

Management and Organizational Behavior

Information and Decision Making

Information and Knowledge

- Data
- Information

Useful Information Characteristics

- Timeliness
- Quality
- Completeness
- Relevance
- Understandability

Information and Knowledge

- Data
- Information

- Knowledge
- Intellectual Capital
- Knowledge management

Information and Knowledge

- Computer Competency

- Information Competency

- MIS Competency

Information and Knowledge

- Information Technology
 - Changes within organizations
 - Changes in external relations
 - Electronic commerce

Uses of Information

- Information exchange with external environment
 - Gather intelligence information
 - Provide public information
- Internal information exchanges

Information Systems Success Factors

- Technical quality of the system
- Participation and involvement of users in systems design
- Management support of the system

Information Systems

- Decision Support Systems (DSS) – use special software to allow people to interact directly with a computer to organize and analyze data for solving complex and sometimes unstructured problems.
- Group Decision Support Systems (GDSS) – interactive computer-based information systems that facilitate group efforts to solve complex and unstructured problems.

Information Systems

- Artificial Intelligence (AI) – Computer systems with the capacity to reason the way people do.
- Expert Systems – software systems that use AI to mimic the thinking of human experts, thereby offering consistent and “expert” advice to decision makers.

Information Systems

- Intranets – use special software to allow persons working in various locations within the same organization to share databases and communicate electronically.
- Enterprise-wide networks – use fully integrated IT to move information quickly and accurately within an organization.
- Extranets – use the public Internet to allow communication between the organization and elements in its external environment.

Information and Decision Making

- Problem – the difference between an actual and a desired situation
- Problem solving – the process of identifying a discrepancy and taking action
- Decision – a choice among alternative courses of action

Problem/Decision Continua

- Situation
certain — risk — uncertain
- Problem
structured — unstructured
- Decision Type
programmed — nonprogrammed

Information and Decision Making

- Crisis decision making
 - A crisis involves an unexpected problem that can lead to disaster if not resolved quickly and appropriately.
 - An extreme type of nonprogrammed decision must be made.
 - Crisis management may be the ultimate test of problem-solving capabilities.
 - Proactive managers develop basic contingency plans for dealing with likely crisis situations.

Managers and Decision Making

- Problem avoiders
- Problem solvers
- Problem seekers

- Systematic thinking
- Intuitive thinking
- Multidimensional thinking

Economic Model
Classical Decision Model

- Rational - maximize pleasure/minimize pain
- Economic motive
- Perfect and complete information
- Choose optimal

Administrative Model
Behavioral Decision Model

- Bounded rationality - limited capacity to know & choose
- Several motives - social, economic
- Incomplete, imperfect information
- Choose to satisfice

Five Step Decision Process

- Identify and define the problem
- Generate and evaluate alternative solutions
- Select preferred solution and conduct ethics double check

Ethics Double Check

- Any decision should meet “ethics double check”
 - How would I feel if my family finds out about this decision?
 - How would I feel if this decision were published in the local newspaper?

Five Step Decision Process

- Identify and define the problem
- Generate and evaluate alternative solutions
- Select preferred solution and conduct ethics double check
- Implement the solution
- Evaluate the results

Decision Making Biases

- Which is riskier:
 - Driving a car on a 400-mile trip?
 - Flying on a 400-mile commercial airline flight?
- 2. Are there more words in the English language:
 - That begin with “r”?
 - That have “r” as the third letter?

Decision Making Biases

3. Mark is finishing his MBA at a prestigious university. He is very interested in the arts and at one time considered a career as a musician. Is Mark more likely to take a job:
- In the management of the arts?
 - With a management consulting firm?

Decision Making Biases

4. You are about to hire a new central-region sales director for the fifth time this year. You predict that the next director should work out reasonably well since the last four were "lemons" and the odds favor hiring at least one good sales director in five tries. Is this thinking
- Correct?
 - Incorrect?

Decision Making Biases

5. A newly hired engineer for a computer firm in the Boston metropolitan area has 4 years' experience and good all-around qualifications. When asked to estimate the starting salary for this employee, a chemist with very little knowledge about the profession or industry guessed an annual salary of \$35,000. What is your estimate?

Decision Making Biases

- Availability Heuristic – The safety record for flying is far better than that for driving, BUT most people respond that flying is riskier.
- Availability Heuristic – Most say, incorrectly, “start with ‘r’.”

Availability Heuristic

- Vivid events are remembered more easily and therefore are more available when making judgments.
- Easily organized and accessed information is more available and therefore is used in judgments.
- In general, people use information “readily available” from memory as a basis for assessing a current event or situation.

Decision Making Biases

- Representativeness Heuristic – Most people chose the management of the arts (a), but more MBAs actually go into management consulting firms (b).
- Representativeness Heuristic – Many people pick “correct” (a); however, the performance of the fifth sales director is independent of the first four.

Representativeness Heuristic

- People compare descriptions to their mental images, rather than consider the probabilities of the situation.
- People use intuition and the fact that the probability for the event is low to make their decision, forgetting that the events are independent.
- People assess the likelihood of something happening based upon its similarity to a stereotyped set of occurrences.

Decision Making Biases

5. Anchoring and adjustment heuristic –
What would your answer have been if the chemist's estimate had been \$85,000?

Anchoring and Adjustment Heuristic

- People develop estimates by starting from an initial point based on information provided and adjust from there to get a final answer.

Decision Making Biases

- Escalation of commitment - tendency to increase effort and apply more resources to a course of action that is not working
- Ways to avoid the escalation trap
 - Set advance limits.
 - Make your own decisions.
 - Carefully determine why you are continuing a course of action.
 - Remind yourself of the costs.
 - Watch for escalation tendencies.

Reduce Decision Making Biases

- Get observations from different people & different perspectives
- Seek information **in**consistent with one's beliefs
- Exposure to different social groups

Managers and Decision Making

- Group decision making pros
 - Greater amounts of information, knowledge, and expertise
 - More action alternatives are considered
 - Greater understanding and acceptance of outcomes
 - Increased commitment to final plans

Managers and Decision Making

- Group decision making cons
 - Pressure to conform
 - A few people dominate
 - Decision making takes longer

Learning Organization

- Mental models – everyone sets aside old ways of thinking
- Personal mastery – everyone becomes self-aware and open to others
- Systems thinking – everyone learns how the organization works
- Share vision – everyone understands and agrees to a plan of action
- Team learning – everyone works together to accomplish the plan
