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| Managerial Economics |

Equilibrium and Efficiency

MobLab Game: Competitive Market

Key Teaching Points:

* Experience the “invisible hand” of the market; individual profit maximization leads to competitive-market equilibrium.
* Show that the competitive-market equilibrium maximizes total surplus.

Long Run Equilibrium

MobLab Game: Production, Entry & Exit

Key Teaching Points:

* Short-run profit maximization involves thinking at the margin.
* Show how firm entry and exit decisions are affected by the decisions in the previous round, and if the market entrants earned a profit or not.
* In the long-run equilibrium of a competitive market with identical firms, all firms earn zero economic profits.

Monopoly

MobLab Game: Monopoly

Key Teaching Points:

* Profit maximization involves thinking on the margin.
* In the absence of price discrimination, the uniform price case will lead to a sub-optimal price for both markets. Third degree price discrimination can lead to improved welfare across both markets.

MobLab Game: Double Marginalization

Key Teaching Points:

* Review concepts of marginal revenue and monopoly pricing.
* Show how, in the absence of communication or contract to help coordinate decisions, the successive exercise of market power leads to higher market prices and a loss in economic efficiency.
* Explore vertical integration and franchising as solutions to the double marginalization problem.

Oligopoly

MobLab Game: Cournot

Key Teaching Points:

* Understand how increasing the number of competitors in the market, from one to many, shifts the market from the monopoly outcome towards perfectly competitive outcome– meaning higher aggregate quantities, lower prices, and greater total welfare, concentrated among consumers.
* Experience the profit maximization in a situation with strategic interdependence.

MobLab Game: Bertrand

Key Teaching Points:

* When selling an undifferentiated product without capacity constraints, firms have strong short-run incentives to engage in vigorous price competition.
* Marginal-cost pricing may arise in markets with as few as two firms.
* Capacity constraints and price matching are market features that soften price competition.

MobLab Game: Stackelberg

Key Teaching Points:

* Gain an understanding of the underlying logic of the Stackelberg model: how market price is determined by the aggregation of sequentially chosen output.
* Experience firsthand the paradox of commitment.
* Contrast the strategic and outcome differences of the Cournot and Stackelberg environments.

Bargaining and Fairness

MobLab Game: Ultimatum Game

Key Teaching Points:

* Demonstrates how social norms such as fairness and altruism may factor in the decision-making process for economic actors.

MobLab Game: Bargaining: Alternating Offer

Key Teaching Points:

* Players learn about tradeoffs and fairness in negotiations.
* Promotes learning about backward induction and subgame perfect equilibria in sequential games.

Trust and Reciprocity

MobLab Game: Trust Game

Key Teaching Points:

* Explore and test backward induction and subgame perfect Nash Equilibrium.
* Preferences for trustworthiness (positive reciprocity) or fairness may lead a Responder to return positive amounts. Anticipating this, and perhaps also motivated by altruism or fairness, Investors may choose to invest.

Team Incentives

MobLab Game: Public Good: Punishment and Reward

Key Teaching Points:

* When group output depends on individual efforts, but benefits are shared in common, individuals have an incentive to free ride.
* Individuals in a group can incur a cost to punish or reward other group members.
* Show how incurring these costs results in preserving norms for cooperation.

Asymmetric Information

MobLab Game: Market for Lemons

Key Teaching Points:

* Experience a market with asymmetric information.
* Asymmetric information may lead to adverse selection and market failure.

Risk and Uncertainty

MobLab Game: Bomb Risk Game

Key Teaching Points:

* Individuals differ in their risk tolerance. Risk preferences displayed in one environment can carry over to other environments.
* Individuals who open fewer than 50 boxes can be said to be risk averse. Those who open more can be said to be risk seeking.

*Additional Risk Preference Surveys: Risk Preferences: Holt Laury and Risk Preferences: Binswanger*

MobLab Survey: Allais Paradox

Key Teaching Points:

* People overweight small probability events and this leads to violation of predictions from Expected Utility Theory.

MobLab Survey: Ambiguity Aversion

Key Teaching Points:

* Show that individuals exhibit a preference for known rather than unknown risks.

Principal-Agent

MobLab Game: Principal-Agent

Key Teaching Points:

* Students learn how the optimal contract offered to the worker depends on the information environment (full information v. asymmetric information).
* Students learn how the magnitude of different contract features (flat-fee and bonus) depend on worker outside option and cost of effort.

Game Theory

MobLab Game: Prisoner’s Dilemma (Matrix) or Prisoner’s Dilemma (Push and Pull)

Key Teaching Points:

* Shows the conflicting incentives of cooperation and self-interest.
* Gain familiarity with reading payoff matrices and the key concept of a dominant strategy.
* Identification of Nash equilibrium.
* Demonstrates that repeat play can lead to more cooperative outcomes

MobLab Game: Minimum Effort

Key Teaching Points:

* Demonstrates that players may fail to coordinate on preferred equilibrium if choosing the associated action exposes players to strategic risk.
* Repeat interaction and communication are likely reduces miscoordination.

MobLab Game: Matrix: Instructor Specified

Key Teaching Points:

* Allows instructors the flexibility to specify actions and payoffs in a normal form game. Can be used in support a variety of learning objectives.