Behavioral and Personal Finance
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Module - 01
Behavioral Economics and Finance
Lecture - 16
Biases and Financial Decision-Making (Contd.)

Hi, there taking further from the previous discussion. In this session we will discuss two more behavioral biases that essentially affect our investment decision making processes.

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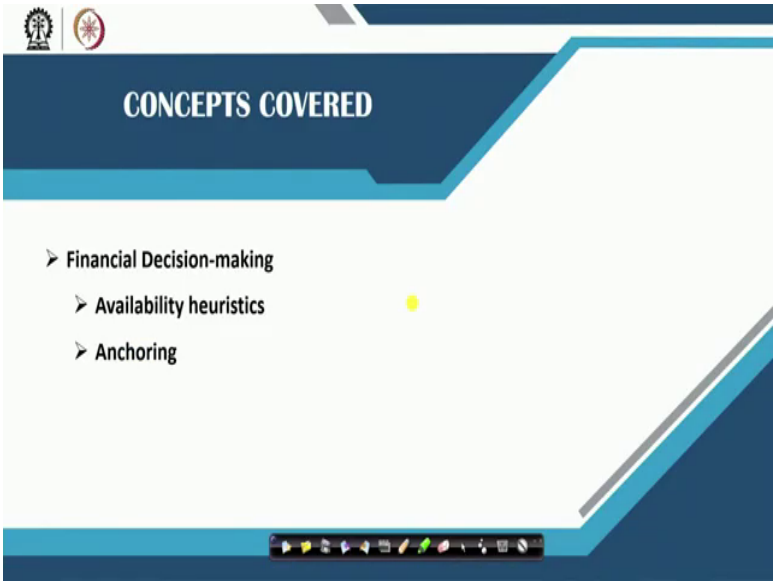

The biases that we are going to discuss today are availability heuristics and anchoring bias. Before, I begin the discussion on these two biases let me start with a very simple situation, or

rather I would ask a simple question why do you watch YouTube videos or OTT platforms like Netflix prime or any other similar platforms.

Well, have you ever thought, why the quality of content over Netflix or Amazon prime are better than the qualities of contents available on YouTube. Well, I would answer it simply by saying that all that glitters is not gold, which means the things which are available for free or with less effort are not considered to be of really good value. This leads to one of the behavioral biases that investors face in the stock market.

Many a times investors find themselves in the floods of information and most of the information are freely available. For example, if you are an investment analyst or you are an individual investors looking for information for analysis of the investment opportunities. You go to the internet type a simple Google query you are given a lot of information in terms of search results.

Now, whenever you come across information that are freely available or easily accessible, you consider them to be of less value and if you come across some information which are available with more effort or more cost in terms of time or resources or subscription price, you consider those information to be more valuable. This might lead us to certain behavioral tendencies and that could be considered as a bias in investment decision making process.

What happens in this kind of situation is we try to rely sometimes on freely available information, when we are scarce facing a scarcity of resources, but we overweight the information that are available for some cost in terms of time or resources, and that is how we deviate from the true valuation of investment opportunities. Let us try to understand the basic concept of this availability bias first.

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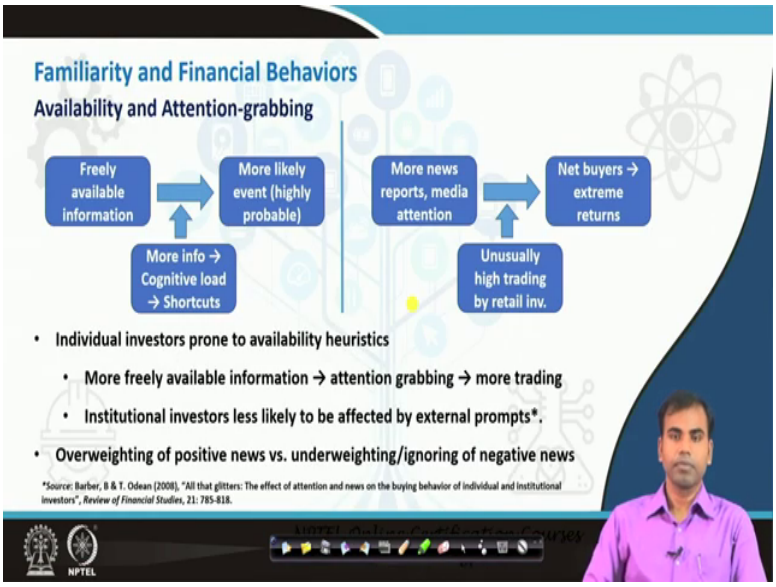

Suppose, you come across information which are freely available and whenever something some things are freely available, you find them to be used often more often by people who are making decisions. And, the moment you have more information this increases the cognitive load on your decision making process and you tend to find shortcut or you start finding heuristics which will help you manage your decision making process.

And, eventually you are more likely to take decisions based on information that are highly provable or the information which are coming again and again. If we contextualize this situation in financial market, we are suppose we are going to identify companies for investment process. Which means, if I have some money, I want to identify some stocks or some shares of companies for investment and I am analyzing their stocks.

The human tendency which is very commonly observed is we tend to identify stocks, which are more in use or which are getting more media attention and in the process what happens is retail or individual investors tend to give more attention to such stocks, which are coming in the mid news media frequently and they start trading more and more of such stocks. That will lead further to more buying of these type of stocks and extreme cases of return in both positive and negative ways.

Whereas, you might observe that institutional investors such as mutual funds or foreign institutional investors and other institutional investors, they are less affected by news reports or these external prompts and that is why they do not get swayed away by such phenomena easily. Whereas, retail or individual investors are affected by these biases more frequently.

If we try to contextualize this situation in a very simple example; where an individual is supposed to take a decision, whether to invest in a particular investment opportunity or not, we can consider a case of this finding present value of future cash flows. We have already seen that the basic of financial decision making can start with finding the value of all future cash flows, which are expected.

And, comparing that value of future cash flows with the initial investment to understand, whether we are getting more than what we are supposed to invest now or less than what we are going to get if it is more, we should go ahead and invest and if it is less we should ignore that opportunity.

Now, if we take that situation of cash flow analysis, we can try to understand, how this can influence our decision making process.

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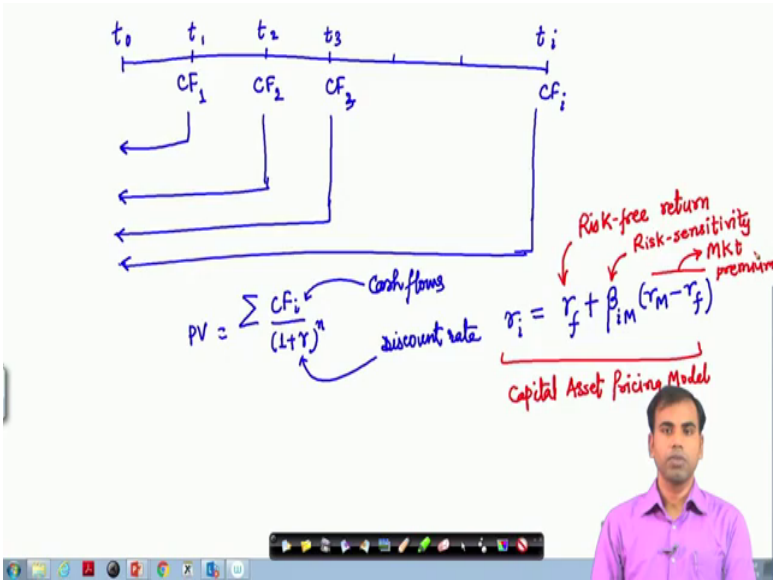

Suppose, for example, we have a series of cash flows and as explained earlier this is the timeline, where you have different times, this could be year or month or any period and these are cash flows associated with the time line. Now, the basic framework says that the cash flow should be brought to the present time in terms of discounting their actual value with the discounting rate.

So, when we try to discount the cash flows, we try to see if cash flows are discounted with some discounting rate. So, this is the present value of all future cash flows originating at different points of time. And, because money has different values at different point of time, we discount those future cash flows with a discount rate known as r here.

So, if this is our discount rate and this is our cash flows, how we can show that the decision making process of discounting these future cash flows might be affected by the availability of

information or any other such behavioral biases is as follows. Suppose, you wake up in the morning and you read the newspaper and come across that, the average cost of capital or cost of funding for individual investors is going to be 6 percent. So, this information is easily available in the news; in the news format and you consider that the cost of funds for individuals is going to be 6 percent.

Now, when you try to start using this information for discounting the cash flows that we have here, this selection of r or basically the choice of discounting rate for you would be affected by the information that you had in the form of news item. So, news says that 6 percent is the average cost of funds or cost of capital for individuals.

So, you would probably tend to choose a discounting rate that is very much close or very much a function of this 6 percent of cost of fund and that might not be necessarily true in this case, because earlier we had discussed that this r could be a function of not only the cost of capital but also the risk or riskiness of the decision that you are going to take as well as the desired risk premium that you might be expecting.

We had already touched upon on the concept where this r can be determined as a function of the rate that you can get easily and some risk sensitive measure. And the risk premium that the market is offering over and above the risk free rate. This particular approach is known as capital asset pricing model which we will discuss briefly later on.

Here, we know that this r f is basically indicating risk free asset implying that, this is the minimum return that you can get without taking any risk b beta i M is the risk sensitive measure, risk sensitivity and this basically indicates the market premium. So, when we try to consider this r as a discounting rate, we should keep in mind that it should not be just a function of cost of fund, but also the risk sensitivity that you are assuming in the form of taking this decision and the market risk premium that is offered by the market.

But, as an individual we are we tend to be affected by the information that we get and that is where the information, which are easily available might influence our choice in terms of discounting rate. We will see more such examples when we discuss the issues and concepts

related to personal finance in the second module of the course. For, now I wanted to highlight that the decision of individuals might be affected by the information which are freely available and that is where we make systematic mistakes.

Taking the discussion further to explain how availability bias might affect people's choices. Let us try to understand this with the help of an empirical experiment.

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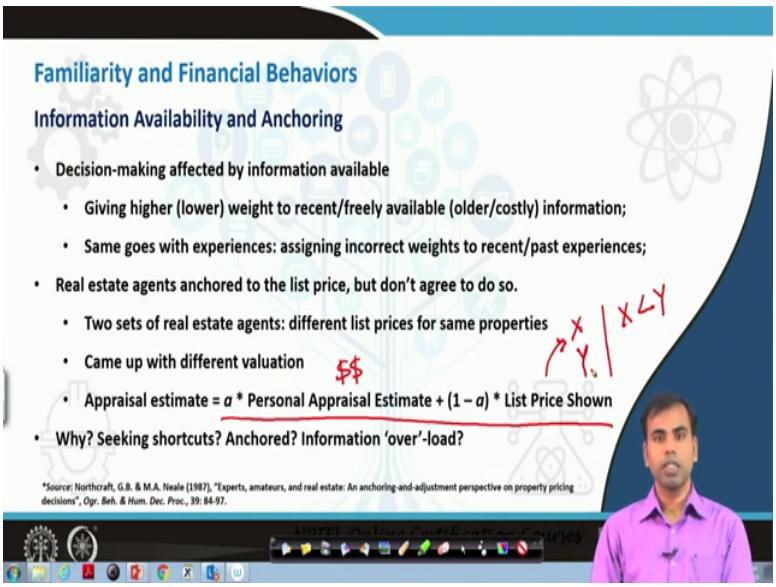

We have already turned upon the idea that people tend to overweight the information which they can easily access to and underweight the information that comes with cost in terms of resources or time. This kind of behavioral tendency might be observed in terms of experience as well, where peoples decision might be affected by their recent experiences we had discussed about recency effect.

Here, I would like to cite an example, where a set of real estate agents were assigned a task to evaluate the property, in terms of the values financial valuation. And to be more specific two sets of real estate agents were given the task to assign the value of same properties, which means there are two sets of real estate agents, they are going to find the value or they are going to assign the financial value of two sets of same properties.

Now, properties have same features so, theoretically their valuation should be same by whoever is doing the valuation. Actually, the difference between these two sets of real estate agents is in terms of the information that they were given a priori. One set of real estate agents was given the information apart from the traditional information in terms of the characteristic and features of the properties, they were given a list price which was let us say x.

So, if I can; if I can say that the two sets of real estate agents were given two different lists price; one of them one of the two sets were given a list price of x whereas, the other set of real estate agents was given the list price of y. And, then they were assigned the task independently, when they were asked to give the valuation of those same properties their valuation were different.

Now, if the property real estate agents were rational, the valuation of that particular set of properties should be identical and it should not be affected by any other factors. Whereas, the reality was or the experimental evidence shows that, the valuation that they had come up with was a function of their own appraisal in terms of their valuation estimates plus some estimate that was driven by the list price that they had shown.

So, their valuation of properties were a function of this equation. So, this equation indicates that, they were given to list prices. So, let us say X or Y whereas, X was smaller than Y. So, the first set of real estate agents came up with a property valuation which was consisting of their own valuation plus some function of X that were shown to them.

And, the other set of people who were real estate agent they came up with a different set of valuation, which was again some valuation of their own estimates as and some function of Y which was different from X. So, this experiment indicates that, if you are given some task or you are assigned some problem where you have to make a decision about let us say investment or finding the value of an asset.

Your decision would be affected by the information that is available to you. And, this phenomena has also been observed by concept called nudge that was given by Richard Thaler which suggests that when we are given some additional information our decision making process gets affected. Here in the case of real estate valuation agents assessment of properties was affected by the list price that was given. And, this shows that peoples choices or peoples decision get affected by the information that they have access to.

Now, if you try to explain why real estate agents came up with different valuation for the same set of properties, it could be explained in terms of the their tendency to seek shortcuts, because even if they came up with their own valuation estimates, they were nudged or they were affected by the information that was given to them in different list prices.

They might have been anchored to certain information, which they had access to or they might be having information overload, because of which they started seeking shortcuts and the best shortcut was their own evaluation plus some anchor coming from list prices. This kind of tendency is very commonly observed in stock market, we had already mentioned a couple of examples, which suggests that when investors buy a stock for certain value and the prices start falling peoples, people might not be interested in selling that stock, because they are anchored to the information or the price that they had purchased.

Similarly, if you are given the task to assign the value of a particular commodity or a product let us say a coffee mug. And you were told that this coffee mug is available in the market for 50 rupees, your decision to assign the value to that coffee mug will be influenced by that information. And you would probably give a valuation which is some sort of function of that information in terms of 50 rupee market price.

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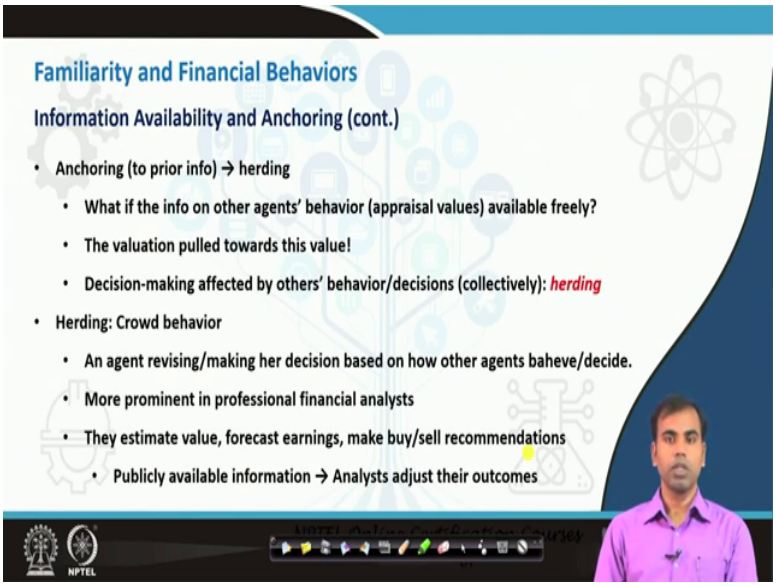

When we talk about peoples tendency to anchor to the information that they have, if this anchor anchoring tendency gets accumulated in terms of collective behavior of a set of people, this result in herding. When we talk in the context of stock market investors would be accessing the information that are freely or easily available to them. And, at the same time they would be sharing that information across different set of people or in across investors.

Now, the valuation gets affected by the information that they have and when the information is accessed by a large set of people, probably all of them start behaving in a similar fashion and that leads to the herding behavior or the crowd behavior in stock market. We have seen from stock market data and it is observed there that, when certain set of investors start behaving in a particular fashion, other people might start following them and this leads to a

phenomena of bubble building in the stock market or it is also known in a certain way as herding in stock market.

This particular phenomena is more popular or more obvious in fund managers behavior or analyst behavior, in terms of their recommendation or earnings forecast, or other financial estimates, where they share the information across different media. For example, if you watch business new channel.

So, when the market opens a lot of experts start giving recommendations or valuation for different financial assets or securities and as the day progresses, their recommendation might get revised or it might get updated because of additional information that are available to them.

And, many times the information to them would be coming in the form of recommendations by other analysts or other experts. So, essentially they tend to update the information or they tend to stick to the information that they have, after receiving some additional information in the form of others opinion. This might be an evidence of herding or anti herding in some cases where people do not update their belief.

Essentially, there the job of a financial analyst or an investment analyst is to assign some value of a financial security and then give recommendation for buy or sell or hold. And, if they update their information based on some inputs that they see from some other analysts opinion. There their behavior might be leading to crowd herd mentality, and that is where the financial markets might be showing some anomalies in terms of herding or mis evaluation of financial securities.

Most of the time this herd behavior is evident as a function of publicly available information, where analysts adjust their forecasts or their opinion based on the information that are available easily. So, that is why we started with the argument that when information is available easily or for free most of the time people's behavior in terms of investment decision making is affected by the information availability and that is where this representativeness

bias and availability heuristics might lead to anchoring as well as non anchoring or rather herding behavior in stock market.

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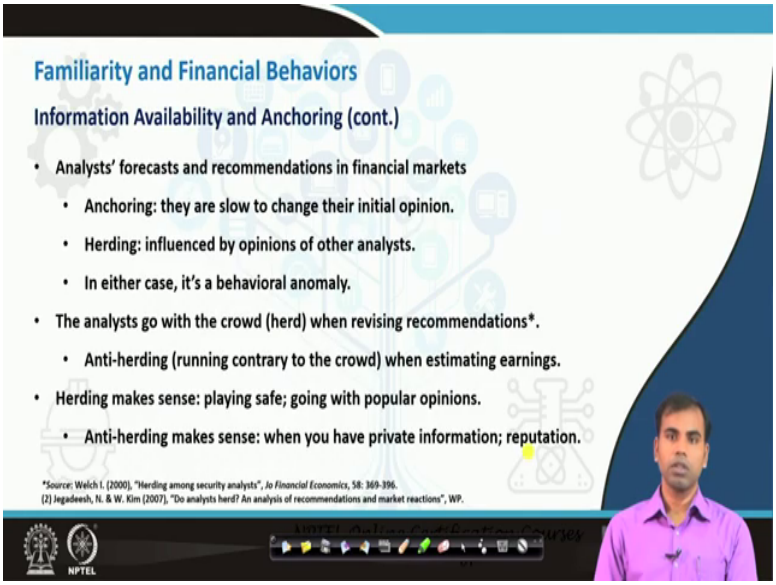

When, we talk about availability of information and anchoring we just discussed an example where analysts might be accessing information across different platforms, in the in terms of the opinion of their fellow colleagues or fellow analysts. And, based on that they might update or might not update their recommendations or investment forecast, if they revise their opinions basically they are following the herd, this could be explained by the phenomenon that they might want to play safe and that is why they are going ahead with the popular opinion.

Whereas, if they do not want to update the belief it could be because of some reason such as they might have access to private information and that is why they are not going ahead with

the popular opinion, or they might want to save or create a reputation of being different from others.

So, this tendency of anchoring among investment analysts could be explained in terms of herding or anti herding. Herding when they go by the popular opinion and revise their recommendations of buy sell or hold, when they receive additional information from other analysts colleagues.

If, they do not herd and they do not update their belief which is basically they do when they have private information or they have some reputational concerns. So, essentially when we talk about heuristics and behavioral biases affecting investment decision making, originating from information availability or familiarity we try to merge 4 major issues; representativeness, homebuyers, availability heuristics and anchoring. And, all these things might lead to herding behavior which is a behavioral anomaly in financial market.

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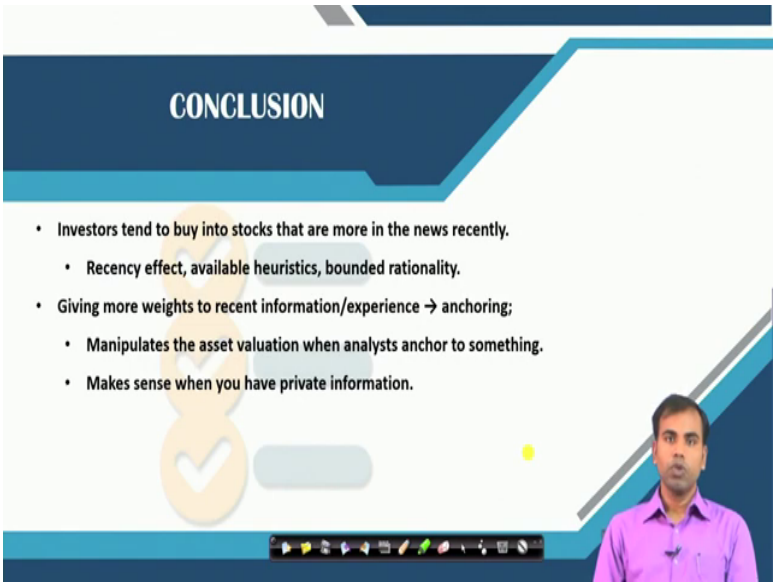

To sum up the discussion of this session, we know that investors tend to buy stocks, which are more in news recently the reason is they are more familiar and the information is easily available, that is why they overweight the information which are available for free. Another reason could be the bounded rationality argument where people do not want to get involved in complex decision making process, and they tend to seek shortcuts and that is where the recent information or the information which are freely available comes into the decision making process and they take the decision accordingly.

This might also lead to the availability heuristics, where people give higher weights to the information coming from the recent experiences and that might lead to the anchoring behavior of investors, where they try to manipulate the asset valuation or they do not want to

change their belief when they are anchored to the prices or the information that they have access to.

Anchoring makes sense perfectly when you have private information and it also makes sense when individual or analyst or investors are confident about their decision and that is why they do not want to update their belief. It does not make sense, if you are going ahead with the unjustifiable calculations or analysis of the data or the result information that you have.

So, whenever you have information available, it is always wise to analyze the information appropriately and incorporate in the decision making, that you have done in the process. That is all for now.

Thank you very much.