Training Course on Game Theory for Executive Decision-Making

Professional Development Training Course Outline

Category	CEOs and Directors	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today's hyper-competitive and rapidly evolving global marketplace, **executive decision-making** demands more than just intuition. It requires a robust framework for anticipating competitive responses, understanding complex interactions, and optimizing outcomes under uncertainty. Game Theory, the **science of strategy**, provides precisely this analytical power. Training Course on Game Theory for Executive Decision-Making is meticulously designed to equip senior leaders, managers, and strategists with the **advanced analytical tools** and **strategic foresight** to navigate intricate business landscapes, transform challenges into opportunities, and consistently achieve superior results in a dynamic environment.

This program moves beyond theoretical concepts, focusing on the **practical application** of Game Theory principles to real-world **business challenges**. Participants will learn to model strategic interactions, predict competitor behavior, and design optimal strategies in diverse scenarios, including **negotiations, pricing strategies, market entry, mergers & acquisitions**, and **resource allocation**. By mastering **Nash Equilibrium**, **dominant strategies**, and **sequential games**, executives will unlock new levels of **strategic thinking** and **competitive advantage**, fostering a culture of data-driven, **informed decision-making** across their organizations.

Programme Curriculum

Training Course on Game Theory for Executive Decision-Making

Introduction

In today's hyper-competitive and rapidly evolving global marketplace, **executive decision-making** demands more than just intuition. It requires a robust framework for anticipating competitive responses, understanding complex interactions, and optimizing outcomes under uncertainty. Game Theory, the **science of strategy**, provides precisely this analytical power. Training Course on Game Theory for Executive Decision-Making is meticulously designed to equip senior leaders, managers,

and strategists with the **advanced analytical tools** and **strategic foresight** to navigate intricate business landscapes, transform challenges into opportunities, and consistently achieve superior results in a dynamic environment.

This program moves beyond theoretical concepts, focusing on the **practical application** of Game Theory principles to real-world **business challenges**. Participants will learn to model strategic interactions, predict competitor behavior, and design optimal strategies in diverse scenarios, including **negotiations, pricing strategies, market entry, mergers & acquisitions**, and **resource allocation**. By mastering **Nash Equilibrium**, **dominant strategies**, and **sequential games**, executives will unlock new levels of **strategic thinking** and **competitive advantage**, fostering a culture of data-driven, **informed decision-making** across their organizations.

Course Duration

10 days

Course Objectives

1. Develop the ability to anticipate competitor actions and market shifts using predictive analytics and scenario planning.
2. Apply advanced bargaining theory and cooperative game strategies to achieve mutually beneficial agreements.
3. Utilize information asymmetry and signaling games to gain a decisive edge in competitive landscapes.
4. Leverage quantitative modeling and decision matrix analysis for robust strategic choices.
5. Design optimal pricing models in oligopolistic markets and dynamic pricing scenarios.
6. Analyze market dynamics and deterrence strategies for successful market penetration or strategic withdrawal.
7. Optimize capital deployment and investment strategies through game-theoretic frameworks.
8. Develop strategies for risk management and decision-making under imperfect information.
9. Understand cooperative games and coalition formation to build strategic alliances.
10. Apply game theory to R&D investment and product launch strategies for sustained competitive advantage.
11. Equip leaders with frameworks for crisis management and strategic leadership in volatile environments.
12. Incorporate behavioral game theory to understand and influence human decision biases.
13. Cultivate the capacity for rapid, adaptive strategic adjustments in fast-paced environments.

Organizational Benefits

- Through optimized pricing, negotiation, and investment strategies.
- By anticipating and countering competitor moves, and identifying new market opportunities.
- Leading to fewer costly strategic missteps and more resilient operations.
- Ensuring capital and human resources are deployed for maximum impact.
- Cultivating a cadre of executives adept at complex strategic thinking.
- By encouraging structured analysis of new ventures and competitive threats.
- By embedding game-theoretic principles into organizational strategy and operations.

Target Audience

1. C-Suite Executives
2. Senior Managers & Directors
3. Business Development Leaders
4. Strategic Planning Professionals

5. Investment Managers & Analysts.
6. Marketing & Sales Executives
7. Legal & Compliance Professionals
8. Consultants & Advisors

Course Outline

Module 1: Foundations of Strategic Thinking & Game Theory

- Introduction to **Strategic Decision-Making** in organizations.
- Defining **Games, Players, Strategies, and Payoffs**.
- Rationality vs. **Behavioral Biases**: The human element in strategic interactions.
- Distinguishing **Cooperative vs. Non-Cooperative Games**, **Zero-Sum vs. Non-Zero-Sum**.
- **Case Study**: The Cuban Missile Crisis – A classic example of strategic interaction and brinkmanship.

Module 2: Static Games with Complete Information

- **Normal Form Representation** of games.
- **Dominant and Dominated Strategies**: Identifying clear advantages.
- **Nash Equilibrium**: Understanding stable outcomes.
- Multiple Equilibria and the **Coordination Problem**.
- **Case Study**: Pricing Strategies in an Oligopoly (e.g., airline industry price wars).

Module 3: Dynamic Games with Complete Information

- **Extensive Form Representation**: Visualizing sequential decisions.
- **Backward Induction**: Solving sequential games.
- **Subgame Perfect Nash Equilibrium (SPNE)**: Ensuring credible threats and promises.
- First-Mover Advantage vs. Second-Mover Advantage.
- **Case Study**: Market Entry and Deterrence Strategies (e.g., a new tech startup entering a dominant market).

Module 4: Repeated Games & Long-Term Interactions

- The impact of **Reputation and Trust** in ongoing relationships.
- Strategies for **Sustaining Cooperation** (e.g., Tit-for-Tat).
- **Discount Factor** and the value of future payoffs.
- The **Folk Theorem**: Conditions for cooperation in infinitely repeated games.
- **Case Study**: Cartel Stability and Collusion in Industries (e.g., OPEC).

Module 5: Games with Incomplete Information (Bayesian Games)

- Introduction to **Uncertainty and Asymmetric Information**.
- **Types and Beliefs**: Modeling private information.
- **Bayesian Nash Equilibrium**: Solving games with incomplete information.
- **Signaling and Screening**: Communicating and eliciting private information.
- **Case Study**: Product Launch Decisions with Unknown Market Demand.

Module 6: Auction Theory & Strategic Bidding

- Types of Auctions: **English, Dutch, First-Price Sealed-Bid, Second-Price Sealed-Bid (Vickrey)**.
- **Dominant Strategies** in specific auction formats.
- **Revenue Equivalence Theorem** and its implications.

- **Common Value vs. Private Value Auctions** and the **Winner's Curse**.
- **Case Study**: Strategic Bidding in Government Spectrum Auctions or Corporate Acquisitions.

Module 7: Bargaining & Negotiation Strategies

- **Nash Bargaining Solution**: Fair division of gains from cooperation.
- **Ultimatum Game** and **Dictator Game**: Insights into fairness and power.
- The role of **Threat Points** and **Reservation Values**.
- Bargaining with **Incomplete Information**: The art of negotiation.
- **Case Study**: Labor Union Negotiations or International Trade Agreements.

Module 8: Cooperative Game Theory & Coalition Formation

- The concept of a **Coalition** and **Characteristic Functions**.
- The **Core**: Stable outcomes in cooperative games.
- The **Shapley Value**: Fair allocation of joint payoffs.
- Strategic Alliances and **Joint Ventures**.
- **Case Study**: Forming Strategic Alliances in the Tech Industry or Cross-Border Mergers.

Module 9: Evolutionary Game Theory & Dynamics

- **Evolutionarily Stable Strategies (ESS)**: Persistence of behaviors.
- Population Dynamics and **Replicator Dynamics**.
- Application in **Organizational Culture** and norms.
- Learning and Adaptation in Games.
- **Case Study**: Evolution of Business Practices and Competitive Norms.

Module 10: Behavioral Game Theory & Cognitive Biases

- Departures from **Perfect Rationality**: Real-world decision-making.
- **Prospect Theory** and **Framing Effects**.
- **Overconfidence, Anchoring, and Availability Bias**.
- Designing Incentives and nudges based on behavioral insights.
- **Case Study**: Consumer Behavior and Marketing Campaign Design.

Module 11: Game Theory in Pricing & Competition

- Advanced **Pricing Models**: Price matching, product differentiation.
- **Capacity Games** and **Entry Deterrence**.
- **Advertising and R&D Competition**.
- Strategic Interactions in **Platform Economies**.
- **Case Study**: The Smartphone Market – Apple vs. Samsung competitive strategies.

Module 12: Game Theory in Investment & Finance

- Strategic Asset Allocation.
- **Mergers & Acquisitions** as a game.
- **Hostile Takeovers** and defense strategies.
- Option Pricing with Game-Theoretic elements.
- **Case Study**: Competing Bids in a Corporate Takeover Battle.

Module 13: Game Theory in Supply Chain & Operations

- **Supplier-Buyer Negotiations**.
- **Contract Design** for optimal incentives.

- Risk Sharing in Supply Chains.
- **Coordination Games** in logistics.
- **Case Study**: Optimizing Supply Chain Relationships and Risk Mitigation (e.g., automotive industry).

Module 14: Game Theory in Digital & AI Strategy

- **Algorithmic Game Theory** and its implications.
- Game Theory in **AI Design** (e.g., multi-agent systems).
- **Cybersecurity** as a strategic game.
- **Data Marketplaces** and information exchange.
- **Case Study**: Designing AI Agents for Competitive Online Environments.

Module 15: Implementing Game Theory for Executive Advantage

- Translating theoretical models into **Actionable Business Strategies**.
- Building **Game Theory Capabilities** within the organization.
- Tools and Software for Game Theoretic Analysis.
- **Ethical Considerations** in strategic interactions.
- **Case Study**: Developing a Comprehensive Strategic Plan using Game Theory for a Multinational Corporation.

Training Methodology

This course employs a highly interactive and practical training methodology, designed to facilitate deep learning and immediate applicability.

- **Interactive Lectures & Discussions**: Engaging presentations of theoretical frameworks and best practices.
- **Real-World Case Studies**: In-depth analysis of successful and failed M&A transactions and strategic decisions to extract actionable insights.
- **Group Exercises & Workshops**: Hands-on application of strategic tools and valuation techniques in collaborative settings.
- **Simulations & Role-Playing**: Experiential learning through mock negotiations and integration scenarios.
- **Expert Facilitation**: Guidance from industry veterans and academic experts in corporate strategy and M&A.
- **Q&A and Peer Learning**: Opportunities for participants to share experiences and learn from each other.
- **Practical Frameworks & Checklists**: Provision of ready-to-use tools for immediate implementation.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com