

CFE – Strategic Decision Making Exam

Spring 2023/Fall 2023

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-20-23 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 to the current syllabus.

Corporate Finance & ERM – Strategic Decision Making Exam
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1. Topic: Introduction to Strategic Management

Learning Objectives

The candidate will understand and apply strategic management concepts and frameworks to develop an organization's financial and ERM solutions.

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. Describe and apply strategic management models, including Porter's five forces and value chain analysis
 - ii. Assess and recommend an appropriate business-level strategy for a given situation
 - iii. Assess and recommend an appropriate corporate-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

Resources

- *Strategic Management: Competitiveness and Globalization, Concepts*, Hitt, Michael, Ireland, Duane, and Hoskisson, Robert, 13th Edition, 2020
 - Ch. 6: Corporate-Level Strategy
 - Ch. 7: Merger and Acquisition Strategy (sections 7.1-7.4)
 - Ch. 9: Cooperative Strategy
- *Understanding Michael Porter, The essential Guide to Competition and Strategy*, Harvard Business Review Press, Joan Magretta, 2012
 - Part One: What is Competition?
 - Ch. 1: Competition: The Right Mind-Set
 - Ch. 2: The Five Forces: Competing for Profits
 - Ch. 3: Competitive Advantage: The Value Chain and Your P&L
 - Part Two: What is Strategy?
 - Ch. 4: Creating Value: The Core
 - Ch. 5: Trade-Offs: the Linchpin
 - Ch. 6: Fit: The Amplifier
 - Ch. 7: Continuity: The Enabler

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- 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., 6th 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, 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)
 - Ch. 15: The Value of Synergy

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

4. Topic: Modeling Complex Systems
Learning Objectives
The candidate will understand how 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 these systems 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. 11: Delays (sections 11.1-11.2.4, 11.2.6-11.3.1, 11.4-11.4.1)○ Ch. 12: Coflows and Aging Chains○ Ch. 15: Modeling Human Behavior: Bounded Rationality or Rational Expectations? (pp597-605 exclude Case Study)○ Ch. 17: Supply Chains and the Origin of Oscillations• How Business Dynamics Applies to Actuaries