

# CFE – Strategic Decision Making Exam

Spring 2022/Fall 2022

## Important Exam Information:

### [Exam Registration](#)

Candidates may register online or with an application.

### [Order Study Notes](#)

Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.

### Syllabus Readings

Readings listed in this syllabus may include study notes, online readings and textbooks. Candidates are responsible for all readings in their entirety, including sections such as Appendices, unless it is stated otherwise in the syllabus.

### [Introductory Study Note](#)

The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.

### [Overview Study Note](#)

Study Note SDM-20-20 is designed to provide an overview of the CFE Track and this exam. Candidates should read it prior to beginning preparation for the exam. While it can be a valuable aid in preparation, the material in this note will not be tested.

### [Case Study](#)

The case study will be provided with the examination. Candidates will not be allowed to bring their copy of the case study into the examination room.

### [Past Exams](#)

Past Exams from 2000 - present are available on the SOA website.

### [Updates](#)

Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

<b>1. Topic: Introduction to Strategic Management</b>
<b>Learning Objectives</b>
The candidate will understand and apply strategic management concepts and frameworks to develop an organization's financial and ERM solutions.
<b>Learning Outcomes</b>
The Candidate will be able to:  a) Evaluate and apply strategic management concepts, recognizing factors that affect development and implementation of strategies:  i. Analyze an organization's external environment and the internal organization  ii. Describe and apply strategic management models, including Porter's five forces and value chain analysis  iii. Describe types of business-level strategies and recommend an appropriate business-level strategy for a given situation  iv. Explain the impact of competitive dynamics on strategic management  b) Evaluate commonly used business strategies and their application under different economic, risk and business environments:  i. Critique and evaluate internal/organic and external/inorganic growth strategies  ii. Assess and recommend business strategies under different business situations and market opportunities, utilizing the applicable strategic or change management models
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Competitive Advantage: Creating and Sustaining Superior Performance</i>, Porter, Michael E., 1998<ul style="list-style-type: none"><li>○ Ch. 2: The Value Chain and Competitive Advantage (pp. 33-39, excluding Identifying Value Activities)</li><li>○ Ch. 3: Cost Advantage (pp. 62-88, excluding Cost of Purchased Inputs)</li><li>○ Ch. 4: Differentiation (pp. 119-135, excluding Lowering Buyer Cost)</li><li>○ Ch. 7: Industry Segmentation and Competitive Advantage</li></ul></li><li>• <i>Strategic Management: Competitiveness and Globalization, Concepts</i>, Hitt, Michael, Ireland, Duane, and Hoskisson, Robert, 13<sup>th</sup> Edition, 2020<ul style="list-style-type: none"><li>○ Ch. 1: Strategic Management and Strategic Competitiveness</li><li>○ Ch. 2: External Environment: Opportunities, Threats, Industry Competition, and Competitor Analysis</li><li>○ Ch. 3: Internal Organization: Resources, Capabilities, Core Competencies and Competitive Advantages</li><li>○ Ch. 4: Business- Level Strategy</li><li>○ Ch. 5: Competitive Rivalry and Competitive Dynamics</li><li>○ Ch. 7: Merger and Acquisition Strategies (sections 7.1-7.4)</li></ul></li></ul>

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- Ch. 9: Cooperative Strategy
- Ch. 13: Strategic Entrepreneurship
- SDM-138-14: When and When Not to Vertically Integrate
- SDM-179-19: Strategy to Beat the Odds
- SDM-191-22: What Everyone Gets Wrong about Change Management
- SDM-192-22: Cultural Change that Sticks
- SDM-193-22: Accelerate!

## 2. Topic: Strategic Budgeting and Value Measures

### Learning Objectives

The candidate will understand how sustainable growth and value can be created through strategic budgeting. The candidate will also understand measures of an organization's value and their uses in decision making.

### Learning Outcomes

The Candidate will be able to:

- a) Explain how strategic budgeting can create value and sustainable growth
- b) Assess how effective strategic budgeting is in tracking progress of an organization's initiatives
- c) Demonstrate how an organization's strategic goals can be effectively incorporated into the financial budgeting decision making process
- d) Evaluate and recommend appropriate value measures for an organization
- e) Assess the impact of performance measures and incentives on key business decisions and stakeholder value

### Resources

- *Handbook of Budgeting*, Lalli, William R., 6<sup>th</sup> Edition, 2012
  - Ch. 2: Strategic Balanced Scorecard-Based Budgeting and Performance Management
  - Ch. 6: Relationship between Strategic Planning and the Budgeting Process
  - Ch. 15: Budgeting Shareholder Value (pp. 285-296)
  - Ch. 17: Budgets and Performance Compensation
  - Ch. 29: Budgeting: Key to Corporate Performance Management (pp. 659-665)
  - Ch. 30: Zero-Based Budgeting
- *Damodaran on Valuation*, Damodaran, Aswath, 2<sup>nd</sup> Edition, 2006
  - Ch. 7: Relative Valuation: First Principles
  - Ch. 9: Value Multiples
  - Ch. 11: Employer Equity Options and Compensation
  - Ch. 13: The Value of Control
  - Ch. 14: The Value of Liquidity (pp. 508-539)
- SDM-172-18: CFO Forum: Market Consistent Embedded Value Basis for Conclusions, April 2016

### 3. Topic: Decision Modeling and Optimization

#### Learning Objectives

The candidate will understand how to apply decision making models to general managerial decisions within specified constraints.

#### Learning Outcomes

The Candidate will be able to:

- a) Apply fundamental techniques and frameworks of management science to make informed business decisions:
  - i. Apply linear optimization models to managerial decisions
  - ii. Develop decision trees, scenario tests, and simulation models
- b) Apply statistical and quantification methods to analyze managerial decisions with uncertain conditions:
  - i. Apply probability distributions to business situations with random variables
  - ii. Construct optimization models utilizing probability theories
- c) Evaluate business decisions using quantitative and statistical methods

#### Resources

- *Data, Models and Decisions: The Fundamentals of Management Science*, Bertsimas, Dimitris and Freund, Robert, 2004
  - Ch. 1: Decision Analysis
  - Ch. 2: Fundamentals of Discrete Probability (background only)
  - Ch. 3: Continuous Probability Distributions and their Applications (background only)
  - Ch. 5: Simulation Modeling: Concepts and Practice
  - Ch. 7: Linear Optimization
  - Ch. 8: Nonlinear Optimization
  - Ch. 9: Discrete Optimization
  - Ch. 10: Integration in the Art of Decision Modeling
- SDM-194-22: The Hard Side of Change Management

<b>4. Topic: Modeling Complex Systems</b>
<b>Learning Objectives</b>
The candidate will understand how to analyze and model dynamic systems and evaluate the risks and sustainability of these complex systems.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Identify and model the dynamic processes within a complex system:<ul style="list-style-type: none"><li>i. Develop and apply causal loop diagrams that model the feedback structure of complex systems</li><li>ii. Apply stocks and flows to dynamic modeling</li><li>iii. Apply dynamic modeling to business decisions</li></ul></li><li>b) Explain the underlying factors that drive the sustainability and stability of a dynamic system:<ul style="list-style-type: none"><li>i. Evaluate the structure and behavior of dynamic systems</li><li>ii. Identify the factors that contribute to risk and instability in dynamic systems</li></ul></li><li>c) Evaluate complex systems and describe how these systems can mitigate risks and improve sustainability</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Business Dynamics</i>, Sterman, John D., 2000<ul style="list-style-type: none"><li>○ Ch. 3: The Modeling Process</li><li>○ Ch. 4: Structure and Behavior of Dynamic Systems</li><li>○ Ch. 5: Causal Loop Diagrams</li><li>○ Ch. 6: Stocks and Flows</li><li>○ Ch. 9: S-Shaped Growth: Epidemics, Innovation Diffusion, and the Growth of New Products</li><li>○ Ch. 11: Delays (sections 11.1-11.2.4, 11.2.6-11.3.1, 11.4-11.4.1)</li><li>○ Ch. 12: Coflows and Aging Chains</li><li>○ Ch. 15: Modeling Human Behavior: Bounded Rationality or Rational Expectations? (excluding Challenge section, pp. 624-628)</li><li>○ Ch. 17: Supply Chains and the Origin of Oscillations</li></ul></li><li>• <a href="#">How Business Dynamics Applies to Actuaries</a></li></ul>

## 5. Topic: Communication and Organizational Behavior

### Learning Objectives

The candidate will understand the role that organizational behavior and communication play in organizational decision making and efficacy, as well as understand how ineffective communication is a risk to organizations.

### Learning Outcomes

The Candidate will be able to:

- a) Apply best practice techniques to structure and communicate ideas logically and persuasively:
  - i. Explain differences between good and poor communication techniques and their implications
  - ii. Apply techniques to structure ideas logically
  - iii. Develop clear fact-based messages that can be communicated persuasively
- b) Evaluate the impact of human behavior factors on the effectiveness of decision-making processes within organizations:
  - i. Explain the role of cognitive biases on making suboptimal individual decisions
  - ii. Evaluate the role of organizational behavior on organizational decision-making processes and efficacy
- c) Evaluate the importance of communication to the decision-making processes, change management and implementation of organizational strategies:
  - i. Explain why communication is strategically important to organizations
  - ii. Describe how information is communicated within organizations
  - iii. Describe organizational and individual barriers to effective communication
  - iv. Identify the risks of ineffective communication
  - v. Explain how to overcome communication barriers and minimize risks of ineffective communication

### Resources

- *The Pyramid Principle: Logic in Writing and Thinking*, Minto, Barbara, 3<sup>rd</sup> Edition, 2010
  - Ch. 1: Why a Pyramid Structure?
  - Ch. 2: The Substructures within the Pyramid
  - Ch. 3: How to Build a Pyramid Structure
  - Ch. 5: Deduction and Induction: The Difference
  - Ch. 8: Questioning the Problem-Solving Process
- *Organizational Behavior*, Hitt, Michael, Miller, C. Chet, and Colella, Adrienne, 5<sup>th</sup> Edition, 2018
  - Ch. 9: Communication
  - Ch. 10: Decision Making by Individuals and Groups
  - Ch. 11: Groups and Teams

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○ Ch. 12: Conflict, Negotiation, Power and Politics

- SDM-184-19: Leaders as Decision Architects
- SDM-185-19: HBR – Outsmart your Own Biases
- SDM-186-19: A Case Study in Combating Bias
- SDM-187-19: 20 Cognitive Biases that Screw Up Your Decisions
- SDM-189-21: Capital Bias
- SDM-190-21: Loving the One You're With
- SDM-192-22: Cultural Change that Sticks