IRRATIONAL STRATEGY IN PARTIAL AWARENESS OF PLAYERS ON THE EXAMPLE OF INDIVIDUAL-OPTIMAL EQUILIBRIUM

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The most attractive concepts of optimality in the conditions of full knowledge of players are the principles of optimality by Pareto and Nash. Pareto's concept of optimality is based on the idea of cooperative behavior of players when they collectively choose their strategies and take into account the benefits of a win. Therefore, there are no situations that will be better for all players than Pareto-optimal at the same time. The solution of the problems of game theory only by classical methods is incomplete, since, along with the classical methods of non-cooperative game theory, such as the equilibrium for Nash and Pareto, there are other methods. Some of them are irrational, for example, the principles of individual optimality. The principle of individual optimality, gives each player the opportunity to choose their strategies individually (non-cooperative), but to take into account the interests of all other players (a compromise for resolving the conflict). This principle is grounded in so-called one-goal games, where all players have a goal-one, but it is characterized by each player's own win-win function. Ideally, this goal is to select players their strategies so that the best situation for all players is formed. Since such situations may not exist, players can agree on a compromise for a common purpose. The paper considers methods of non-operational theory of the game on the example of the neoclassical model of equilibrium of goods in a limited market between a fixed number of economic agents. The methods of "cursing the Cournot" and the principle of individual optimality are described. The difference between concepts is demonstrated: solved the problem with the principle of individual optimality and compares the results with the solution of this problem in two other cases. The principle of individual optimality allows each player to choose their strategy individually (noncooperative) but taken into account in the interests of all other players (for a compromise solution to the conflict). This principle is grounded in so-called one-goal games, where all players have a goal-one, but it is characterized by each player's own win-win function. For example, when building a house there is an organization contractor and the organization of subcontracting. The contractor has the purpose, having spent a certain amount of money, to get the best result, and the subcontractor has the purpose of performing the task so that the contractor has a sufficient minimum amount of money spent. Although in both of them, the only purpose – the construction of buildings – is a win-win function for everyone, which is characterized by a compromise between them. Ideally, this goal is to select players their strategies so that the best situation for all players is formed. Since such situations may not exist, players can agree on a compromise for a common purpose. In terms of rationality, a compromise is not a direct maximization of their needs, therefore it is necessary to check whether such irrational behavior can have its advantages.

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