Behavioral and Personal Finance
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Lecture – 12
Beliefs, Biases and Heuristics

Hi there, welcome back to the course Behavioral and Personal Finance. Let me begin with this session with a simple question. Have you undertaken a course by a professor in your university or a college? Well, if you have not performed well in that course; did you try to take another course by the same professor? Well, think about it and then try to connect with whatever we are going to discuss in this particular session.

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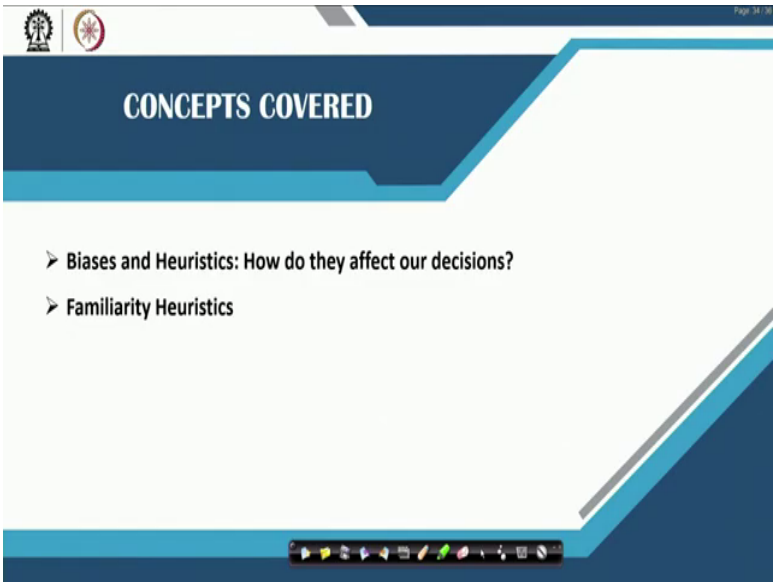

This session we will focus more on Beliefs, Biases and Heuristics. We will touch upon two major topics. How beliefs and biases and heuristics affect our decision making and we will

also touch upon some of the heuristics that significantly affect our understanding of a problem scenario. Let us start with understanding how beliefs and biases can influence our decision making process and why it is important to understand those biases and heuristics in the context of financial decision making.

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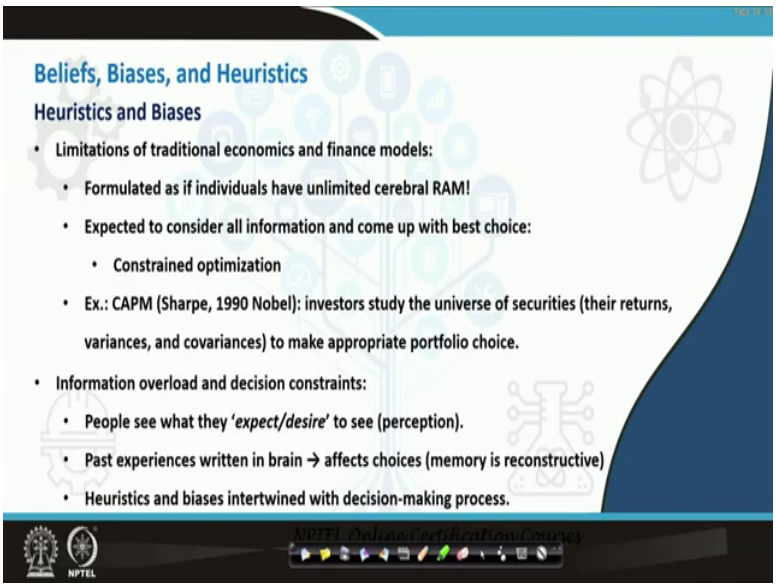

When we talk about heuristics and biases basically, we start with the argument that most of the traditional economic and finance theories are developed with an assumption that individuals basically considered as economic agents are blessed with unlimited cerebral RAM which is basically Random Access Memory. It implies that the economic and finance models in traditional framework assumes that people can process unlimited information and they can take complex decisions in a flash.

When we connect this theoretical argument with the realistic situations, we realize that we are blessed with limited information processing capability and we cannot take complex decision quickly. For example, if you like to play puzzles; you can play puzzles and in your leisure time and perform really well, but when you are asked to play the same puzzle while taking the stairs probably you cannot perform equally well.

The reason is your brain is preoccupied with puzzles and at the same time part of it is occupied with you taking the right stairs. Now, when your brain is divided into two different tasks each of which take equal or rather more or less amount of your brainpower probably your decision making gets influenced.

Similarly, when we talk in terms of financial decision making, we can contextualize the same argument when people are preoccupied with some other task and they are given an additional task to perform be it buying or selling a share or deciding whether to invest in a particular investment of venue or not; their decisions are always influenced.

At the same time we have already learned that scenarios or the context in which the problem situations are given also effect the decision making process. We have already seen through examples that peoples past experiences also affect their decision making process.

Now, if we take a simple example of one of the best or most used finance models which is known as capital asset pricing model. Now, capital asset pricing model is used to explain the return expectation of investors as a function of the minimum risk free rate of return and how sensitive that particular investment is with to the market return.

Now, this capital asset pricing model also known as CAPM given by Sharpe in 1990's Nobel laureate. It shows that or rather I would say it is based on the assumption that investors study all the stocks available in their investment universe and their returns associated variance and covariances. Now, if you start with a small market such as let us say nifty. So, Nifty has 50 stocks, you will have 50 stocks their returns for several periods, their variances and

covariances. So, you will have so many data points to consider before you finally, arrive at a optimal portfolio that will fit into your investment objective.

Now, we realize that this particular assumption of investors being able to understand the universe of investment opportunities is not right. Let us try to understand how this kind of behavior be influenced by their several context or several heuristics and biases. One of the major reasons for people not being able to take complex decisions is information overload.

We know that we are bombarded with lots of information and our mind is not able to take all the information into account before making a decision. In general, when we have a lot of information around us, we see what we want to see or we expect to see and this is basically referred to as perception. For example, you see pattern in something when there is no pattern at all. So, similarly if we had some relevant past experience that past experience can be written in our brain and that affects our current decision choices because memory is reconstructive.

These kind of factors such as past experiences or our perception and memory influence our decision making in terms of forming the heuristics and biases because these are intertwined with our decision making process at every point of time.

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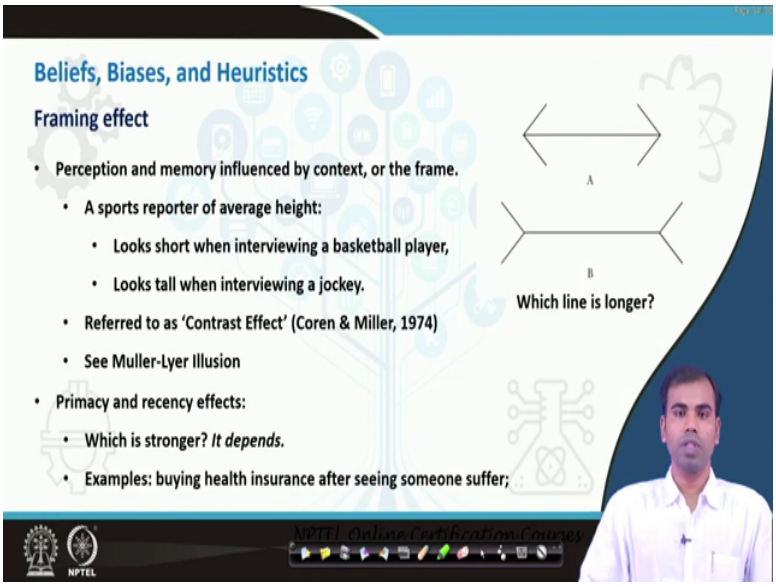

Let us say one of the heuristics and biases that we have already touched upon in the context of discussing prospect theory is framing effect. We have learnt that presentation of outcome, perception of decision maker and the personal characteristic of the decision maker can influence the final outcome or the choice by the decision maker.

So, if we see framing effect in a more detailed way, we understand that perception and memory can be influenced by the context or the presentation of the situation. One non-monetary example here could be a sports interviewer or a sports reporter on of an average height reports or interviews, let us say a basketball player and in some other point of time he or she interviews a jockey.

If you look at the video or images of this nature where a sports journalist interviewing a basketball player versus the same journalist interviewing a jockey player, you would realize

that the person the sports journalist looks short when he or she interviews the basketball player and he looks tall when he or she interviews jockey in that situation. Now, that persons height is not changing, but the context is changing and that is why he looks differently into these two context. This is also known as contrast effect given by Coren and Miller in 1974.

A similar example could be given through Muller-Lyer illusion which you must have come across, if you have not let me try to show you this illusion here. There are two parallel lines on the right hand side; if you look at the screen, you see two parallel lines with arrows attached to it at each of the two ends. Now, if we ask which line is bigger or which line basically seems to be longer, you can try to see and answer this particular question.

Apparently if you look closely, you will realize that both lines are of equal length only the context is changing and that is why it seems to be longer in terms of line B. Now, this is one of the illusions that we often come across and this kind of illusion or the change in context affect our decision making processes. Now, you may ask how to identify or how to come across similar situations when we have decision scenarios in front of us.

Now, before we go to answer this question let me try to highlight some more similar, but contrasting examples. So, two of similar effects could be primacy and recency effect. So, primacy effect basically is when you stuck to the things that you first come across and recency effect is basically the situation where you are stuck with the scenarios or the options or the context which has been the most recent in your experience.

For example, if you will look at the list of stocks listed in stock exchange, these are arranged typically in an alphabetical way and if you observe closely you might see that in some markets, there are more trading for stocks whose name starts with a, b, c, d and so on. And as you move further in the alphabets, the trading volume or the interest of investors might start reducing.

Now, this cannot be generalized as of now, but we can say that if you have a list of alternatives in front of you and you are asked to make a choice as you move further in the list, you probably would start getting bored or getting tired and your cognitive abilities start

reducing. And, that is why probably you do not want to look at the later part of the alternatives as seriously as you have seen the former part of the alternatives and this further declines your decision making abilities.

We can also see in terms of recency effect when people buy accidental insurance or health insurance when we see someone else suffering from some accident or some health issues, because they have seen some recent incident and their decision is influenced by their recent experience. Similar experience can be observed in marketing when companies promote different products and they try to influence the decision making of buyers.

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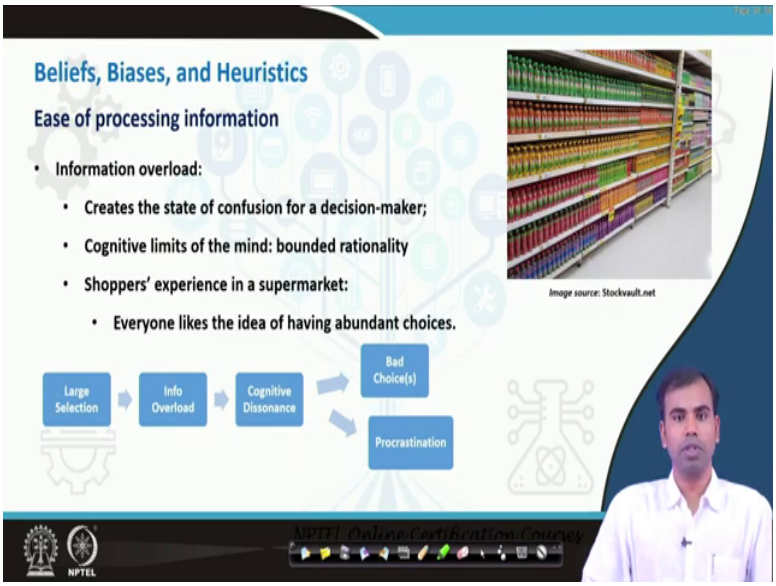

If you look at some example which basically explains the overload of information for individual investor or individual decision makers, we can see that ease of information processing is very important for a decision maker to make the right decision. When we talk

about information overload, we know that if we have lots of information it creates and a state of confusion for the decision maker and it puts certain cognitive limits. Because, we are suffering with bounded rationality or rather I would say that we are having limited information processing capabilities and that is why when we are overloaded with information, we do not process it appropriately.

One of the experiences you must have come across of this nature is when you go in shopping aisle for buying certain products in a supermarket. We all know that having more choices in our life is always better, but when it comes to decision making particularly the appropriate or more justified and rational decision making having more and more choices would create the situation further complex.

For example, if you have walk through the aisle of a shopping mall or a supermarket, you must have come across a variety of products of similar genre and that definitely makes our decision choice more complicated. So, when we try to explain this phenomena where we have difficulty in making the right choice, it is basically followed by certain behavioral issues. So, we know that when we have large amount of information from which we have to make certain choice, we are in fact, overloaded by the information and that basically creates certain cognitive dissonance.

So, cognitive dissonance is behavioral phenomena where people try to avoid conflicting choices and they try to identify or find certain shortcuts to arrive at a decision. So, when you are overloaded with information and you suffer from cognitive dissonance you either make bad choices which is basically suboptimal decision or decisions which are not really in your best interest or you tend to procrastinate.

For example, if you go to buy a health insurance and the health insurance salesman or the person who is intending to sales health insurance to you. Present or load of information in terms of several forms and documents and terms and condition listing to you and want you to read thoroughly before you actually buy the insurance.

When you face this kind of situation, you either do not want to go through all the disclosures or terms and condition and just sign which might not be really a good decision in terms of financial decision or you tend to procrastinate which means you can just differ the decision for now. Because, you believe that when you have more time you will go through the disclosures and terms and condition properly and then make the decision.

So, having more and more choices would not always be helpful. But, as we have discussed in previous sessions having more choices can be beneficial for retail and individual investors and households if we exercise certain tools such as self control before we make the decision.

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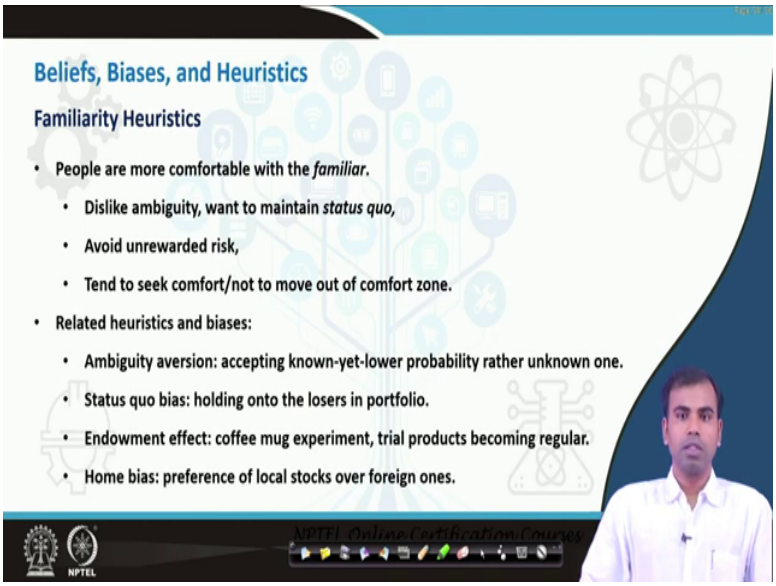

Moving further taking the issue of information overload and cognitive dissonance, we try to understand what are the heuristics or biases that we typically tend to face. One of the initial issue that we face when we are going to make a decision is familiarity heuristics. We all know

that we love being in comfort zone and we tend to like the familiar. Basically, we do not want to take uncertain or ambiguous choices, we basically want to maintain the status quo and avoid risk or basically avoid the risk of unknown. This is basic human tendency.

Now, if you look at the cognitive biases or heuristics that apparently creeps into our decision making process because of this familiarity heuristics, we can identify several heuristics and biases in here. Some of the heuristics and biases originating from familiarity heuristics can be identified as follows.

So, when we suppose you have multiple choices to choose from and each of the outcome is associated with certain probability. If one of the outcomes does not have very high probability, but you are not very familiar with that particular outcome, you would rather tend to choose an outcome with lower probability, but known in terms of familiarity. And that is why, how you make the decision making process simple and easy for yourself which basically leads to a phenomena known as ambiguity aversion.

Individuals and households tend to avoid ambiguity and that is why they choose suboptimal decisions and thereby make certain economic compromises. Another bias or associated heuristics can be status quo bias that we have already discussed. It implies that you hold on to the situation wherein you have been for quite some time and do not want to change. This phenomena can be observed in people holding losing stocks. When the value of shares, they are holding keeps declining they do not want to sell it could be because of loss aversion, but this is also associated with the status quo bias.

A similar example we have seen when we discussed the experiment conducted with the students where a coffee mug is given to them and asked to trade this coffee mug for a price and they started quoting higher price than the actual price of the coffee mug in terms of endowment effect. This is again coming from familiarity heuristics because you are familiar with the product that you are holding and that is why you are giving it higher or lower value depending on the context.

A similar phenomena can be observed in your personal finance decision making where let us say some company is giving you a trial product and you get used to of using this particular product and start using it regularly. Now, this product might not be the most optimal product for you, but since you have been familiar with that particular product, you do not want to change that status and that is how endowment effect creeps into your final decision making.

One of such biases originating from endowment effect or familiarity heuristics is home bias. We all know that we tend to choose things which we are familiar with and this can be seen in stock market where people start investing or like to invest in companies they are familiar with in terms of the management of the company or the location of the company or maybe the product range of the company.

So, as they are familiar with the company and its culture and products, they prefer investing their money in those companies stock rather than companies which are unknown or unfamiliar to them. This is very much seen in terms of retail shareholding participation in indigenous companies rather than MNCs or foreign companies. All these biases and heuristics are very important in terms of making an optimal decision and we will discuss with more contextual details in a future sessions.

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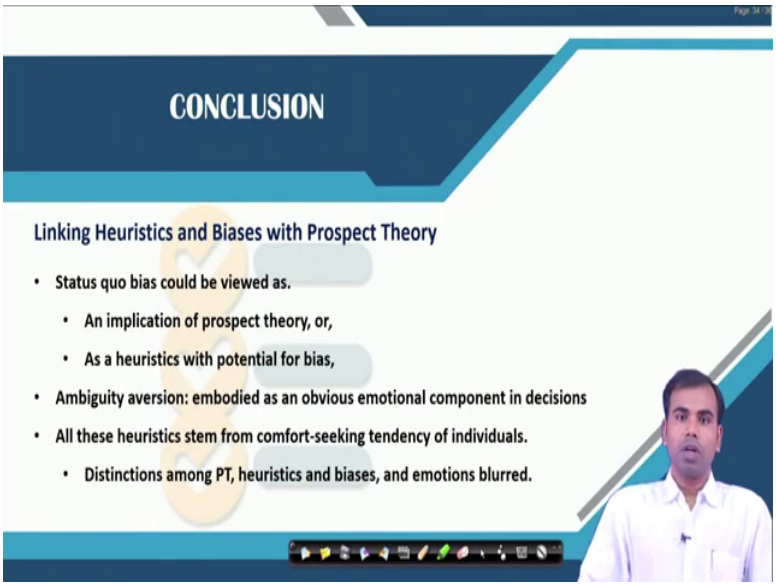

For now we have understood that these heuristics and biases are actually based on the prospect theory which could be viewed as an implication of the prospect theory assumption which says that people behave differently in different situations, because they see risk and uncertainty differently or it could be considered as heuristics with potential for bias. Now, ambiguity aversion or as embodied in emotional a component in decision making or it could be home bias or endowment effect. All these are possible biases which could influence our decision making.

And we know that these heuristics and biases stem from comfort seeking tendency of human being which is basically the original idea of Charles Dakin who says that human gene is basically selfish and it does not want to change the comfort zone where it have been surviving for quite some time. As a closing note we would say that distinction between prospect theory heuristics and biases and emotions can be very blurred and we cannot discriminate between

each of them rather we should try to focus on understanding the implication of all of them together or individually on our decision making to make sub optimal choices; that is all for now.

Thank you very much.