



## Business Strategy with Game Theory

### Objectives

A problem of fundamental importance for managers is how to make optimal decisions in strategic situations. Participants will learn some of the most important tools of game theory, as well as some important managerial economics applications of those tools to the analysis of real-world strategic situations.

Game theory suggests that we look for a so-called Nash equilibrium of the game. It is a powerful tool that is extremely useful in the analysis of strategic interactions.

### Course Contents

The first class of strategic situations that we analyze consists of those situations in which the parties involved *make decisions only once and simultaneously*. The analysis of this part allows us to shed light on the important managerial problem of strategic pricing.

We then consider the analysis of strategic situations in which *parties interact repeatedly over time*. The main insights of this section illustrate the value of building and maintaining a good reputation. We apply these insights to the analysis of price fixing by firms with market power.

Finally, we will study strategic situations that are sequential in nature, in which some parties *make their decisions before other parties*. The analysis sheds light on what type of behavior is 'credible' in these strategic situations. As an application, we analyze how firms with market power can deter potential entrants from entering an industry.



## Course Outline:

1. Static Games:
  - Strategic Representation of a Game.
  - Dominant and Dominated Strategies.
  - Nash Equilibrium.
  - Application: Strategic Pricing.
2. Repeated Games:
  - The Basic Idea.
  - Application: Collusion.
3. Sequential Games:
  - Extensive Representation.
  - Backward Induction.
  - Application: Entry Deterrence.

## Designed For

This program is structured for managers making optimal decisions in strategic situations.

## Training Delivery

This instructor led course will require a lot of hands-on exercises and interactive discussions in a team-work oriented environment, group. The training is presented verbally in Indonesian with the course materials written in English.

## Duration

This duration is 2 days.