#### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

# NPTEL NPTEL ONLINE CERTIFICATION COURSE

#### **Marketing Research**

### Lec -02 Defining Research Problem

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Welcome everyone to the second lecture of marketing research analysis right so in a introduction we discussed about what is market research what is marketing research how it is important and what is the role of research in it how farms have made advantage of by using research properly and some who could not use research how they met with a big loss right even so it is very clear that research is required there is no tough that there is no question in mind that without research we can leave in this competitive world.

Because every other day you see companies are coming with new products competitors are coming with new policies everything is coming up so if the form does not understand key how it would be able to beat or you know how it will be able to find a gab in the market then it becomes a very difficult proposition so research becomes very helpful in this whole process right so I we will go through in the today's lecture about how to first identify you know they say some times that if you have identified your problem well you have done most of research.

Or a substantial part of your research right that means if a problem as not been defined a problem is not being explained properly then that problem is very difficult to get a result can you know it is becomes very complicated right you can in the personal note I can tell you an example of one of my friend how was doing his PhD with me and suddenly after 3 years he realized it is that he was not able to get data on his topic right.

His research design was not the right one he was thinking as he was thinking so as a result what happened after 3 years he had to change his research topic in PhD so that is a very dangerous thing, in today's world you cannot effort such a you know waste of time right so let us see how do you define research problem but before we do that we will go into the steps of the entire

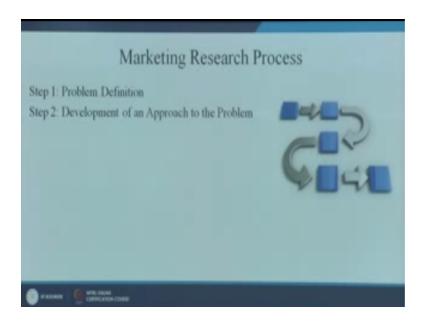
research process right so marketing research or any research for say as got several you know steps the steps we say steps.

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So to start with it is the problem identification to start with the problem identification so you have to identify as a researcher you have to identify okay what is my researcher which I am going to do right so let us see so problem definition.

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So what is am I doing and am I going in the right way or not that is the secondary thing which will come so development of a approach now if I if this is my problem for example just now my student was saying staring a laptop takes sometimes time you know starting a mobile take time so when you do this is that a way that compotation you know the forms will competitors will want to bring in this time of starting of function or starting the laptop in a very little time.

It shapes time in earlier days if I remember it used to be like you know moving around and around so that it you should take a minute or so to open up so now a days it has become much faster but cannot be still faster is a question right so may be come tomorrow forms can competed in this phases right it becomes competitive strategy and advantage for them so what is how do you do it so to do that you have to understand what is that path that I will approach that what is the path that I will take in order to solve this problem.

I have identified the problem I told you about for example TATA is TATA found that in India the streets are congested and if the streets are congested then there is a problem of travelling they came off with the solution that identified the problem and okay with the solution similarly many other firms have done it and there are so many examples right so once you do it the second step is the design.

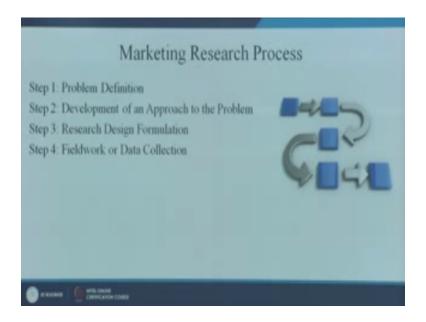
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Which I have said as the approach right, development of an approach to the problem you have to go to Delhi from here you can go through several days but one might be very long the other might be moderate the other might be much shorter, so which is a right path so everybody would try to optimize the resources and utilized the best possible way right, so resource design is nothing but you can say it is a blue print it say blue print or a map you can say a path right which basically helps you to understand.

What is the right approach what is the right way of doing a thing okay second once you are done with it, I will explain the types research design maybe a little later right.

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So once you formulated the research and the step which comes in so you have to formulate the research design right.

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So that is what I am saying then you have to understand q what is my data for example to do anything for analysis for example I need the data right, okay so what is the data I need for example if I am doing a study for example let say q why do people how do people in a store behave for example let say to do that I may require the people's observation I would need to observe the people and stay k actually what they are doing.

Maybe they are liking one product but they are buying another so may be this is because of the price maybe this is because of the placement of the product in the store it could be anything okay, so to do any analysis I need the data so data collection which I also said there data collection okay, becomes very important factor right so the question is as I said I can have a primary data I can go to the field collect the data or I can use the data of which is already existing which is called basically the secondary data.

For example let say the stock price of a company or the you know the last year results of a company the profitability the market share and all these things of a company or let say key if I have seen if I have some earlier data base of people who are purchased bullet and field bullet for example so I know key what is the mind set of people who are what is the demographic variables are what is the physiographic variables are what is the characteristics of people who are buying bullet, so if I can correlate to keep people who are buying bullet will also tend to maybe they will buy let say a jeep so if the data base of bullet I have I can use it for jeep maybe right, it is

correlation right so you have to understand key how is your data there and how it has to be

collected.

Then but I say is one of the most important generally people evolved this is mostly all

researchers avoid they try that thing it is not so important which is the data preparation now a

data is something which is very raw correct it is very raw nature so the data base will make no

sense until and unless it is being properly it utilize okay.

So you have to prepare the data. Now for example, a data which is let us say in a binomial form

or let us say in a non-matrix form will have very less you know ability to explain right, if it

enters more in a let us say in a normality, in normal form, in normal distribution form or you can

say in a matrix scale for example those data have larger explanation power, okay.

So as I said if a data let us say is in 1,0 yes, no right, another data is in the form of let us in a

interval for example let us say 1,2,3,4,5, 1 meaning very poor right, and let us say 5 meaning

very high right or very strong for example. Now you have this data obviously this data has a

larger explanation power than the, you know the one which is in the dichotomous form yes, no or

something, right.

So we will go slowly into these things right, and finally is the data report preparation is very

important sometimes people think key the report we will do the work and the report is not so

important because it is, it can be done by anyone no, it is not that. A good report is equally

important because at the end of the day this is the result of your hard work, so if you have not

done it well maybe it will be not liked by many okay. Now let us look at this, so what is this guy

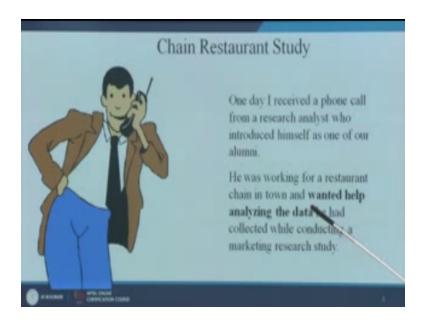
thinking.

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He is confused, he is thinking where to go, what to do right, so the point is he all come into such a position in life once at least right, not once many times in fact so in such a condition this is the condition where it is becoming important to he is trying to identify the problem, what is the problem, where is the problem he is thinking right, so this is one case, this is the case which is very important let us see what it is happening here.

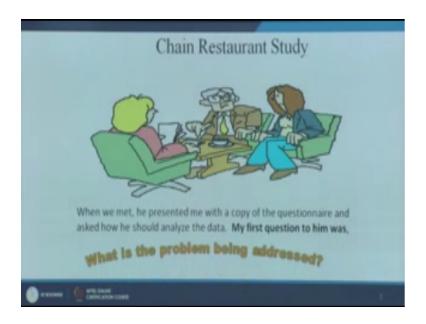
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One day the guy says, I received a phone call from a analyst who introduced himself as one of our alumni somewhere right. He wanted help on analyzing the data what is he saying, he is saying that let us once again use this, so he wanted help on analyzing the data he had collected while conducting a marketing research study, I am sure researchers, students even you know executives they must be facing this problem.

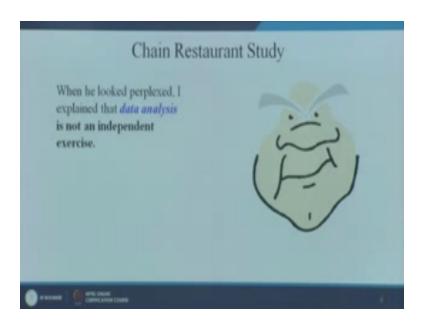
Sometimes you collect the data but then the data has been collected in a format which is very clumsy, which is very difficult to understand and which I have seen 1000's of times and sometimes you come up with the data and say please analyze the data for me, so that is very difficult did you, you do not understand how to help somebody with analyzing the data right, so what has happened.

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Now there is a group of people intelligent people right, and now thinking what to do, we presented with the copy of the questionnaire and ask how we should analyze the data, questionnaire is the format is a way of collecting the data is a structured format you can say right. So the question to him was what is the problem being addressed, what is the problem, what are you doing going to do with this data, what are you trying to address, so we should do not address understand the problem being addressed then your research is of is very difficult you cannot, you are going to land up nowhere, okay. Now the same case you see.

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He explains that data analysis is not an independent exercise this is very important which I am going to repeat now data analysis is not an independent exercise pleased remember it, why? Because if I am teaching marketing research I am more I am concerned about the consumer the market and then you know all the things functional areas which I have connected with the marketing like product promotion price and all these things.

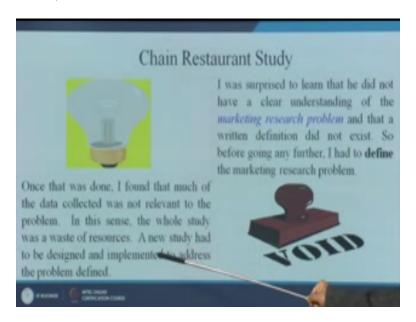
But suppose your objective is something to increase the efficiency of a machine then that is the different kind of research which is the operation research for example or somebody is interested to understand the volatility of the stock market then that is the third different you know kind of research where you are trying to understand how the financial market moves for example. So understanding the object as for example you see sorry data analysis will not be useful until unless you understand what is it is meant for.

So sting a course of data analysis does not mean anything does not make a since until unless you connect it with for example we say marketing research and consumer behavior, so consumer behavior is determine through marketing research. Understanding the market share or the market potential through the market research though these are something connected with markets. So wherever there is a consumer there is a kind of you now potential gathering so you think of how to increase the market share and all these things and there you use marketing research?

But otherwise it could be an operation research it could be a system research it could be something like a financial research right so what are you exactly doing so the goal of data

analysis is to provide information related to the problem components so are you clear with the problem components? The first question comes to the mind if we are not clear with the problem components then we would never be able to reach to a solution okay.

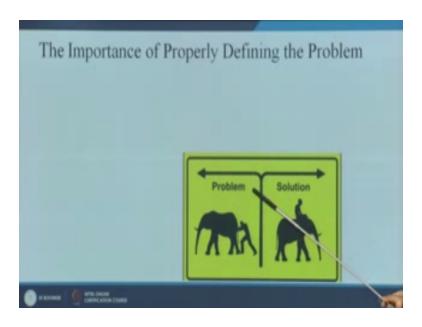
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I was surprise is says that it not have a clear understanding of the market research problem and retain definition did not exist; now what you mean by why is the write definition so important? You see for any Phd topic or any ethics or anywhere if you see why do we ask for a topic name of the topic in a nutshell it tells the whole story behind the 200 page volume or 120 page 150 page volume report what is the whole thing all about in one line so if you are not able to define your problem or given name to it properly then that means somewhere we are not clear okay.

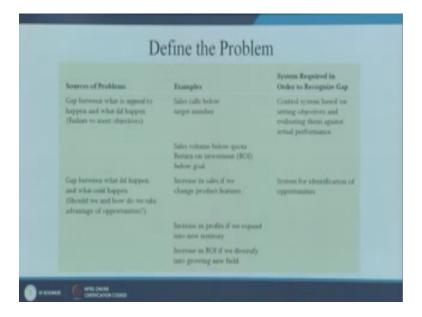
So I had to define the marketing problem he says one that was done I found that the data collected was not relevant to the problem so all the efforts they went in to vein in to futility that means your efforts where waste you had done all the hard work and now it is of no use a new study had to be design and implemented to address the problem, so can be understand how the gravity or situation is there right. The importance of properly defining the problem.

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So problem one is moving this side the other is sitting on the elephant and he is trying to thinking of the solution by moving this side this is possible ever two opposite directions for the same problem, it is never possible it is going to happen right.

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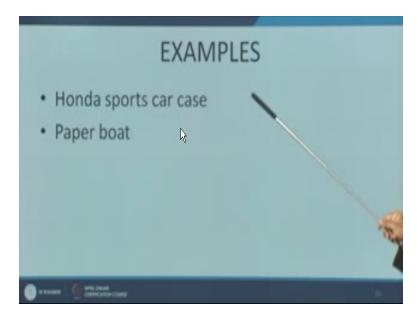


So source of problems so sources of problems could be the gap between what is suppose to happen and what did happened, failure to meet objectives, you can you know identify a problem through several ways through discussion with experts through reading literature, literature review and then understand what is the gap lying in the whole process so and what it happen right for example sales calls below target number the problem is there is a sales call which is below the excepted number right?

Sales volume below quota or retain on investment below the decide target right so to understand this problem to define this problem the company wants to know how to address this now, \the second is gap between what happen and what could have happen? Suppose let us say as I said in my first class suppose I have priced at this stick at 100Rs but people are ready to pay 120 Rs and I have sold 1 lakh product of it 1 lakh pieces of it.

So every piece I have missed 20 Rs so that means I have without any problem without anything I have just lost 20 lakhs simply right so one has to define the problem in way what increase sales for example if we change the product features suppose for example the change is product design the packaging and towards display it found that people did not like it because they made triangular packet which was effecting the children the small babies the sometimes they were playing and they hurting themselves.

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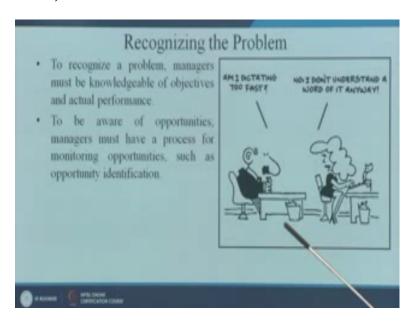


So such kind of designs where more determinant to the market okay so this are the some of the things which examples to how do you define right I have take this Honda sports car I will try to gave this case Honda's are mother of diverse said to the children were getting effected while driving a adventure sports car and they should provide safety.

When they Honda did it they found that the sales went down why did happen when people were asking so why did sales go down the simple reason was that the drivers who were the min influence that he is the fund as if by giving the safety you have reduce the fund and if there is no fund then why should we drive the adventure sports car.

So the company if it realized he now that domestic but not take to cognizant paper boat is very interesting Indian start up in company which takes you across to your childhood days and tells you what are you missing today a price to identify the problem that people are that today for example people are stressed they are leading a very stressful life and in this they are trying to give them something connect them something with the childhood thoughts and you know memories.

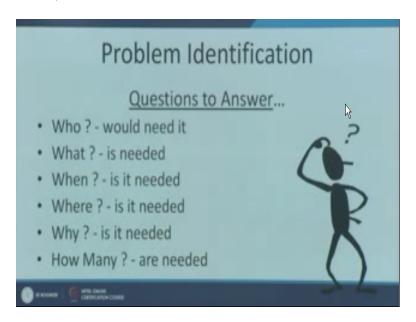
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So this is very again interesting case recognize the problem you can said this am I dictating too fast the guy is asking no I did not understand the word of it anyway so sometimes you can there is a big mismatch okay to recognize the problem managers must be knowledgeable of objectives and actual performance you should know what you are actually doing you should be able to

define your problem right. To be aware of the opportunities you must have the process for monitoring opportunities to identify the opportunities okay.

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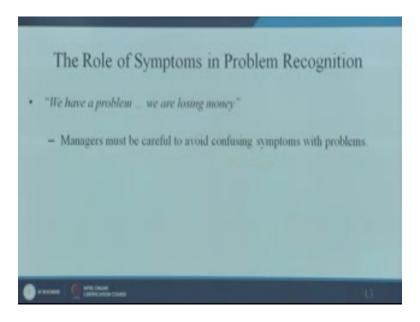


Questions and answers few answer relate this questions you are in the right path okay who, who would need it the question the marketer should start with this who I am going to do this research for what is needed how do I go about it what is needed when, when it will be required by the people or the consumers where why and how many.

For example if one can answer this questions then it so happens that it becomes much simpler if you can answer this question sit becomes much simpler to you know have a target as I started with if you have your problem of producing your let say no that people are not happy with the too much of time being taken to open a laptop.

To start a laptop now that is the problem so the company is identify this problem we can come with the solution right so who is the person is asking nod what does the need when they need and how does it needed all this questions have to be answered okay .

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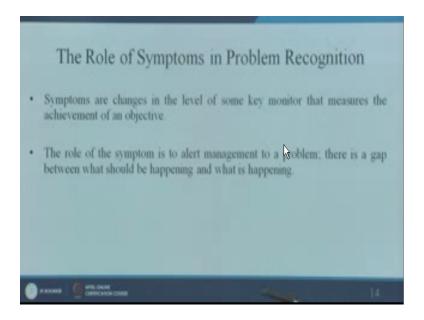


There is a something call you know manager must be careful to avoid confusing symptoms with problems this is very important so few are the student or a manger does not matter you should be able to avoid the confusing symptoms that has sometimes symptoms right we have a problem we are losing money on it is not a problem it might be the symptoms.

So with the problems might be somewhere else so maybe you are doing something for example let me give this example that it is core competency was you know the hardware and not software as a result they gave the software part two the outsource the part but in a few years time IBM realize that they made a biggest mistake of the life.

They had given up all the core competency and now they were nothing else so as a result it so happened that it also that it also gave away it you know the hardware part of the went away from them so it should understand that the symptoms difference from the problem please be very careful with it.

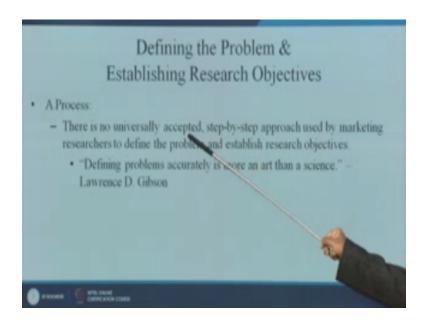
The symptoms are changes in the level of some key monitor that results achievement the role of the symptoms is to alert management or it does not gap between should be happening and what is happening okay. (Refer Slide Time: 21:47)



What is the role of the researcher so if you see so the researcher should ensure managers are defining the problems correctly right so the this is particularly important because if you are not defining your problem correctly right, then the researchers should take some additional investigation like Sherlock homes, we should try to find out some other like how to, what is exactly the situation right, which is known as situational analysis to ensure that the problem is perfectly defined.

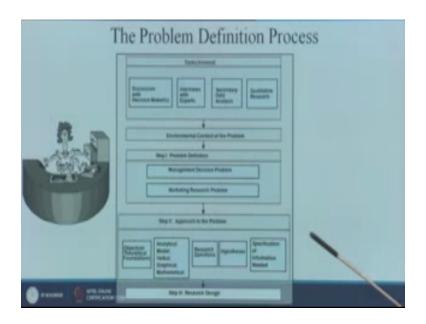
See what I am trying to tell you here is one way to understand there is the difference between the symptom and the problem and you need to define the problem more accurately right. What are the problems? Generally people love their ideas too much, I would request you all researchers do not love your idea too much, it is not necessary to love your idea, because if start loving your idea too much. Then you will become blind to many other things that can be possibly done okay.

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A process there is no universally accepted step by step approaches by marketing researchers right, defining problem accurately is more an art than the science say Gibson. It is not a science that you can say that step by step this will happen that will happen, no it is not possible, it is more a art. How do you design it all together?

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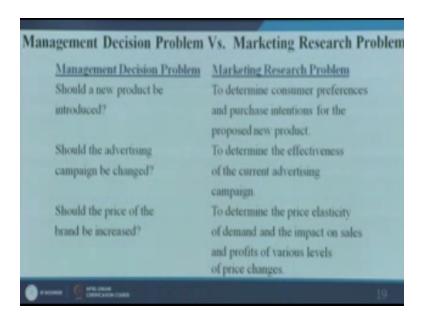


Now this is entire problem definition process. If you look at it if it is clear, so how are the task involved. Discussion with the decision makers and for example if you are a manger it is a different thing, if you are a student you have to discuss with your guide. What I am going to do? What is the decision that is required, what kind? Then the tasks involved are involved interviews with exports or primary data collection or may be a secondary data collection.

Then analyzing the data or do some kind of quality research for example. The environmental context of the problem is also important. So in which context are you doing suppose for example how much of time is there in your hand? How much of resources are there in your hand? So if you had the limitation time and let say money for example, then you have to understand what the major failure is.

What boundaries you have to confine to okay. For example there is the interesting debate on this; you see management decision and marketing decision are two different things okay. So this is the objective theoretical foundation how it approaches for example if I will tell you the difference in manner. Where you have to 1<sup>st</sup> define the problem and then identify it and then you know read literature or create some theory behind it, the love the hypothesis or research questions. As it say hypothesis research question that is required behind it okay.

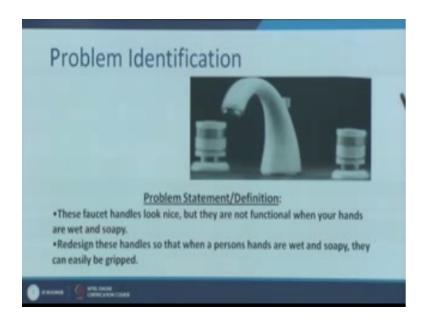
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As now as I was saying there is the difference between the management research and the marketing research. Now management decision is larger perspective right. Should a new product be introduced, should the advertising campaign can be changed? So the price of the brand be increased. On the other side marketing research says, to determine consumer preferences and purchase intentions. What are the purchase intentions? Determine the effectiveness of the current advertising.

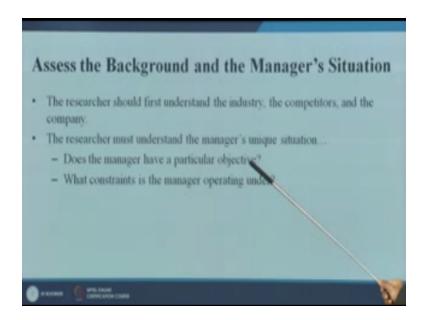
How effective is the current advertising right and determine how if you remember I told you in the first lecture, so that people are very sensitivity to certain products, the price changes in the product right. And what is your product accordingly you have decided.

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Now let us take this case of a form which is manufacturing these pipes okay tap basically, so the problem statement these faucet you handles look nice but they are not functional, when your hands are wet and soapy. So what is the solution we design these handles, when the person's hands are wet and soapy they still can easily be gripped. So as a result when you understand the problem more clearly, you have the better way of thinking. You can get a better solution obviously right.

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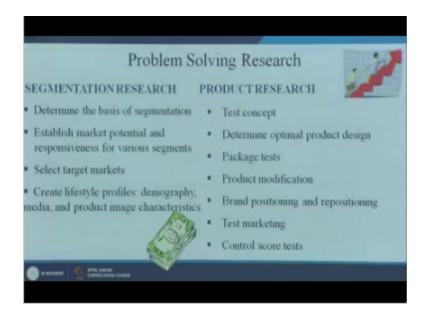
Now assessing the manager background and the situation is also critically important, you have to understand which Industry you are operating in right. Who are your competitors in the company right? Does the manger have the particular objective because there is, and this vehicle could maneuver could you know move into the any line of a any place in India because India being very consisted place so and this product that the reason became extremely successful right.

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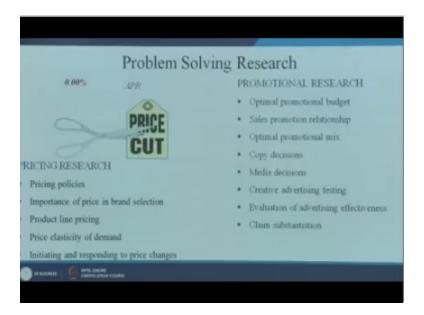
So as I said these are the problem identification in problem solving research so which side equally they both important.

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Okay I think we have gone through this for example the test marketing for example I remember the time when nestle was doing its test marketing for the magi right and when I was in school obliviously right so when they doing the test marketing they were trying to influence they were trying to see whether the market would be readily excepting the products are not sometimes if you do not do it you are surprised because the market rejects your products because the market rejects your products right very dangerous okay so all this you can see right product modification package test and all very important okay.

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Similarly the pricing policies what is the pricing policy if you underperform if you under price the product you are losing valuable money if you over price you will miss out on the customers right so you will miss out on the large number of potential customers who could have purchased your product but now they are not but now they are not there with you right so that is also very dangerous elasticity of price is extremely important in the market because again that happens consumers in some cases depends on the type of product obviously in some products they are very sensitive in some product they are less sensitive.

So if you are in a sensitive product the firm is working in sensitive product and they play with the price it could be either very positive or it could be negative one can be very careful so all these needs research all these need data all these needs to be you know one to see very detailed but any research will only happen when you are very clear what is your objective right what is your objective and how to move further into that right okay I think what I can do I this will be my possibly lie last slide of today and then we will may be carried on to that class okay.

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So if you can see this is a whole in a holistic way I have tried to show you this is marketing research and this is the factors that affect uncontrollable factors that affect the marketing research for example you economic condition that demonstration happened recently and that affected many components for example the Bajaj says there is there were heavily affected because of demonstration people did not have money right okay.

Technology lose in regulation political factors controllable prices variables are your because it is hands of the company right they can do a good research and find out what is the optimum value for it the groups customer groups are who are involved other consumers employees shareholders suppliers and all this marketing managers have to look into the segmentation the target market the programs performs and control so how do you at the end you have to monitor your performance and to have a control over it right okay thank you so much thanks for the day we will meet in the next class of marketing research analysis thank you so much.

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