Chapter 2

- Decision = a choice among two or more alternatives
- Decision-Making Process
    - Step 1: Identify a Problem:
        - Problem = an obstacle that makes it difficult to achieve a desired goal or purpose
        - Decisions start with a *problem*, between existing & desired condition
    - Step 2: Identify the decision criteria:
        - Decision criteria = factors important to solving problem
    - Step 3: Allocate weights to criteria:
        - If relevant criteria aren't equally important, then choose which ones are more important
    - Step 4: Develop alternatives:
        - List other alternative solutions
    - Step 5: analyze alternatives:
        - Use criteria to analyze choices
    - Step 6: select an alternative:
        - Choose choice with highest total from criteria
    - Step 7: Implement the alternative:
        - Commit to the decision and follow through with choice
    - Step 8: Evaluate decision effectiveness:
        - Reflect on the outcome of decision
        - If it went wrong, why?
- Planning decisions:
    - What are the organization's long-term objectives?
    - What strategies will best achieve those objectives?
    - What should the organization's short-term objectives be?
    - How difficult should individual goals be?
- Organizing decisions:
    - How many employees should I have report directly to me?
    - How much centralization should there be in an organization?
    - How should jobs be designed?
    - When should the organization implement a different structure?
- Leading decisions:
    - How do I handle employees who appear to be unmotivated?
    - What is the most effective leadership style in a given situation?
    - How will a specific change affect worker productivity?
    - When is the right time to stimulate conflict?

- Controlling decisions:
    - What activities in the organization need to be controlled?
    - How should those activities be controlled?
    - When is a performance deviation significant?
    - What type of management information system should the organization have?
- Rational decision making = choices are logical, consistent, maximize value
- Bounded rationality = rational decision making, limited by person's ability to process info
- Satisfice = accepting solutions that are "good enough"
- Intuitive decision making = decisions on basis of experience, feelings, accumulated judgment
    - Experience (past), affect (emotions), cognitive (knowledge), subconscious, values (ethics)
- Evidence-based management = systematic use of best available evidence to improve management practice \
- Crowdsourcing = decision-making approach with input/ideas from network of people outside traditional set of decision makers
- Structured problems = straightforward, familar, easily defined problems
- Programmed decisions = repetitive decisions that can be handled by routine approach
    - Procedure - series of sequential steps to respond to well-structured problem
    - Rule - explicit statement tells managers what can/cannot be done
    - Policy - guideline for making decisions
- Unstructured problems = new/unusual problems with ambiguous info
- Nonprogrammed decisions = unique and nonrecurring, custom solutions
- Decision making styles:
    - Directive - low tolerance ofr ambiguity, look for rationale
    - Analytic - look for rationale, but higher tolerance for ambiguity
    - Conceptual - intuitive decision, high tolerance ambiguity
    - Behaviroal - intuitive decision, low tolerance ambiguity
- Heuristics = rule of thumb, can lead to bias and error
- Decision making biases/ errors:
    - Overconfidence
    - Immediate gratification
    - Anchoring effect - fixating on initial information
    - Selective perception bias - organizing/interperting events based on biased perceptions
    - Confirmation bias - trying to reaffirm past choices, ignoring other evidence

    - Framing bias - selecting certain aspects while ignoring other aspects
    - Availability bias - only focusing on most recent events
    - Representation bias - seeing identical situations when non exist
    - Randomness bias - creating meaning out of random events
    - Sunk cost error - current choices cannot correct past, don't think future
    - Self-serving bias - credit for your success, blame others for failure
    - Hindsight bias - think they would've known outcome of event after it happens
- Big data = vast amount of quantifiable data to be analyzed
- AI = artificial intelligence
    - Machine learning
    - Deep learning
    - analytics