***UNIT 3:***

***Fireground decision making***

*objectives*

*The students will:*

1. *Explain the need for a logical thought process.*
2. *State the difference between Classical Decision Making and Naturalistic Decision Making (NDM).*
3. *Assess an incident scene and determine whether Classical Decision Making or NDM is the appropriate decision making model to use at a particular incident.*
4. *State the importance of knowing when to be proactive and when to be reactive.*

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Incident Scene decision making

There are many decision making models.

The Classical Model

* Is prescriptive in that it focuses on how decisions should be made.
* Assumes the decision maker is completely rational (i.e., seeks to maximize the payoff and utilizes a search process that proceeds in a planned, orderly, and consistent fashion) and unbiased.
* Assumes that the decision maker has available all the information needed to make a decision and that all possible alternatives are considered.
* The decision maker selects the optimum or best choice.
* Decision making proceeds through the following sequence of steps: problem identification, development of criteria against which alternative solutions can be evaluated, identification of alternative courses of action, evaluation of alternatives, selection of the best alternative, and implementation.

The Administrative (or Behavioral) Model

* Is descriptive in that it describes how decisions are actually made.
* Decision makers seek to simplify problems and make them less complex because they are constrained by their individual capabilities (e.g., limited information-processing ability) and by organizational conditions (e.g., availability of resources).
* Assumes that decision makers operate with limited (or "bounded") rationality; this means that decision makers are rational within a simplified model, which contains fewer components (e.g., fewer decision making criteria, fewer options, etc.).
* Assumes that decision makers identify a limited number of decision making criteria, examine a limited range of alternatives (only those which are easy to find, highly visible, have been tried before, or are only slightly different from the status quo), and that they do not possess all the information needed to make a decision.
  + The decision maker selects a satisfying alternative. This is an alternative that is "good enough" or satisfactory in that it meets the minimum criteria established for a desired solution.
  + Decision making proceeds sequentially: Alternatives are examined one at a time and the first satisfactory alternative that is found is selected.

The Implicit Favorite Model

* + Is descriptive in that it describes how decisions are actually made.
  + The decision maker seeks to simplify the decision making process by identifying an "implicit favorite" before alternatives are evaluated; this often occurs subconsciously.
  + The decision maker is neither rational nor objective and unbiased.
  + After a "favorite" is selected, the decision maker tries to appear rational and objective by developing decision criteria and by identifying and evaluating various alternatives; however, this is done in a biased way so as to ensure that the favorite appears superior on these criteria and can thus be selected legitimately as the "best" solution.
  + In this model, decision making is essentially a process of confirming a choice/decision that has already been made. The actual decision was made in an intuitive and unscientific fashion.

The Political Model

* Is descriptive in that it describes how decisions are actually made.
* The decision maker is neither rational nor objective and unbiased.
* Since the group members have different agendas, they need to negotiate with each other.
* The process involves a cycle of bargaining among the decision makers in order for each one to try to get his or her perspective to be the one of choice--more specifically, to sway powerful people within the situation to adopt his or her viewpoint and influence the remaining decision makers.
* This model does not involve making full information available, since it is based on negotiation that is often influenced by power and favors. In fact, information is often withheld in order to maneuver a given perspective better.
* In this model, potential problems and conflict often can be foreseen and minimized. Once powerful people have been swayed to support a particular viewpoint, other group members usually fall in line behind them.
* The nature of bargaining and maneuvering (e.g., withholding information and social pressure) can produce effects that are long lasting and detrimental. Once they discover it, the individuals involved in the decision may not appreciate the duplicity inherent in the process.

Classical and Naturalistic decision making

The Naturalistic Decision Making (NDM) model identifies a reasonable reaction as the first one that is immediately considered. NDM combines two ways of developing a decision: The first is recognizing which course of action makes sense, and the second is evaluating the cause of action through imagination to see if the actions resulting from that decision make sense. However, the difference between being experienced and inexperienced is a major role in the decision making process.

NDM reveals a critical difference between experts and novices when presented with recurring situations. Experienced people generally will be able to come up with decisions more quickly because the situation may match a prototypical situation they have encountered before. Lacking this experience, novices must cycle through different possibilities, and tend to use the first course of action they believe will work. The inexperienced also have the tendency to use trial and error through their imagination.

Variations

There are three variations in NDM strategy.

1. Decision makers recognize the situation as typical, so they know what course of action they will follow. They immediately know the goals, priorities, and steps of the course of action in the given situation. Variation one is basically an "If, then," reaction. One situation can give rise immediately to the course of action due to its typicality.

2. The second variation occurs when the decision maker diagnoses the situation to develop a course of action. Variation two takes the form of "If (???), then." In order to prevent complications and misinformation, the decision maker is more concerned about the situation than about the course of action or the goal.

3. The decision maker is aware of the situation but unaware of the proper course of action. Mentally implementing a simulated trial-and-error process to develop the most effective course of action helps to ascertain the consequences of the different courses of action. The decision maker will cycle through different possible courses of actions; if one does not work, he or she will proceed to the next course of action and continue until he or she comes up with the first effective course of action. The third variation takes the form of "If, then (???)," where the decision maker considers other outcomes of a reaction. However, this is where inexperience is relevant. Inexperienced decision makers are more likely to develop different types of courses of action before choosing the most efficient one.

NDM is highly relevant to the leaders or officers of organizations that are affiliated with emergency services such as firefighting, search and rescue units, police, and other emergency services. NDM is applied to both the experienced and the inexperienced, and to the ways in which they manage their decision making processes. The NDM model is developed as samples for organizations on how important decisions can affect important situations--either saving or losing lives. The model developed can be used as a study mechanism to enable an organization to fill in the gaps and to determine which type of NDM is most applicable to that organization.