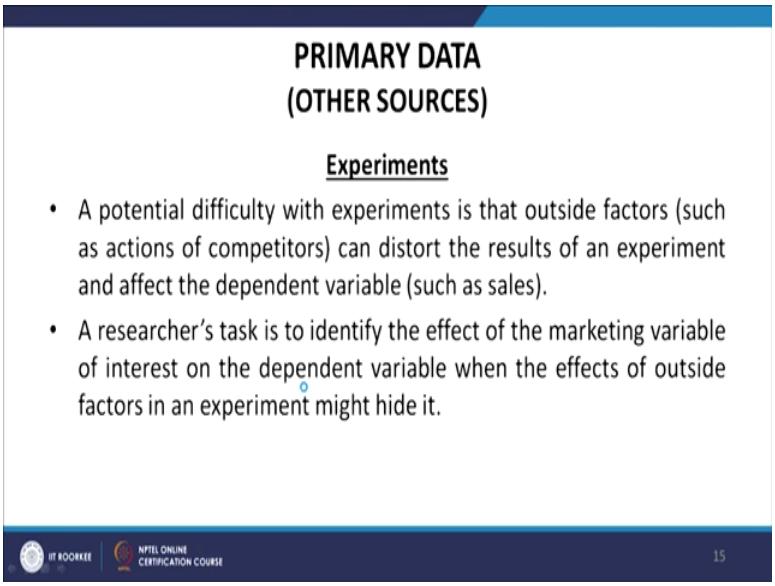

A potential difficulty with experiments is that outside factors such as action of competitors or other companies can distort the results of an experiment and affect the dependent variable such as sales. A researcher's task is to identify the effect of the marketing variable of interest on the dependent variable when the effects of outside factors in the experiment might hide it. The next source of primary data is the information technology. Information technology involves operating computer networks that can store and process data.

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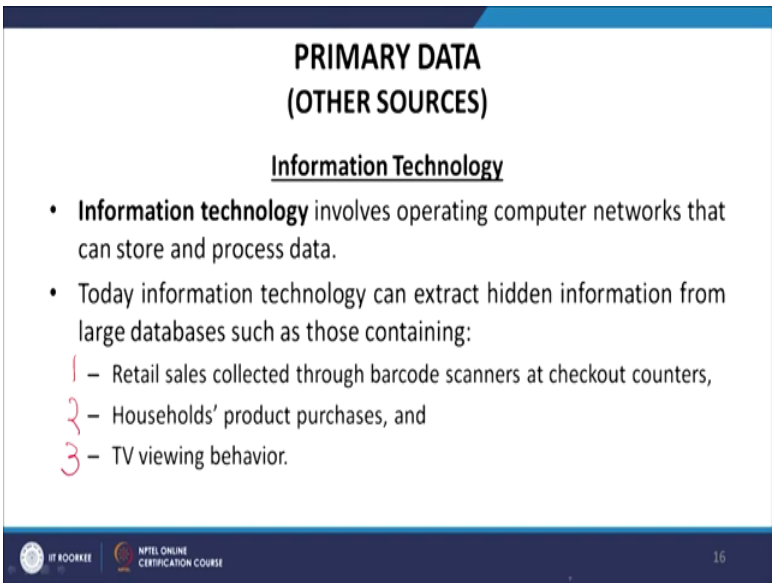

Today, information technology can extract hidden information from large databases such as those containing; retail sales collected through barcode scanners at checkout counters. So, in a particular store, there may be 100 buyers buying 50 items. So, there may be 5000 data points that are collected at this checkout counters. Household product purchases that is the second one and then, the third is the TV viewing behavior.

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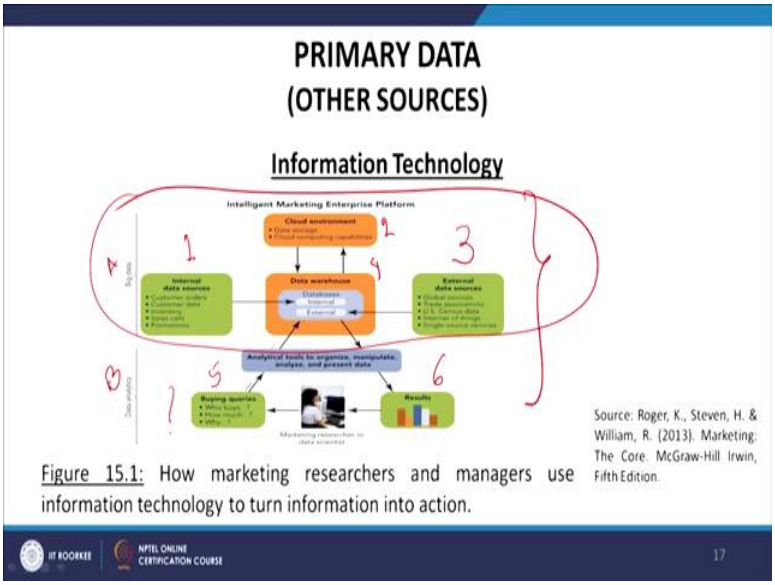

Now, let us look at this diagram. So, this is how marketing researchers and managers use information technology to turn information into action. Now, you see that here we have this big data and then, we have this data analytics. Here we have intelligent marketing enterprise platform. We have this cloud environment, where all this data is stored and then, there are some cloud computing capabilities.

Then, we have this, internal data sources, data that already exists in the organization that is called as secondary data. So, it may include customer orders, customer data, inventory, sales calls and promotion. Then obviously, there are these external data sources. We have talked about the internal data sources and external data sources.

So, external data sources include global sources, trade associations, census data, Internet-of-things and single source services. Now, all this data is collected here in this data warehouse. It has databases both internal and external. Now all these represent big data.

Now, what to do with this big data? So, then comes data analytics. So, these are analytical tools to organize, manipulate, analyse and present data. So, now, the databases are given these queries; Who buy? How much do they buy? Why do they buy? When do they buy? Where do they buy? How much do they buy, etcetera etcetera. And these questions, they go to the fourth one that is the data warehouse, it looks for the data and then, it gives the result.

So, let us say this is 5 and this is 6. Now, these results are then given to this data researcher or the data scientist and if it serves the purpose, if it answers the question, it is fine; otherwise, marketing researchers or data scientist again send some more queries to the system and then, they get the results. So, this is a continuous process.

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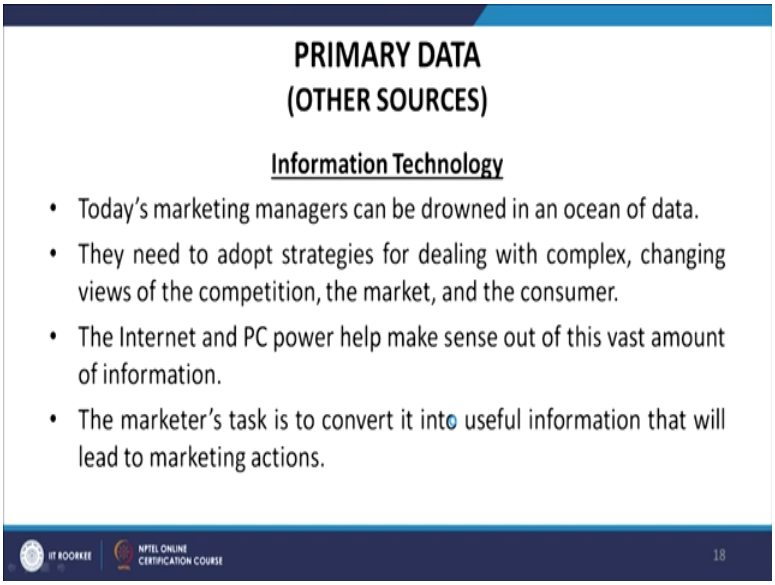

So, today's marketing managers can be drowned in an ocean of data. They need to adopt strategies for dealing with complex, changing views of the competition, the market and the consumers. The Internet and PC power helps make sense out of this vast amount of information and then, the marketer's task is to convert it into useful information that will lead to marketing action.

So, you see that this internet and PC, they are used to store and collect lots of data. And then, marketers task is to then find out useful information from all that big data and that information should be so, that it should lead to some kind of marketing action.

If that information is not useful, if it does not leads to marketing action, then again, it has to be looked whether new data is to be collected or the data may be there in the organization that is the secondary data. And the third thing that is important here is to find out whether we have the tools to extract that data from the databases either internal or external. And then, the data is converted into this useful information that will lead to marketing actions.

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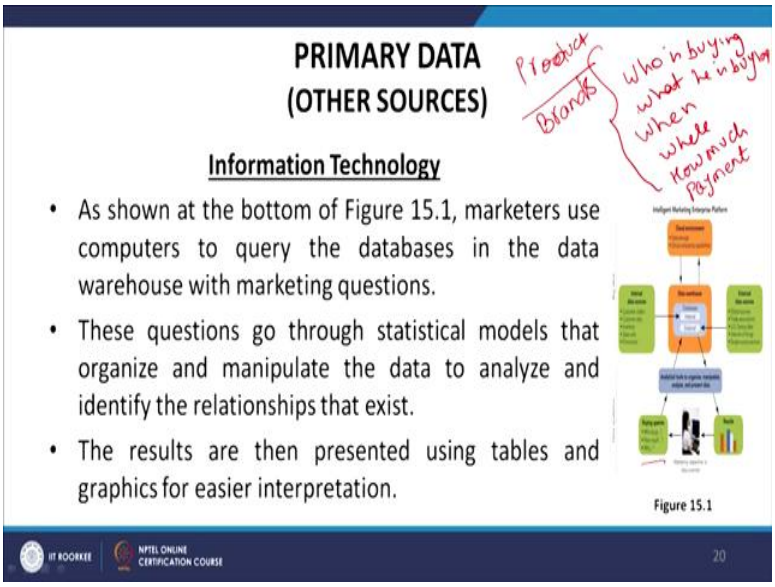

So, as shown at the top of figure 15.1 that is the last figure, marketers use information technology that consist of computers linked together through sophisticated communication networks to access and retrieve data from internal and external sources.

These data sources are stored, organized and managed in databases and collectively, these databases form a data warehouse. So, lots of data is being collected through this box in the middle that has both the internal and external data, lots of data. So, it is called as data warehouse. As normally, warehouses are where things are stored, similarly in a data warehouse data is stored.

So, as shown at the bottom of figure 15.1 marketers use computers to query the databases in the data warehouse with marketing questions. And the marketing questions can be who is buying? What he/she is buying?; when, where, how much and how does he/she make payment whether cash or UPI or credit cards or debit cards etcetera, etcetera. Then, this will also include what kind of products he/she is buying and then, what kind of

brands. So, all this data is collected. So, these results are then presented using tables and graphics for easier interpretation. So, that makes them more visually appealing.

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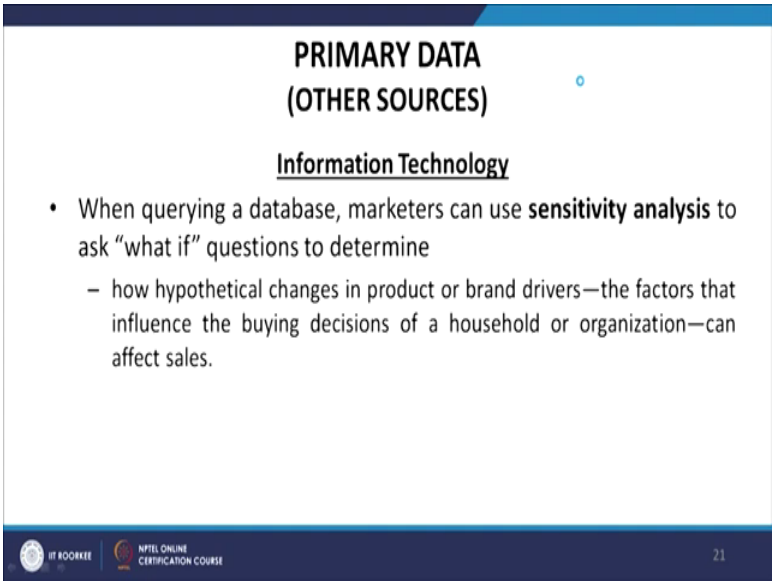

When querying a database, marketers must use sensitivity analysis to ask "what if" questions to determine, how hypothetical changes in product or brand drivers - the factors that influence the buying decisions of a household or organization - can affect sales. So, we are looking at these hypothetical changes in product or brand drivers. What factors will influence the buying decisions of an individual, of a household or of an organization. And then, how they affect the sales.

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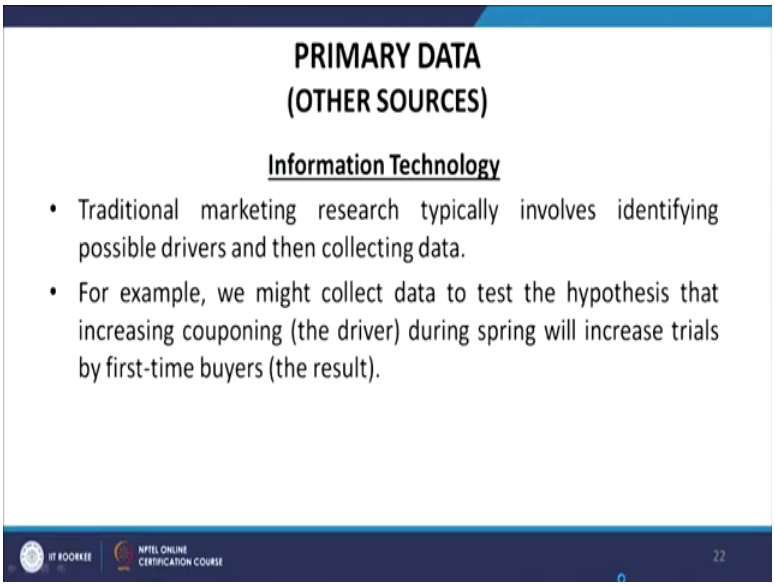

Traditional marketing research typically involves identifying possible drivers and then, collecting data. For example, we might collect data to test the hypothesis that increasing couponing that is considered to be the driver, during a spring will increase trials by first time buyers that is the result.

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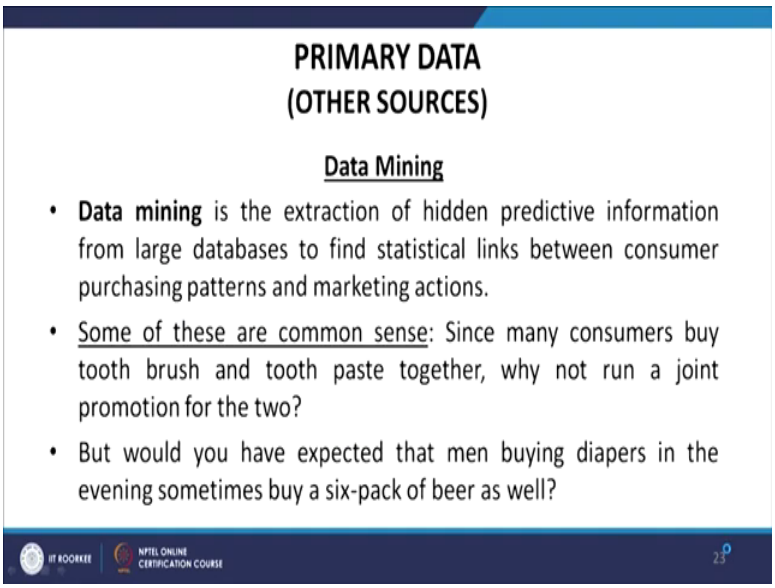

Now, let us look at what is this data mining. Data mining is the extraction of hidden predictive information from large databases to find statistical links between consumer purchasing patterns and marketing actions. Some of these are common sense. Since

many consumers by toothbrush and toothpaste together, why not run a joint promotion for the two? But would you have expected that men buying diapers in the evening sometimes buy a 6 pack of beers also.

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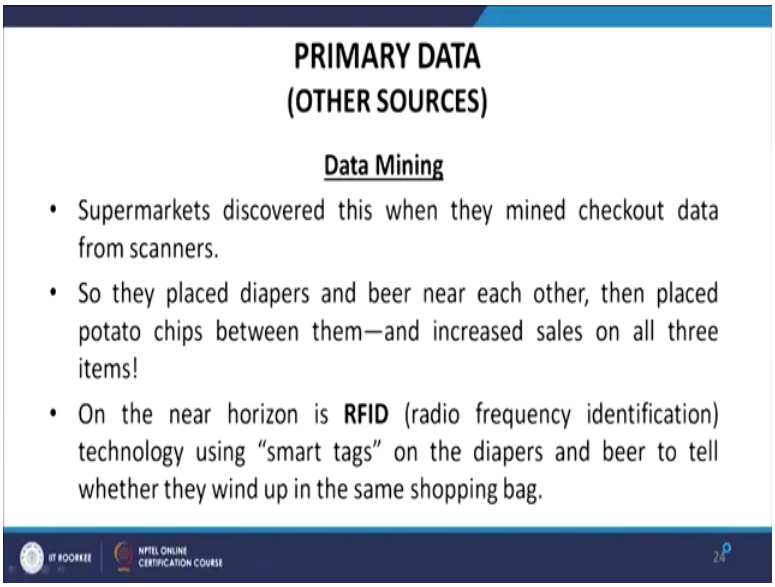

So, supermarket discovered this, when they mined checkout data from scanners. So, they placed diapers and beer near each other, then placed potato chips between them and increase the sales on all three items. On the near horizon is RFID that is Radio Frequency Identification Device, so that is a technology using "smart tags" on the diapers and beer to tell whether they wind up in the same shopping bag. So, now, we have gone a step further. So, now it is easier to see whether the diaper and the beer, they are bought by the same person.

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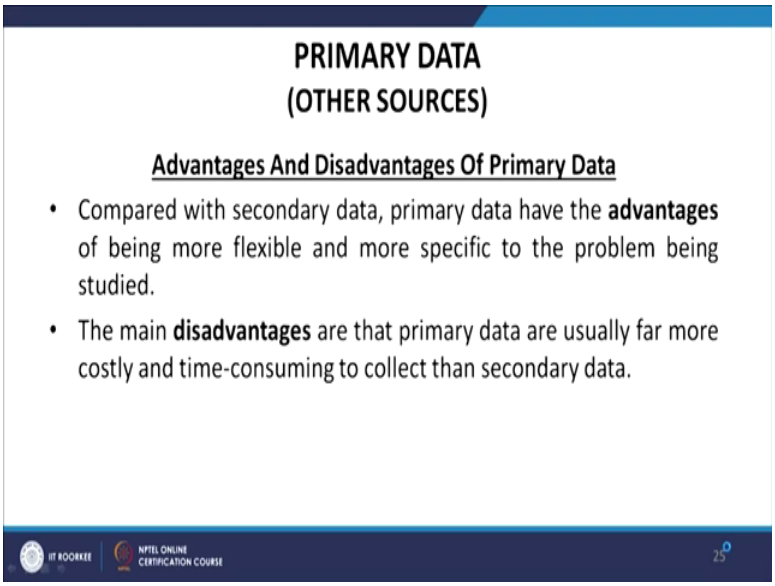

Now, let us look at the advantages and disadvantages of primary data. Compared with secondary data, primary data have the advantages of being more flexible and more specific to the problem being studied; but the main disadvantages are that primary data are usually far more costly and time consuming to collect than secondary data. So, the problem with primary data is that it takes lots of time and money to collect this primary data; but there are several advantages of collecting primary data as well.

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Then, the fourth step of this marketing research process that we talked about earlier was develop the findings. So, this was the marketing research process that we have discussed in the 14th module. Define the problem, develop the research plan, collect relevant information, develop findings and then, take marketing actions. And then, the feedback is sent to the rest of the 4 steps.

So, Mark Twain was observed "Collecting data is like collecting garbage. You have got to know what you are going to do with the stuff before you collect it." So, it is important that you first understand what you are going to do with the data before you go about collecting it; otherwise it is like collecting garbage. Thus, marketing data and information have little more value than garbage unless they are analysed carefully and translated into logical findings which is the step 4 in the marketing research process.

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Now, how to go about developing findings that is analysing the data? Suppose, Domino's produces 3 million pizza a day. Let us see how Manoj Sharma, the marketing manager for Domino's brand, might address a market segment question. Manoj is concerned about the limited growth in the brand over the past four years. So, he hires a consultant to collect and analyze data to explain what is going on with this brand and to recommend ways to improve it.

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So, Manoj ask the consultant to put together a proposal that includes the answer to these two key questions. So, the first question is how are Domino's sales doing on a household basis? For example, are lesser households buying Domino's pizza, or is each household buying lower Domino's? Or both? And the second question is what factors might be contributing to Domino's very flat sales over the past four years?

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So, the facts uncovered by the consultant are vital. For example, is the average household consuming more or less Domino's pizza than in the previous year? Is Domino's flat sales

performance related to a specific factor? With answers to these questions Manoj can take actions to address the issue in the coming year.

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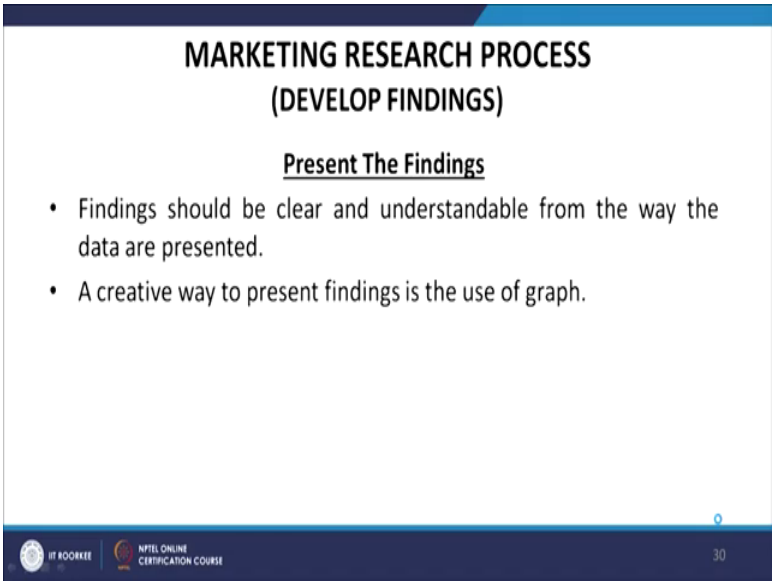

The next is to present the finding. So, finding should be clear and understandable from the way the data are presented. A creative way to present finding is the use of graphs.

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The next step that is the fifth step is taking marketing actions. Effective marketing research does not stop with findings and recommendations. Someone has to identify the

marketing actions, put them into effect and monitor how the decisions turnout, which is the essence of step 5.

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Now, it includes the following steps. The first step is make action recommendations. So, the most important step here is to make action recommendations. The second is to implement those action recommendations and then the third is obviously, evaluate the results.

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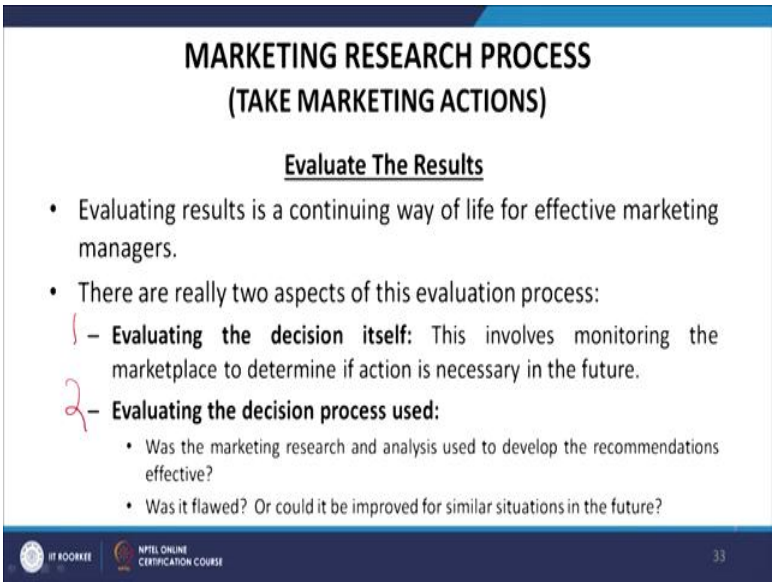

Now, how do we go about evaluating the results? So, evaluating results is a continuing way of life for effective marketing managers. There are really two aspects of this evaluation process. What are these two aspects? The first aspect is evaluating the decision itself. This involves monitoring the marketplace to determine if action is necessary in the future and the second is the second aspect is evaluating the decision process used.

So, these are the two dimensions; one is about the decision itself and another is about the decision process. Now, this evaluating the decision process used consists of two parts; the first is was the marketing research and analysis used to develop the recommendations effective and the second is was it flawed or could it be improved for similar situations in the future.

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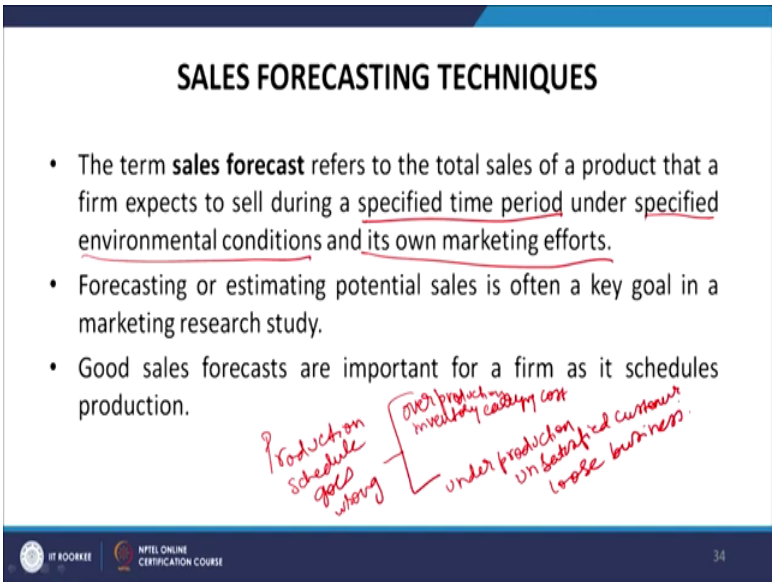

Now, let us look at the sales forecasting techniques. The term sales forecast refers to the total sales of a product that a firm expects to sell during a specified time period, under specified environmental conditions and under its own marketing efforts. So, there are these three things that affect the sales forecast. First is a specified time period. So, it has to be 1 year or 6 months or 5 years, under specified environmental conditions and also, under the firms own marketing efforts, how much money the company itself is investing in marketing. So, forecasting or estimating potential sales is often a key goal in a marketing research study. Good sales forecasts are important for a firm as it schedules

production. If the sales forecast go wrong, then obviously, the production schedule goes wrong. Now, if the production schedule goes wrong, then what happens? So, if the production schedule goes wrong, then it may lead to overproduction. Overproduction means that you are producing more than what you will be able to sell.

So, it means that then, you will have to store more number of units in your warehouses and that increases the inventory carrying cost. On the other hand, you are under producing, producing less than the demand. So, in that case, what happens is that you are not able to meet the demand and that will lead to unsatisfied customers and you will loose business. So, that is why it is very important to have some good sales forecast.

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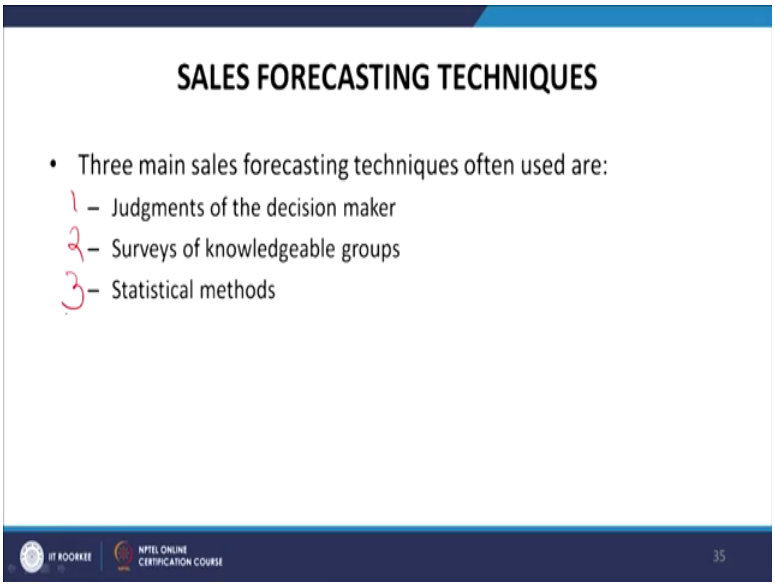

Now, what are these sales forecast techniques? So, these three main sales forecasting techniques are often used; the first is the judgment of the decision maker, the second is survey of knowledgeable group and the third is the statistical methods.

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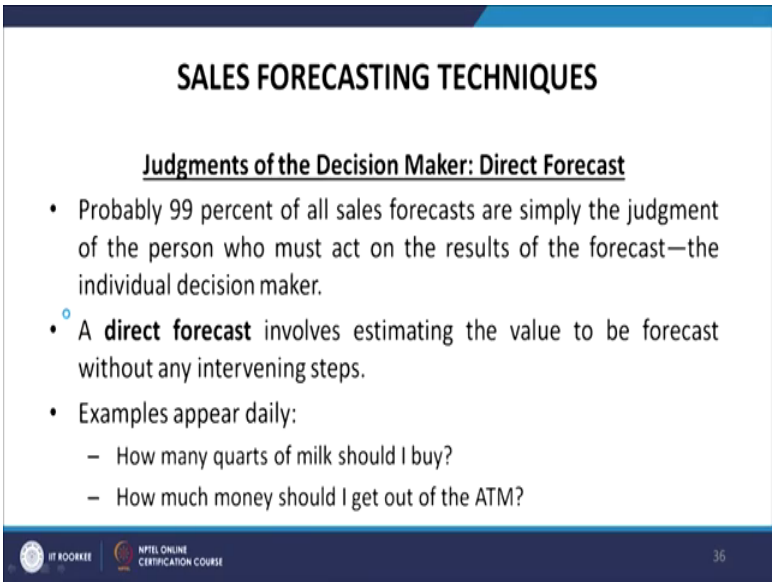

So, what does this judgment of the decision maker means? Now this is called as direct forecast. Probably 99 percent of all sales forecasts are simply the judgment of the person who must act on the results of the forecast that is the individual decision maker. A direct forecast involves estimating the value to be forecasted without any intervening steps. Examples appear daily; how much milk should I buy? How much money should I get out of the ATM? So, that is an example of direct forecast.

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Now, let us move on to the another that is judgment of the decision maker. A lost-horse forecast; so, that lost-horse forecast involves starting with first, the last known value of the item being forecasted. The second is the listing the factors that could affect the forecast, the third is assessing whether they have a positive or negative impact and the fourth is making the final forecast.

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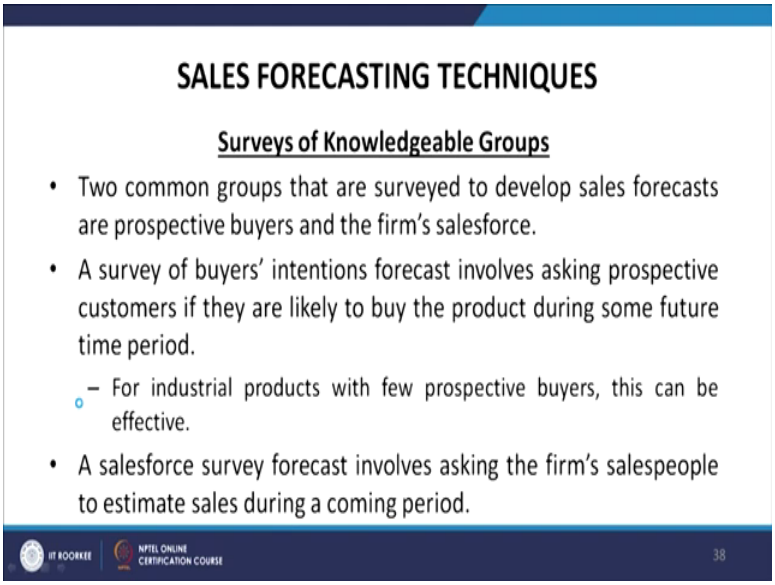

Another technique of sales forecasting is surveys of knowledgeable groups. Two common groups that are surveyed to develop sales forecasts are prospective buyers and the firm's sales force.

The survey of buyers' intention forecast involves asking prospective customers, if they are likely to buy the product during some future time period. For example, for industrial product with few prospective buyers this can be effective and can be carried out easily. A sales survey forecast involves asking the firm's salesperson to estimate sales during a coming period.

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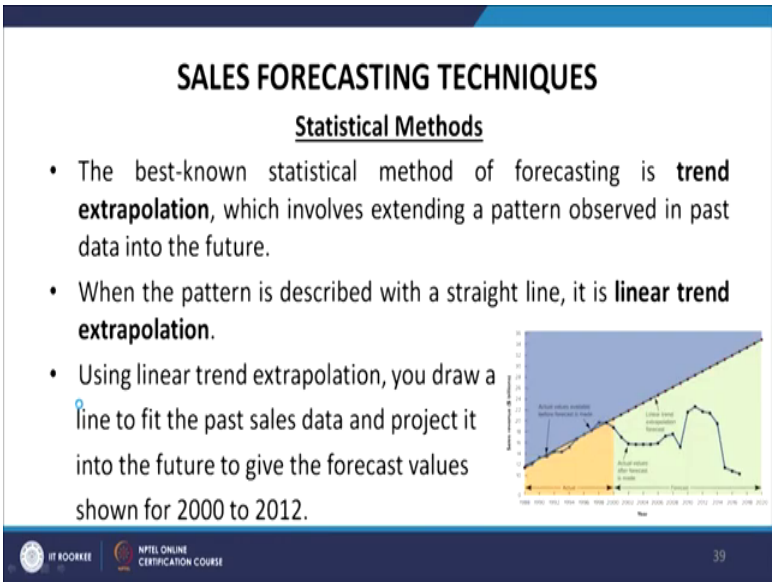

Then, let us look at statistical methods as a sales forecasting technique. The best known is statistical method of forecasting is trend extrapolation, which involves extending a pattern observed in past data into the future. When the pattern is described with the straight line it is a linear trend extrapolation. Using this linear trend extrapolation, you draw a line to fit the past sales data and project it into the future to give the forecast values shown from 2000 to 2012.

Now, in this graph, you can see that years are on the x axis and the sales revenue are on the y axis. So, this is the actual between 1988 to 2000, that is we had this data. This is the actuals variable available for forecast, the rest are forecasted. So, actual values after forecast is made. So, that is the linear trend extrapolation forecast.

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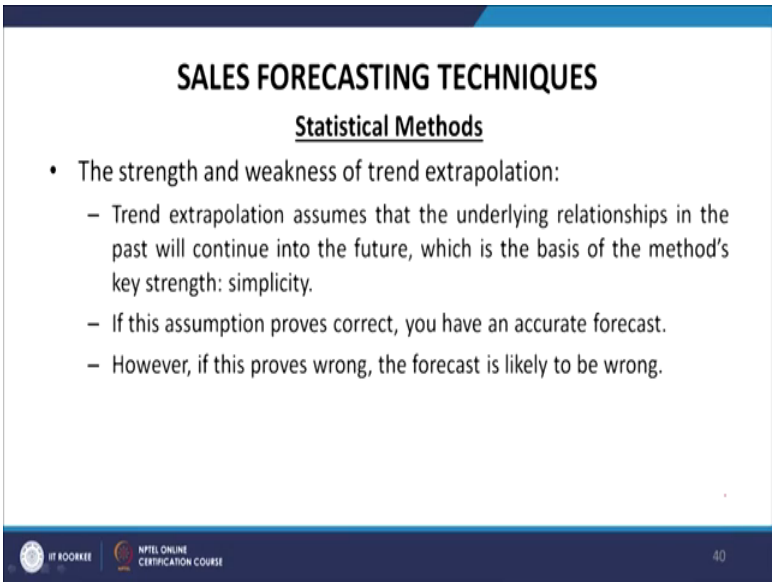

The strength and weakness of trend extrapolation are that the trend extrapolation assumes that the underlying relationships in the past will continue into the future, which is the basis of the method's key strength that is simplicity. The second is if this assumption proves correct, you have an accurate forecast. But if it proves wrong, the forecast is likely to be wrong.

So, in order to conclude, in this module, we have discussed the use of panels, experiments and new data collection method for the primary data.

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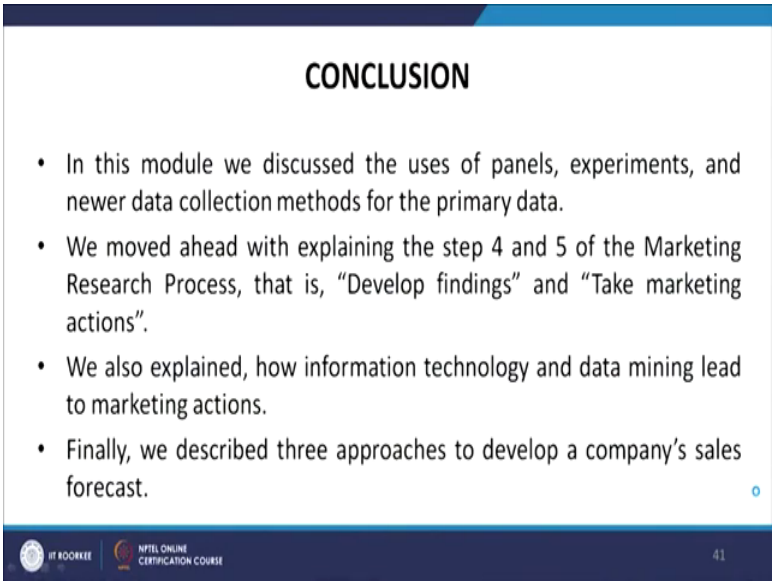

Then, we moved ahead with the explaining of step 4 and 5 of the marketing research process that is develop findings and take marketing actions. We had also explained how information technology and data mining lead to marketing actions and then finally, we have described three approaches to develop a company's sales forecast.

These are the three books from which the material for this module was taken.

Thank you.