

# **Business Skills and Performance Management**

**Lecture Title:**  
**Theories of Thinking, Problem-Solving & Decision Making**



**Lecturer: Nathalie Xuereb Saydon**

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Human Resources Management**

# **Learning Objectives**

- Critically evaluate theoretical approaches to decision-making and problem-solving**
- Identify limitations of rational models in real-world contexts**
- Apply behavioural and group decision-making concepts to business scenarios**



# Group Discussion

**“Why do some decisions in business turn out differently than expected, even when all the facts seem clear?”**



# Reasons Why Business Decisions Turn Out Differently Than Expected

| Category                                     | Key Points                                                                                                                                                                                           |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cognitive &amp; Psychological Factors</b> | <ul style="list-style-type: none"><li>- Biases &amp; heuristics (e.g., confirmation bias, overconfidence)</li><li>- Emotions, stress, and framing effects</li></ul>                                  |
| <b>Limitations of Rational Models</b>        | <ul style="list-style-type: none"><li>- Bounded rationality (limited info &amp; processing capacity)</li><li>- Complexity &amp; uncertainty</li><li>- Simplified models may overlook risks</li></ul> |
| <b>Group &amp; Organizational Dynamics</b>   | <ul style="list-style-type: none"><li>- Groupthink &amp; consensus pressure</li><li>- Conflicts of interest</li><li>- Communication gaps</li></ul>                                                   |
| <b>Environmental &amp; External Factors</b>  | <ul style="list-style-type: none"><li>- Market volatility &amp; competition</li><li>- Technological disruption</li><li>- Unpredictable stakeholder behavior</li></ul>                                |

# Group Discussion

**“Why is it important to have a good understanding about thinking, problem-solving, and decision making?”**



# **Reasons to Study Thinking, Problem-Solving, & Decision Making**

| <b>Reason to Study</b>                          | <b>Explanation</b>                                                                                 |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Improve Decision Quality</b>                 | <b>Make more informed, rational, and effective decisions; reduce errors from biases.</b>           |
| <b>Enhance Problem-Solving Skills</b>           | <b>Use structured approaches to tackle complex or novel problems; encourage creative thinking.</b> |
| <b>Understand Human Behavior</b>                | <b>Explain why individuals or groups make certain choices under uncertainty or pressure.</b>       |
| <b>Apply to Real-World Contexts</b>             | <b>Improve management, teamwork, negotiation, and leadership effectiveness.</b>                    |
| <b>Prepare for Complexity &amp; Uncertainty</b> | <b>Recognize limitations of rational models; develop adaptive and flexible strategies.</b>         |
| <b>Link Theory to Practice</b>                  | <b>Bridge academic theories with practical scenarios; promote reflective thinking.</b>             |



# Theories Related to Thinking



# Dual Process Theory

**Dual-Process Theory suggests that human thinking operates via two distinct systems, often called System 1 and System 2, each with different characteristics, strengths, and limitations.**

| <b>Feature</b>          | <b>System 1 (Intuitive Thinking)</b>                               | <b>System 2 (Analytical Thinking)</b>                         |
|-------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|
| <b>Speed</b>            | Fast, automatic                                                    | Slow, deliberate                                              |
| <b>Effort</b>           | Low effort, effortless                                             | High effort, requires concentration                           |
| <b>Consciousness</b>    | Largely unconscious                                                | Fully conscious                                               |
| <b>Processing Style</b> | Uses heuristics and patterns                                       | Logical, step-by-step analysis                                |
| <b>Strengths</b>        | Efficient for routine/familiar decisions; good under time pressure | Accurate for complex, novel, or high-stakes decisions         |
| <b>Limitations</b>      | Prone to biases and errors in complex situations                   | Time-consuming; can be overridden by System 1 under stress    |
| <b>Example</b>          | Quick judgment based on past experience                            | Conducting a detailed cost-benefit analysis before a decision |

# **Dual Process Theory**

## **Interaction Between Systems**

**Most real-world decision-making involves a combination of both systems.**

**System 1 often generates a first impression or intuition**

**System 2 evaluates or corrects it.**

**Errors often occur when System 1 dominates in situations that require careful analysis, or when System 2 fails to engage effectively.**



# Relevance of Dual-Process Theory in Business

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- **Trust Intuition When Appropriate**
  - Use System 1 for familiar, low-risk decisions
- **Spot Potential Biases**
  - Recognize errors in snap judgments; involve diverse perspectives
- **Balance Speed and Accuracy**
  - Use System 2 for complex, high-stakes decisions; combine with System 1 for efficiency
- **Support Innovation & Risk Management**
  - Rapid idea generation (System 1) + structured evaluation (System 2).



# **Intuitive Vs. Analytical Thinking**

**Work out the following problem in the shortest time possible.  
Write answer on a paper and raise your hand as soon as you  
have the answer –**



**“A bat and a ball cost €1.10 in total. The bat costs €1 more than the ball. How much does the ball cost?”**

# **Intuitive Vs. Analytical Thinking**

**Rethink the problem carefully and take your time to give the answer.**



**“A bat and a ball cost €1.10 in total. The bat costs €1 more than the ball. How much does the ball cost?”**

# Intuitive Vs. Analytical Thinking

**The correct answer is €0.05**

Correct calculation: Let ball =  $x \rightarrow$  bat =  $x + 1 \rightarrow x + (x + 1) = 1.10 \rightarrow x = 0.05$



**The exercise illustrates how System 1 generates fast, automatic responses while System 2 requires effort but reduces errors.**

# Group Discussion

**“Discuss within your respective teams:-**

- 1. When should you engage in intuitive thinking in management?**
- 2. When should you engage in analytical thinking in management?**



# When to Engage Intuitive Thinking in Management

| When to Use Intuitive Thinking                 | Example                                         |
|------------------------------------------------|-------------------------------------------------|
| <b>Routine or Familiar Decisions</b>           | Daily staffing or approving routine orders      |
| <b>Time-Sensitive Situations</b>               | Responding quickly to a sudden client request   |
| <b>Decisions Based on Experience/Expertise</b> | An experienced negotiator sensing the best deal |
| <b>Simple or Low-Risk Decisions</b>            | Choosing office supplies or scheduling meetings |
| <b>Idea Generation / Creative Thinking</b>     | Brainstorming new marketing campaign concepts   |

# When to Engage Analytical Thinking in Management

| <b>When to Use Analytical Thinking</b>         | <b>Example</b>                                                 |
|------------------------------------------------|----------------------------------------------------------------|
| <b>High-Stakes Decisions</b>                   | <b>Mergers, major investments, entering new markets</b>        |
| <b>Complex or Unfamiliar Situations</b>        | <b>Launching a product in an unfamiliar market</b>             |
| <b>Conflicting or Ambiguous Information</b>    | <b>Choosing between suppliers with differing metrics</b>       |
| <b>Patterns Are Unclear / Novel Problems</b>   | <b>Responding to sudden regulatory changes</b>                 |
| <b>Potential for Cognitive Bias</b>            | <b>Evaluating a proposal from a favored colleague</b>          |
| <b>Need for Justification or Documentation</b> | <b>Board approvals, investor reporting, strategic planning</b> |



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# Cognitive Bias and Heuristics



“When we make decisions, we like to think we’re logical and rational. In reality, our brains often take shortcuts to save time and effort. These shortcuts are called **heuristics** – quick rules of thumb that help us make judgments without overthinking. They’re useful in everyday life but can sometimes mislead us.



From these shortcuts, we also develop **cognitive biases** – predictable errors in judgment where we consistently see the world in a distorted way. These biases shape the way managers and leaders make choices, often without realizing it.



Understanding heuristics and biases is important because they can explain why smart people sometimes make poor decisions – and how we can design processes to reduce those errors.”

# Heuristics - (Mental Shortcuts)

**Definition:** Simple strategies or “rules of thumb” that allow people to make decisions quickly without exhaustive analysis. They reduce cognitive load and are often useful in everyday problem-solving.

| Heuristic          | Meaning                                                                | Business Example                                                                       |
|--------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Availability       | Judging likelihood of events based on how easily examples come to mind | Overestimating cyberattack risks after hearing about one in the news                   |
| Representativeness | Assessing probability by comparing to a stereotype or prototype        | Assuming a startup will succeed because it resembles a famous success story            |
| Anchoring          | Relying heavily on the first piece of information (the “anchor”)       | Initial supplier quote strongly influencing the final negotiation outcome              |
| Affect             | Letting emotions or feelings drive judgments                           | Choosing a vendor because you “like” the salesperson, not because of the data          |
| Recognition        | Preferring the option that is most familiar or well-known              | Selecting a brand simply because it’s widely recognized, not because it’s the best fit |

# Cognitive Biases: Systematic Errors in Thinking

Definition:- Predictable deviations from rational judgment that arise from reliance on heuristics, emotions, or social pressures.

| Bias                | Meaning                                                            | Business Example                                                                          |
|---------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Confirmation Bias   | Seeking or valuing only information that supports existing beliefs | A manager ignores negative feedback and only highlights data that supports their strategy |
| Overconfidence Bias | Overestimating one's knowledge, predictions, or control            | Leaders forecasting overly optimistic sales despite market uncertainty                    |
| Framing Effect      | Different decisions made depending on how information is presented | A proposal described as "90% success" is seen more positively than "10% failure"          |
| Hindsight Bias      | Seeing past events as more predictable than they were              | Claiming "we should have known" after a market crash                                      |
| Status Quo Bias     | Preferring to maintain current conditions rather than change       | An organization sticking with outdated software instead of upgrading                      |

# **Impact of Heuristics and Bias**

- **Strategic decisions may be distorted by overconfidence, leading to over-expansion or risky mergers.**
- **Operational decisions may rely on availability or anchoring, resulting in poor forecasting or biased supplier evaluations.**
- **Group decisions may amplify biases through conformity, groupthink, or shared assumptions.**
- **Result: Biases often lead to predictable, systematic errors that undermine business performance.**



# **Mitigation Strategies**

- **Awareness and Training:** Encourage critical thinking and awareness of common biases.
- **Structured Decision-Making:** Use checklists, decision matrices, or cost–benefit analyses to slow down thinking.
- **Devil’s Advocate & Red Teams:** Assign individuals to challenge assumptions and test alternative scenarios.
- **Data and Evidence-Based Approaches:** Rely on objective data rather than gut feelings alone.
- **Decision Audits:** Review past decisions to learn how biases influenced outcomes



# **Concept Formation & Mental Models**



# Concept Formation

| Aspect       | Explanation                                                                                    | Business Example                                             |
|--------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Definition   | Organizing experiences or information into categories (concepts) to simplify the world         | Grouping market trends into “growth” vs. “decline”           |
| Function     | Reduces complexity, aids recognition and prediction                                            | Classifying customers as “loyal,” “occasional,” or “at-risk” |
| Implications | Shapes how managers frame problems and solutions; misclassification can lead to poor decisions | Mislabeling a disruptive technology as a “niche trend”       |

# Mental Models

| Aspect      | Explanation                                                                                       | Business Example                                                            |
|-------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Definition  | Internal representations of how the world works, used to interpret information and make decisions | Investor applying a “supply & demand” model to predict prices               |
| Strengths   | Simplify complex problems; guide quick predictions and decisions                                  | Manager using a “hierarchy model” to organize roles and reporting lines     |
| Limitations | Can be incomplete, biased, or outdated if not revised                                             | Retailer sticking to a pre-digital model and failing to adapt to e-commerce |
| Application | Updating and challenging mental models improves adaptability, innovation, and leadership          | Netflix shifting from DVD rentals to a streaming model                      |

# **Application in Business**

- **Continuous Updating:** Managers must challenge and refresh their mental models to reflect new realities (e.g., digital disruption, AI, sustainability).
- **Decision-Making:** Clear mental models help frame problems, identify key variables, and predict consequences.
- **Innovation:** Shifting or breaking old mental models often sparks creativity (e.g., Netflix moving from DVDs to streaming).
- **Leadership:** Effective leaders make their mental models explicit so teams can align around shared ways of understanding the business environment.



# Scenario: Blockbuster's Outdated Mental Model



## - Mental Model Held:

Blockbuster saw its business primarily as a **physical video rental model**: brick-and-mortar stores, late fees as a major revenue stream, and customer visits as central to the experience.

## - Outdated Assumption:

The company assumed customers valued **in-store browsing and immediate access to DVDs** more than convenience or subscription-based services. They underestimated the shift toward **digital streaming and on-demand access**.

## - What Happened:

- Netflix introduced a new model: first DVD-by-mail subscriptions (no late fees), then streaming.
- Blockbuster dismissed Netflix's model as niche and unsustainable.
- As consumer behavior shifted toward convenience and digital access, Blockbuster's mental model became obsolete.

## - Outcome:

Blockbuster filed for bankruptcy in 2010, while Netflix grew into a global entertainment giant.



# **Strengths of Theories**

**A good understanding of theories will:-**

- Provide insight into cognition:** Help explain *why* humans think and decide the way they do (e.g., dual-process theory highlights the tension between intuition and analysis).
- Provide practical frameworks:** Provide managers with structured approaches to diagnose problems, analyze alternatives, and reduce errors.
- Offer predictive value:** Many models (e.g., heuristics, groupthink) help predict common mistakes and biases, allowing leaders to anticipate and prevent them.
- Lead to improvement of practice:** Theories support training, decision protocols, and tools (decision trees, scenario planning) that improve quality and consistency.



# Limitations of Theories

- **Descriptive vs. Prescriptive:** Many theories explain *how* people think but not necessarily *how they should think* to make optimal decisions.
- **Overemphasis on Cognition:** Some models downplay the role of emotions, politics, power, and culture in real-world organizational settings.
- **Context Boundaries:** Theories may not transfer well across contexts—what works in controlled experiments may fail in dynamic, high-stakes business environments.
- **Simplification of Reality:** Theories necessarily reduce complexity; overreliance on one model risks ignoring other critical factors (e.g., social dynamics, technology shifts).
- **Bias in Theories Themselves:** Some models reflect Western, individualistic assumptions and may not generalize globally.



# Theory Application in Business

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- **Theories provide useful tools but are not flawless roadmaps.**
- **Effective managers treat them as guiding lenses, not absolute truths.**
- **Success often comes from integrating multiple perspectives—rational analysis, behavioral insights, emotional intelligence, and cultural awareness.**



# **Problems-Solving Approaches**



# Problem Solving Models

| Framework                                  | Key Steps / Description                                                                                                                                                                | Business Application                                                                                                                       |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IDEAL Model (Bransford &amp; Stein)</b> | Identify problem → Define/represent → Explore strategies → Act → Look back/evaluate                                                                                                    | Structured approach to strategy, operations, and organizational problem-solving; encourages reflection and learning from outcomes          |
| <b>The Scientific Method</b>               | 1. Ask a question / define problem →<br>2. Conduct research / gather data →<br>3. Formulate hypothesis →<br>4. Test hypothesis / experiment →<br>Analyze results →<br>Draw conclusions | Evidence-based decision-making; testing business strategies, market research, or product development decisions                             |
| <b>5 Whys Technique</b>                    | Repeatedly ask “Why?” (typically 5 times) to identify root cause → Develop corrective actions                                                                                          | Operational problem-solving, quality management, and troubleshooting; e.g., identifying causes of production delays or customer complaints |
| <b>Polya’s 4-Step Model</b>                | 1. Understand the problem →<br>2. Devise a plan →<br>3. Carry out the plan →<br>4. Review / reflect on solution                                                                        | Logical problem-solving framework applied to business strategy, project planning, and process improvement                                  |

# **Creative Problem Solving**

- **Divergent Thinking:** Generating many possible solutions, encouraging creativity, brainstorming, “thinking outside the box.”
  - *Example:* A team generating 50 ideas for new product features.
- **Convergent Thinking:** Narrowing options down to the most viable, logical, and realistic solutions.
  - *Example:* Selecting the top 3 product ideas based on feasibility and customer needs.
- **Balance:** Effective business problem-solving requires both divergent (idea generation) and convergent (evaluation) thinking.



# Problem Solving Model Group Exercise



# Decision Making Models



# Rational Decision Making Model

| Step                                 | Description                                                  | Business Example                                                             |
|--------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>1. Define the Problem</b>         | <b>Clearly identify the issue to be solved</b>               | <b>Declining sales in a product line</b>                                     |
| <b>2. Identify Decision Criteria</b> | <b>Determine factors that will influence the choice</b>      | <b>Price, quality, customer reach, cost</b>                                  |
| <b>3. Weight the Criteria</b>        | <b>Assign relative importance to each factor</b>             | <b>Customer reach = 40%, cost = 30%, quality = 30%</b>                       |
| <b>4. Generate Alternatives</b>      | <b>List all possible options</b>                             | <b>Launch new marketing campaign, reduce price, improve product features</b> |
| <b>5. Evaluate Alternatives</b>      | <b>Assess each option against criteria</b>                   | <b>Compare cost, impact, feasibility for each option</b>                     |
| <b>6. Choose Optimal Solution</b>    | <b>Select the alternative that maximizes overall benefit</b> | <b>Improve product features and launch targeted marketing</b>                |
| <b>7. Implement and Review</b>       | <b>Put the decision into action and evaluate results</b>     | <b>Track sales performance after changes and adjust as needed</b>            |

# Limitations of Rational Decision Making Model

- **Information Overload:** Real-world business problems often involve too much or conflicting data.
- **Uncertainty and Dynamic Environments:** Markets, technology, and regulations change quickly, making fully rational analysis impractical.
- **Human and Organizational Factors:** Emotions, politics, culture, and social pressures influence decisions, often in ways that rational models don't account for.
- **Time Constraints:** In fast-paced business situations, managers cannot follow step-by-step rational processes.



# Bounded Rationality and Satisficing (Herbert Simon)

| Concept             | Description                                                                                                       | Business Example                                                               |
|---------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Bounded Rationality | Humans have limited cognitive capacity, information, and time, so fully rational decisions are often impossible   | A manager evaluating a new market with incomplete data and limited time        |
| Satisficing         | Choosing the first acceptable option that meets minimum criteria rather than the optimal solution                 | Hiring a candidate who meets key requirements without reviewing all applicants |
| Strengths           | Reflects real-world constraints; allows faster decision-making                                                    | Quick vendor selection to meet a product launch deadline                       |
| Limitations         | May overlook better alternatives; relies on subjective judgment                                                   | Risk of missing the most cost-effective supplier or the best candidate         |
| Application Tip     | Use when time, information, or cognitive resources are limited; combine with structured evaluation where possible | Startup teams making fast operational decisions in dynamic environments        |

# **Real-World Business Examples**

## **- Rational Decision-Making:**

- **Amazon's detailed analytics for warehouse location and inventory management.**
- **Investment banks using quantitative models to select portfolios.**

## **- Bounded Rationality / Satisficing:**

- **Start-ups choosing a vendor quickly to meet launch deadlines rather than evaluating every option.**
- **Managers selecting a marketing campaign that is “good enough” given limited budget and time.**



# Behavioural Decision Theory

- **Definition:** Focuses on how people actually make decisions, considering psychological, cognitive, and emotional influences, rather than assuming purely rational behavior.

- **Key Concepts:**

- **Prospect Theory (Kahneman & Tversky, 1979):**
  - People evaluate potential losses and gains differently.
  - Losses are psychologically felt more strongly than equivalent gains.
  - *Example:* A manager avoids a risky but profitable project because the potential loss feels worse than the possible gain.
- **Loss Aversion:**
  - Tendency to prefer avoiding losses over acquiring equivalent gains.
  - Impacts investment, pricing, and strategic choices.
  - *Example:* Companies sticking with outdated products rather than innovating due to fear of failure.

# **Group Decision Making**

- **Definition:** Decision-making that occurs in a group or team setting, leveraging multiple perspectives but influenced by social dynamics.
- **Key Models & Techniques:**
  - **Groupthink:**
    - Tendency for groups to **prioritize consensus over critical evaluation**, often leading to poor decisions.
    - *Example:* Board of directors approving a risky merger without dissenting opinions.
  - **Brainstorming:**
    - Encourages **free generation of ideas** without immediate judgment.
    - Promotes creativity and divergent thinking in teams.
    - *Example:* Marketing team generating 50 ideas for a new campaign.
  - **Delphi Technique:**
    - Structured, iterative process where **experts provide anonymous input** until consensus emerges.
    - Reduces bias from dominant individuals or group pressure.
    - *Example:* Forecasting industry trends using expert opinions in multiple rounds.







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