

CFE – Strategic Decision Making Exam

Spring 2020/Fall 2020

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.

1. Topic: Introduction to Strategic Management
Learning Objectives
The candidate will understand and apply strategic management concepts and frameworks to corporate financial and ERM business problems.
Learning Outcomes
The Candidate will be able to: a) Evaluate and apply strategic management concepts, recognizing factors that affect development and implementation of strategies: i. Analyze the firm’s external environment and the internal organization ii. Describe and apply models such as Porter's five forces iii. Define 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 growth 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 growth strategies under different business situations and market opportunities including innovation and market disruption
Resources
<ul style="list-style-type: none">• <i>Organizational Behavior</i>, Hitt, Michael, Miller, C. Chet, and Colella, Adrienne, 5th Edition, 2018<ul style="list-style-type: none">○ Ch. 13: Organizational Structure and Culture• <i>Strategic Management: Competitiveness and Globalization, Concepts</i>, Hitt, Michael, Ireland, Duane, and Hoskisson, Robert, 12th Edition, 2017<ul style="list-style-type: none">○ Ch. 1: Strategic Management and Strategic Competitiveness○ Ch. 2: External Environment: Opportunities, Threats, Industry Competition, and Competitor Analysis○ Ch. 3: Internal Organization: Resources, Capabilities, Core Competencies and Competitive Advantages○ Ch. 4: Business- Level Strategy○ Ch. 5: Competitive Rivalry and Competitive Dynamics○ Ch. 7: Merger and Acquisition Strategy (sections 7.1-7.4)○ 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

2. Topic: Accounting and Value Measures / Managerial Accounting

Learning Objectives

The candidate will understand measures of corporate value and their uses in corporate decision making.

Learning Outcomes

The Candidate will be able to:

- a) Assess various measures that firms can use to assess value and recommend appropriate measures to evaluate corporate value
- b) Assess how performance measures and incentives impact key business decisions and create value for shareholders:
 - i. Explain how managerial accounting can impact strategic decisions
 - ii. Explain and recommend methods a firm may use to allocate its costs and how these methods impact the perceived performance of a firm or its component lines of business

Resources

- *Accounting for Decision Making and Control*, Zimmerman, Jerold, 9th Edition, 2014
 - Ch. 4: Organizational Architecture
 - Ch. 5: Responsibility Accounting and Transfer Pricing (section A only)
 - Ch. 7: Cost Allocation: Theory
 - Ch. 9: Absorption Cost Systems
 - Ch. 10: Criticisms of Absorption Cost Systems: Incentive to Overproduce
 - Ch. 11: Criticisms of Absorption Cost Systems: Inaccurate Product Costs
 - Ch. 12: Standard Costs: Direct Labor and Materials
 - Ch. 13: Overhead and Marketing Variances
- *Damodaran on Valuation*, Damodaran, Aswath, 2nd Edition, 2006
 - Ch. 7: Relative Valuation: First Principles
 - Ch. 9: Value Multiples
 - Ch. 13: The Value of Control
 - Ch. 14: The Value of Liquidity (pp. 508-539 only)
- 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 business 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 situations and describe how quantitative and statistical methods can improve decision making

Resources

- *Data, Models and Decisions: The Fundamentals of Management Science*, Bertsimas, Dimitris and Freund, Robert, 2004
 - Ch. 1: Decision Analysis (excluding section 1.7)
 - Ch. 2: Fundamentals of Discrete Probability (excluding section 2.15; background only)
 - Ch. 3: Continuous Probability Distributions and their Applications (excluding section 3.9; background only)
 - Ch. 5: Simulation Modeling: Concepts and Practice
 - Ch. 7: Linear Optimization (excluding section 7.10)
 - Ch. 8: Nonlinear Optimization (excluding section 8.8)
 - Ch. 9: Discrete Optimization (excluding section 9.7)
 - Ch. 10: Integration in the Art of Decision Modeling

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

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 learn 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:
 - 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, 3rd 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, 5th Edition, 2018
 - Ch. 9: Communication
 - Ch. 10: Decision Making by Individuals and Groups
 - Ch. 11: Groups and Teams
 - Ch. 12: Conflict, Negotiation, Power and Politics

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- 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