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Lecture – 33 Decision Making (cont.)

Namskar, today, we will be continuing with our discussion on our topic, "Decision Making". This is Module VII and Lecture III. In the previous lectures, we have discussed the Concept of Decision Making, the Definition of Decision Making, Types of Decisions, Programmed Decisions, Non-Programmed Decisions. We also discussed Organizational Decision Making, Employee Involvement in Decision Making. And we discussed the Analytical Model of Decision Making. Today, we will move further, and we will be speaking about Individual Decision Making.

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In my previous lecture if you recall, I had said that decision making happens across the organization, and it could be either individual decision making, or it could be a team or a group decision making. And I also said, that this decision making happens across the different levels of the management hierarchy, you know. Whether it is the top management or the middle management, or the lower management, or the superiors or the subordinates, everybody is involved in taking some kind of decisions. And so, this decision making may be either individual or it may be group based.

Now, in today's lecture, we will be discussing individual decision making, and how decisions, you know, decisions take place, how people as individuals, take decisions. There

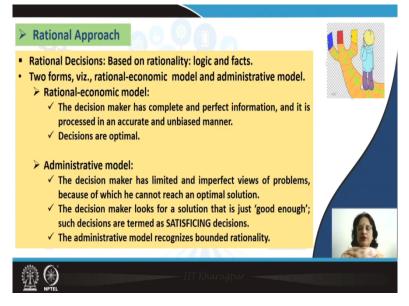
are different approaches which you will see and, you know, generally what we see is a mix of all these approaches which are used in decision making.

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So, we will be talking about the Rational approach to decision making, the Bounded Rationality perspective, Creativity and Creative decision making, Intuition and decision making and Heuristics and decision making. So, let us go one by one, and start with the Rational approach to decision making.

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Now, when we talk about rational decisions, we are actually talking of decisions which are based on rationality, which are based on logic, which are based on facts and there are two forms of the Rational approach. One is the Rational-Economic model, and the other is the Administrative model. Now, what is the Rational-Economic model? The Rational-

Economic model, it is assumed that the decision maker has complete information, he has perfect information, and he can process this information in an accurate and an unbiased manner, and the decisions which are arrived at, are optimal decisions; they are logic based; they are rational, and they are basically the best in terms of, you know, a cost-benefit analysis, which means that out of all the different alternatives which the decision maker has, he has chosen one which, would give the best result, and which would require the least amount of investment; any kind of investment, be it investment in terms of physical infrastructure, or manpower, or financial resources.

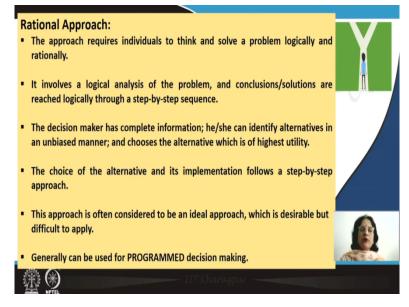
So, here the decision maker, you know, arrives at a decision based on facts, based on logic and, you know, he actually evaluates the different alternatives or different options, which he has to choose from, in a very rational, in a very logical manner, and thereafter, he picks up one alternative, or he chooses an option, which is going to give the maximum benefit to the organization, and will require least amount of costs, or least amount of investment of any kind.

So, these decisions are optimal, but when we talk about the second form which is the Administrative model, here it is assumed that the decision maker has limited and imperfect view of the problems because of which he cannot reach an optimal solution. It is assumed and it is believed that we as individuals do not have access to any and every kind of information, and we as individuals, have limited thinking capacities. And so, a decision maker has a limited and imperfect use of problems, because of which he cannot arrive at the optimal solution. And so, the person or the decision maker looks for a solution, which is just good enough, reasonable, chalega types, you know. So such decisions are termed as satisficing decisions. So, so basically the Administrative model you know, actually recognize the concept of Bounded Rationality.

It believes that people or individuals, you know, they do not have access to all information, and they do not have information to full facts, figures, you know, and the entire information; and the thinking capacities of the people are also limited, because of which they actually could have a limited and an imperfect view of the problem, and they will not be able to reach a logical conclusion, or a rational, you know, decision. And so, they cannot reach an optimal solution fully. I mean rational here meaning, fully rational. You know, we have to understand that both the Rational-Economic model and the Administrative model, you know, follow the Rational approach, but the difference is that in the Administrative model, it is believed that the person may not be fully rational.

So, he may not be able to reach an optimal solution, and he looks for a solution which is just good enough 'satisficing' decision, and in this way, the Administrative Model recognizes the importance of Bounded Rationality.

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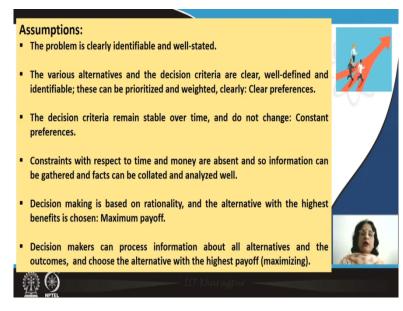
Now, what is this Rational approach? Now, if we go into the Rational approach, what we see is that it is an approach which is based on logic, facts, figures, and it requires individuals to think and solve a problem very rationally, very logically. So, it involves a logical analysis of the problem and conclusions, you know, arrived at logically through a step-by-step sequence. So, there is a problem, and it is discussed and, you know, the person would look for alternatives; discuss which of the alternatives is the best alternative, and then finally, you know, choose one of these alternatives. So, this Rational approach involves a logical analysis of the problem, and the solution which is arrived at is very logical through a step-by-step sequence.

So, it is believed that the decision maker has complete information; he has facts; he has figures; he will identify alternatives in an unbiased manner, and he will choose an alternative which provides maximum utility or maximum benefit. So, the choice of the alternative, and the implementation follows a step-by-step approach. Of course, this approach is often considered to be an ideal approach.

It is a desirable approach, but it is very difficult to apply. Nevertheless, this can actually be used in Programmed decision making. If you recall in a previous lecture, in one of the previous lectures, I had spoken about Programmed decision making. A Programmed decision making relates to those problems which are routine problems, which occur frequently, and are well-defined problems and so, you know, there is more clarity with respect to the problem, and these can be solved easily. So, easily in the sense that there is past, you know, precedents which may be there with the organization, or there is SOPs or Standard Operating Procedures, which exist in the organization based on which such problems can be dealt with.

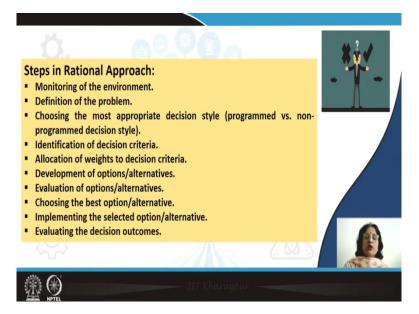
So, the Rational approach is considered to be an ideal approach, but it is difficult to apply and it is generally used in Programmed decision making.

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Now, the assumptions of the Rational approach are that the problem is clearly identifiable and well-stated. Various alternatives and the decision criteria are clear, well-defined, and identifiable and this is what, and this is how we define a program decision if you remember. So, the various alternatives and decision criteria are clear, well-defined, identifiable; they can be prioritized and given weights clearly; so, there are clear preferences and decision criteria remain stable over a period of time, which means that there are constant preferences. So, the problem is clearly identifiable and well-stated; there are clear preferences with respect to alternatives; there are constant preferences in the sense that the decision criteria remain stable over a period of time; constraints with respect to time, with respect to money are absent; and so, information can be gathered; facts and figures can be collated and analysed well. So, decision making is actually based on rationality, and the alternative with the highest benefit is chosen. So, the one which gives a maximum payoff is the one which is selected. So, decision makers can process the information about the various alternatives and the outcomes, and then they can choose one of the alternatives which gives the maximum payoff or highest payoff. So, it is more about maximizing.

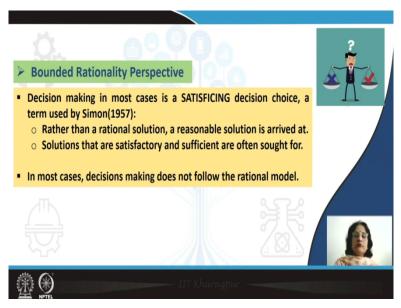
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So, what are the steps in the Rational approach? Monitoring the environment, Defining the problem, Choosing the most appropriate decision style whether it is going to be a programmed decision or a non-programmed decisions style; Identification of decision criteria; Allocation of weights to the decision criteria; Development of options or alternatives; Evaluation of options or alternatives; Choosing the best alternative or option; Implementing the option or the alternative, and Evaluating the decision outcome.

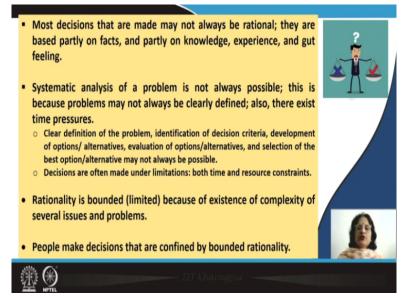
So, these are the steps in the Rational approach, some of which we also discussed when we did the Analytical model of decision making as proposed by Greenberg in the previous lecture. So, it is very similar to that approach.

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The second approach which we discuss in individual decision making is Bounded Rationality. It is the perspective of Bounded Rationality. Now, decision making, in most cases is a 'satisficing' decision choice, a term which was used by Simon in 1957. So, as you saw in the Administrative approach a little while ago, you know, to take that forward, we will again speak about, you know, the fact that the decision maker may not have all the information, and he may have limited information processing capacity. So, there has to be some, you know, compromise on full rationality. Full rationality may not be possible; decisions may not be arrived purely and purely based on rationality, and so the Administrative Model also proposed that what is looked for, is a reasonable solution or a satisficing solution. And as you recall, a few minutes ago, I told you that the Administrative Model you know, gives due recognition to the Bounded Rationality perspective. So, the same Bounded Rationality perspective is what we are talking of. Decision making here is regarded to be a 'satisficing' decision choice, a term which was used by Herbert Simon. So, rather than a rational solution, a reasonable solution is arrived at, and solutions that are satisfactory and sufficient are sought for. So, these may not be optimal, but they are reasonable solutions. So, in most cases, we see, decision making does not follow a Rational model. And there is some amount of a compromise on total rationality because total rationality may not be possible. It is not possible for people to have, you know, absolutely you know, updated and full information; there will be information gaps; you know, and so information which is available may not be absolutely updated, or absolutely full in nature. And people also do not have, you know, the best of thinking capacities. Thinking capacities are also limited. So, that is wherein the concept of Bounded Rationality you know, arises.

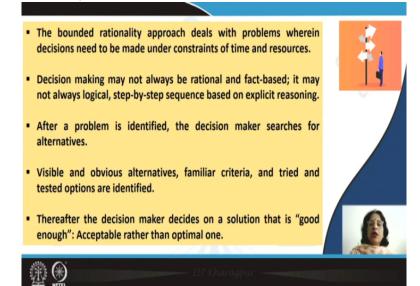
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Now, most decisions that are made, may not be always rational. They are based partly on facts, partly on knowledge, experience, intuition and gut feeling. So, a systematic analysis of a problem is not always possible. This is because problems may not always be clearly defined. And time pressures are there. Unlike the Rational model, which said that problems are clearly defined, and there are no constraints with respect to money and time, the Bounded Rationality model assumes, that the problems may not always be clearly defined and they also exist some kinds of constraints. There may exist time pressures and so a clear definition of the problem, identification of decision criteria, development of alternatives, evaluation of alternatives, and selection of the best alternative, you know, may not always be possible.

And decisions may be made under pressures, or under constraints of time and resources. So, rationality gets limited. It is bounded because of existence of complexity of several issues, and existence of several problems, and people thus make decisions that are confined by Bounded Rationality. The decisions are rational, but not fully rational. And so, people make decisions that are satisficing decisions, and people make decisions that are confined by Bounded Rationality.

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So, the Bounded Rationality approach deals with problems where decisions need to be made under constraints of time, under constraints of resources. Decision making may not be always rational and fact based; you know, not always be logical or sequential or step-by-step, you know, or done step-by-step, you know, as a sequence based on explicit reasoning and after a problem is identified, the decision maker searches for alternatives; whatever alternatives are very visible and obvious and are/or available or whatever criteria are familiar, and tried and tested alternatives are identified. So, visible and obvious alternatives, familiar criteria, and tried and tested options are identified. Thereafter, the decision maker decides on a solution which is good enough, you know reasonable. So, it is something which is reasonable and acceptable, rather than something which is an optimal one.

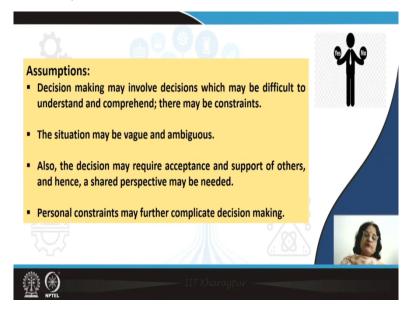
So, in the case of Rational approach, you are talking of an optimal solution, but in the case of Bounded Rationality, we are talking of something which is just good enough, chalega, and it is something, which is acceptable; it is something which is reasonable, and we will term it as 'satisficing'.

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Bounded rationality involves intuitive decision making processes based on gut feeling, experience and judgment. Experience saved in one's sub-conscious plays an important role. It helps understand problems and decisions are based on the gut feeling of which option/alternative would be the best one to solve a problem. Generally can be used for NON-PROGRAMMED decision making.

So, Bounded Rationality involves intuitive decision making processes, based on gut feeling, experience, judgment, experiences saved in one's subconscious, you know, and it plays an important role; it helps people understand problems, and the decisions are based on the gut feeling of which alternative or which option will be the best one to solve the problem; and so, we see that this kind of an approach is used more for non-programmed decision making. If you remember in the previous lecture, I also discussed with you what Non-programmed decision making is. In the first lecture of this topic on decision making, I had discussed with you, types of decisions, where we spoke about programmed and non-programmed decisions. So, here non-programmed decisions, if you recall, were those which were novel, unique, suddenly arise, infrequent, and they may not be a precedent for the past, and so Standard Operating Procedures are absolutely absent. And you cannot rely much on, you know, what was done in the past. So, you have to use some facts, some figures, your gut feeling, or you know, your experience, your judgments of the past, and judgments taken for similar problems in the past, and your gut feeling and your intuition to solve those problems. So, we say that Bounded Rationality approach is readily used for such Non-programmed decision making.

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So, the assumptions here for the Bounded Rationality model are that decision making involves decisions which may be difficult to understand and comprehend and analyse, and there may be constraints both, you know, time and resource constraints, and the situation will be vague, ambiguous. So, there is non-clarity of the problem, and the problem cannot be defined well. If you see, these were also characteristics of non-programmed decisions. So, the situation here may be vague and ambiguous. Also, it may require the acceptance and support of others, and hence a shared perspective to decision making is required. So, you know, there must also be personal constraints with respect to, you know, our cognitive abilities, thinking processes, or you know, knowledge, skills and abilities, with respect to decision making, which may further complicate the process. So, here the assumption for Bounded Rationality is that decision making may involve decisions which are difficult to understand and comprehend; and there may be constraints with respect to time or with respect to resources. **(Refer Slide Time: 18:40)**

- It may not always be possible to assimilate all the information necessary and arrive at an optimal solution. Hence, people SATISFICE, or look for a solution that is satisfactory or 'good enough'.
- Because the focus is on satisficing rather than maximizing, decision makers make choices without looking for all the possible alternatives.
- Decision makers satisfice and do not maximize as they do not possess the ability to maximize.
- This is suitable when there is a high level of uncertainty, little precedent to draw on, limited facts, and limited time for decision making.



So, it may not always be possible to assimilate all the information which is necessary to arrive at an optimal solution. So, people satisfice, or they look for a solution which is reasonable, good enough, chalega, satisfactory. So, because the focus is on 'satisficing' rather than 'maximizing', decision makers make choices without looking for all the possible alternatives. They just look for those alternatives which are visible, which are explicit, or which they are familiar with, and so forth. So decision makers make choices without looking for all the possible alternatives, and they 'satisfice', and they do not maximize as they do not possess the ability to maximize. So, this kind of an approach is suitable when there is high level of uncertainty; little precedent to draw upon limited facts, limited time for decision making, etcetera. So, if you remember, these were all characteristics of non-programmed decisions as well.

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- Creativity and Creative Decision Making
 Decision making often involves creativity.
 People think of 'out-of-the-box' solutions: Novel and useful ideas and solutions.
 Creativity depends on observation, experience, knowledge, and one's ability to view things differently.
 Creativity may often include perceiving and understanding problems
- Creativity may often include perceiving and understanding problems that others cannot see or realize or understand.
- It results in people looking at things differently.
- A major challenge that companies face today is to be more creative and innovative.

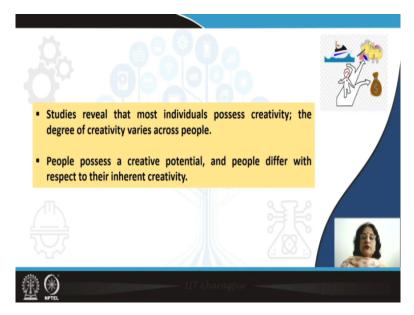


Now, the next thing which we come to is Creativity and creative decision making. So, decision making often involves creativity, you know. People think of "out-of-box" solutions, and a major challenge that companies face today, is to be more creative and innovative. So novel and useful ideas and solutions are very, very important. So, sometimes decision making involves creativity. People have to think "out-of-box" solutions. Novel and useful ideas and solutions are looked for, and creativity actually depends on observation, on experience, and knowledge and one's ability to view things differently. It often includes perceiving and understanding problems in manners, which have not been done before, or which other people do not follow. So, it will include perceiving and understanding problems that others cannot see or realize or understand. So, you know, you are being totally different from the other people. So, it results in people looking at things differently. So, what it actually implies is that people have to think of out of box solutions, novel and useful ideas and solutions, and creativity here depends upon experience, upon knowledge, upon observation, and one's own ability to think differently.

So, it includes understanding problems in a manner which is different from others. It includes perceiving and understanding problems that others cannot see or realize or understand. So, it results in people looking at things differently, people looking at things from different angles and very different; it is not a person thinking like others. So, a person who is creative will have an approach of looking at things differently. He will understand the problem in a different manner; analyse it in a different manner; think "out-of-box" solutions, and think of something absolutely different. So, the person here, the person who is creative, looks at things very, very differently. So, creativity may include perceiving and understanding problems that others cannot see or realize or understand, and it results in people looking at things differently. People who are creative will look at things very differently.

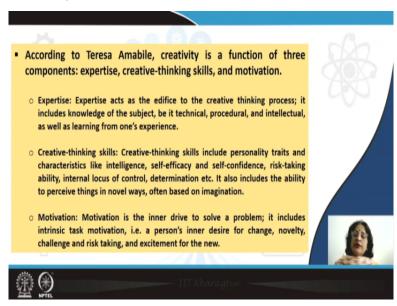
Now, a major challenge which companies face today as I just said, is the need to be more creative and innovative, and not everybody is able to be creative. So, companies or organizations should actually encourage creativity because that would lead to, you know, people thinking differently and arriving at absolutely novel solutions or "out-of-box" solutions, which may be beneficial for the organization in the long run.

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So, studies reveal that most people possess creativity. It is just that the degree of creativity varies across people. And people possess a creative potential, and people differ with respect to their inherent creativity. So, we all are creative in some form or the other, but the degree of creativity varies across us; people possess a creative potential, but they differ with respect to the inherent creativity.

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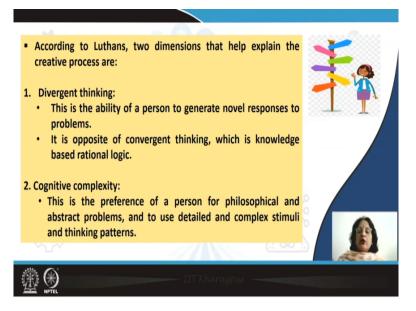


Now, according to Teresa Amabile, creativity is a function of three components: expertise, creative thinking skills, and motivation. Expertise here acts as the foundation to the creative thinking process. It includes the knowledge of the subject, be it technical knowledge or procedural knowledge or intellectual knowledge as well as learning from one's experience. So, expertise is the foundation of creativity, of the creative thinking process. It comprises the knowledge of the subject, as well as the learning from one's past experiences.

The second component is creative thinking skills, which includes personality traits and characteristics like intelligence, self-efficacy, self-confidence, risk-taking ability, internal locus of control, determination, etcetera. It also includes the ability to perceive things in different ways, and novel ways, often based on imagination. I have discussed with you the concept of self-efficacy, internal locus of control in my previous sessions. So, creative thinking skills include these personality traits and characteristics like intelligence, self-efficacy, self-confidence, determination, internal locus of control, risk-taking ability, etcetera, and it also includes the ability to perceive things in different ways, in novel ways, based on imagination.

The third component of creativity is motivation. So, motivation is the inner drive to solve a problem. It includes the intrinsic task motivation; an inner drive, which makes us move towards achieving our tasks, achieving the goal, achieving organizational goals. So a person's inner desire for change, for novelty, for risk-taking, for challenge, and excitement for the new are also a part of, you know, creativity. So, creativity is a function of three components -expertise, which is knowledge of the subject and experience; creative thinking skills, which include personality traits; and motivation; motivation here with respect to thinking differently, bringing about change in the organization, risk-taking and excitement for the new; so motivation towards an intrinsic task motivation, like an inner desire for change, risk-taking, novelty and excitement for the new.

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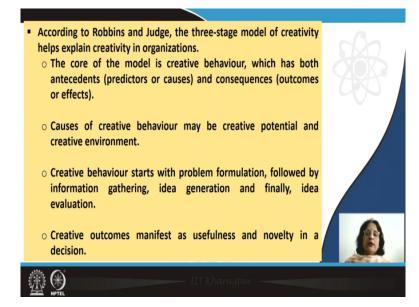


Now, according to Fred Luthans, there are two dimensions which help explain the creative process. One is Divergent Thinking, and the second is Cognitive Complexity. What do we mean by divergent thinking? Divergent thinking, is the ability of a person to generate

novel responses to a problem; the ability of a person to generate novel responses to a problem. It is the opposite of convergent thinking. Convergent thinking is more to do with facts, figures, logic, rationality. So, convergent thinking is knowledge-based rational logic, but divergent thinking is the ability of a person to generate novel responses to a problem. The ability to generate novel responses is divergent thinking. It is the opposite of convergent thinking, which is knowledge based rational logic.

The second dimension which helps explain creative processes according to Fred Luthans is Cognitive Complexity. So, this is the preference of a person for, you know, abstract problems, philosophical problems, and you know, his preference to use detailed and complex stimuli and thinking patterns to solve those problems. So, according to Fred Luthans, Divergent Thinking and Cognitive Complexity are two dimensions which help explain the creative processes.

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And according to Robbins and Judge, the three staged model of creativity helps explain creativity in organization. So, the core of the model is creative behaviour, which has both antecedents and consequences. The antecedents are the predictors or the causes, and the consequences are the outcomes or the effects. So, the core of the model is creative behaviour, which has causes and effect. So, it has both antecedents and consequences. So, causes of creative behaviour may be creative potential and creative environment. Creative behaviour starts with problem formulation, followed by information gathering, idea generation, and idea evaluation; and creative outcomes manifest as usefulness and novelty in a decision. So, the core of the model in creative behaviour has both antecedents and consequences, or causes and effects. Causes of creative behaviour may be creative potential and creative potential and creative environment. And creative behaviour starts with a problem recognition or problem formulation; problem recognition or a problem formulation followed by information gathering, idea generation and idea evaluation. And creative outcomes, work you know, consequences here manifest as usefulness and novelty in a decision.

So, the antecedents are creative potential and creative environment, and the antecedents are creative potential and creative environment, or the causes are creative potential and creative environment; and the consequences are usefulness and novelty in a decision, or the effects are the usefulness and novelty in a decision.

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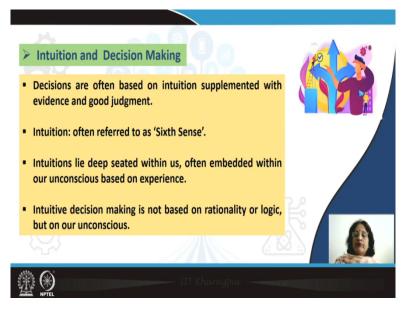
So, creativity and decision making must be encouraged in organizations as I just said a few minutes ago, because you know, organizations must encourage people to think novel, to think 'out-of-the-box'; in fact, that is what stimulates innovation in organizations, and we know, that that the world's most successful companies are those which are high on innovation.

So, companies should foster an environment of creativity; they should foster an environment of innovativeness in organizations, and to foster such an environment of innovativeness, encouraging creativity is very, very important. So, creativity in decision making also must be encouraged by organizations. The drivers to creativity in organizations must be identified; drivers here, meaning, you know, the moving forces towards creativity in organizations should be stimulated and, you know, motivation should be provided to people through rewards, through incentives, so that people are encouraged and motivated to think, 'out-of-the-box'. Organizational culture which encourages creativity must be developed. So,

the major components here, would be a learning orientation, open and transparent communication, trust and commitment, healthy competition, etcetera.

And then there must be cross-pollination. Cross-pollination here, means employees must be exposed to newer ways of thinking, through knowledge sharing. So employees must be exposed to newer ways of thinking through knowledge sharing.

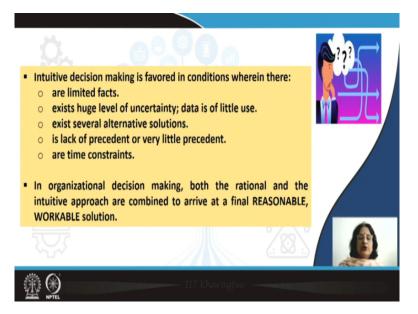
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Then we come to Intuition and decision making. So decisions are often based on intuition, which is supplemented with evidence and good judgment. Now when we talk of intuition, we are actually talking of or referring to the sixth sense. Now, intuitions lie deep within us, often embedded within our unconscious, based on our experience, and intuitive decision making is not something which is based on rationality or logic, but it is based on our unconscious.

So, decision makers often take decisions based on intuition, which is supplemented with evidence and good judgment. And these intuitions lie deep within us, and intuitive decision making is something which is based on our unconscious.

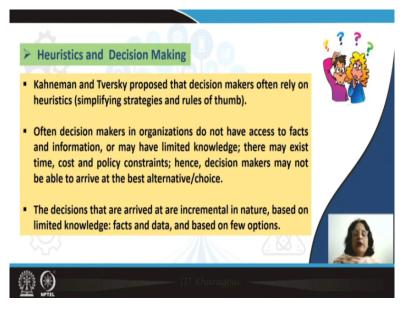
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So, intuitive decision making is favoured in conditions where facts are limited; there exists huge level of uncertainty, and data is of little use; there are large number of alternative solutions or alternative options that exist, and there is lack of precedents or very little precedent. So, there is a lack of precedent or very little precedent, and there are time constraints.

So, in organizational decision making, both the rational and the intuitive approach are combined to finally arrive at reasonable workable solutions. Most of the decisions which are taken are maybe rational, but always backed with some kind of a gut feeling, some kind of a intuition.

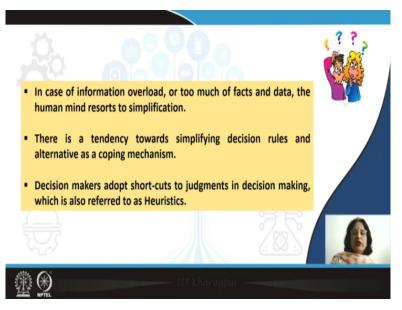
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Then, we come to Heuristics and decision making. Now, Kahneman and Tversky actually proposed that decision makers often rely on heuristics; heuristics here implying you

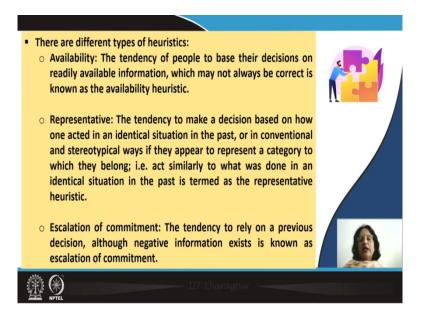
know, simplifying strategies and rules of thumb. So, often decision makers in organizations, do not have access to full facts and figures or do not have an access to the entire, you know, database of information; they do not have access to facts and information in totality or they may have limited knowledge. So, there may exist pressures or constraints like time, cost, policy constraints. So, decision makers may not be able to arrive at the best solution, or may not be able to choose the best alternative. So, the decisions that are arrived at are very incremental in nature based on limited facts, based on limited knowledge. So, limited knowledge here, means limited facts, limited data and based on few options.

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So, in case of information overload also, when there is too much of data, or too many facts available, the human mind again resorts to some kind of a simplifying process. It resorts to simplification, and there is a tendency towards simplifying decision rules and alternatives as a coping mechanism. So, decision makers often adopt short cuts to judgments in decision making, and the short cuts, you know, to judgments in decision making is referred to as Heuristics.

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There are three types of Heuristics: Availability heuristic, Representative heuristic and Escalation of commitment heuristics. So, what is Availability heuristic? The tendency of people to base their decisions on readily available information. People have a tendency to make a decision based on whatever they know, whatever information they have. So, this tendency of people to base their decisions on readily available information, and whatever information they are aware of, which may not always be correct also, is known as availability heuristic.

So, the tendency here of people is to base their decisions on readily available information which may be correct, may not be correct; and this is what is known as Availability heuristic.

The Representative heuristic is when people have a tendency to make a decision based on how they acted in an identical situation in the past. So, tendency to make a decision based on how one acted in an identical situation in the past, or in conventional and stereotypical ways, if they appear to represent a category to which they belong, that is you know, you are acting similarly to what you did in the past; to what you know decided for an identical situation in the past, is referred to as a Representative heuristic.

And then you have Escalation of commitment. The tendency to rely on previous decisions, although negative information exists regarding those decisions is known as Escalation of commitment.

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So, with this, I come to an end of this lecture. These are the references. We shall continue with the topic in the next lecture. Thank you.

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