

THE APPLICATION OF ECONOMIC GAME THEORY -- TAKING THE ACTUAL PHENOMENON AS AN EXAMPLE

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ABSTRACT

The game theory as a branch of mathematics provides us with a general method for studying human rational behavior. Using these methods, we can more clearly and completely analyze the phenomena observed by the interacting decision-making subjects. This article first briefly discusses the development of game theory. On the basis of this, explaining the contradiction between individual rationality and collective rationality with the prisoners' predicament game theory and expand the phenomenon. The idea of free-riding between unequal participants' game is explained through the thinking of pig-pig game. Through imperfect information market entry game thinking analysis of incomplete information on the impact of transaction efficiency. Analysis of infinite repetitive games with the cool strategic thinking of repeated games can make prisoners out of the woods. Use game theory to explain phenomena in real life. From everyday life games, playing chess to cooperation innovation between companies. While the discipline itself is developing and improving, it also requires game theory to move toward more explanatory power.

Keywords: Economic game theory ; dialectical thinking ; Nash equilibrium; Prisoner's dilemma ; incomplete information.