



Business School
UNIVERSITY OF COLORADO DENVER

Information Systems Program

Business Intelligence Concepts, Tools, and Applications

Week 1: Decision Making and Decision Support Systems
Lesson 1: Overview of Decision Making



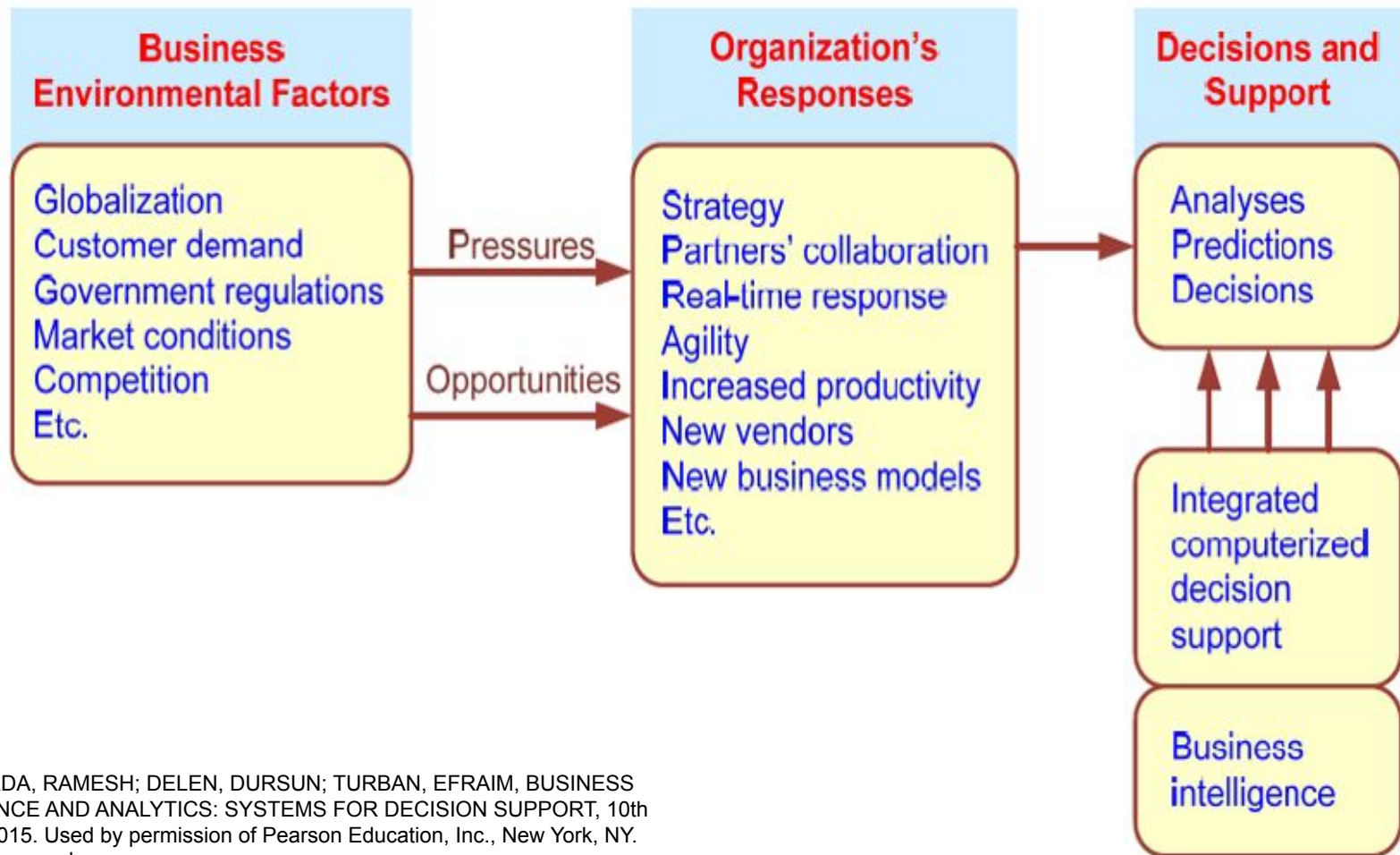
Overview of Decision Making

- **Learning Objectives**

- Identify role of computerized support for decision making and explain its importance
- List the different types of decisions managers face, and the process through which they make a decision.



Business Pressures–Responses–Support Model



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Decision Making

- Is a process of
 - choosing among two or more alternative courses of action for the purpose of attaining one or more goals.
- It is influenced by
 - behavioral and scientific disciplines.



Managerial Roles

- **Interpersonal roles**
 - *Figurehead*
 - *Leader*
 - *Liaison*
- **Informational roles**
 - *Monitor*
 - *Disseminator*
 - *Spokesman*
- **Decisional roles**
 - *Entrepreneur*
 - *Disturbance handler*
 - *Resource locator*
 - *Negotiator*

Sources: (1) Compiled from H. A. Mintzberg, *The Nature of Managerial Work*. Prentice Hall, Englewood Cliffs, NJ, 1980; and (2) H. A. Mintzberg, *The Rise and Fall of Strategic Planning*. The Free Press, New York, 1993.



Managerial Responsibilities

- Planning
- Organizing
- Commanding
- Controlling
- Coordinating

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Decision Making Steps

- Define the problem
- Construct a model
- Identify & Evaluate possible solutions
- Compare, choose, and recommend a potential solution to the problem



Decisions Making Scenarios

- Structured Decisions
 - established situation, programmable decision, situation fully understood, routine, specialized mfg. process
- Unstructured Decisions
 - emergent situation, creative decision, situation unclear, one-shot, general processes
- Semi-structured decisions
 - have some structured elements and some unstructured elements

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Decision Making Constraints & Complexities

- Evaluating what-if scenarios
- Experimentation with a real system
- Changes in the decision-making environment may occur continuously
- Time pressure on the decision maker
- Analyzing a problem takes time/money
- Insufficient or too much information
- Accuracy versus speed
- Effectiveness versus efficiency

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Decision Making Support

- Group communication and collaboration
- Improved data management
- Giant data warehouses and big data
- Analytical support
- Overcoming cognitive limits in information processing and storage
- Knowledge management
- The ability to access information anywhere, anytime

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