

Abstract

This research project aims to apply mathematics and game theory to Industrial Organization. In this research I will follow two different approaches: The first one is related to the introduction of bounded rationality in industrial organization (IO) models. The industrial organization literature has hitherto focused on the assumption that agents are profit/utility maximizers. A new strand in the industrial organization literature, behavioral industrial organization, addresses ways to depart from the assumption of full rationality and utility maximizing agents.

The second approach proposes new framework to investigate the effects of rule of thumb approach on both consumer's behavior and firm's behavior. In this approach we construct three rational models that generalize the Ellison's model for rational choice: (i) Rational Model (I) with one new product, this model is generalization of rule of thumb approach (ii) Rational Model (II) with more than one new product within one firm and (iii) Rational Model (III) with more than one new product within competitive firms.