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Solution of Insurance Pricing Model Giving Optimum Premium Level for Both Insured and Insurer by Game Theory

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Abstract : A game consists of strategies that each actor has in his/her own choice strategies, and a game regulates the certain rules in the strategies that the actors choose, express how they evaluate their knowledge and the utility of output results. Game theory examines the human behaviors (preferences) of strategic situations in which each actor of a game regards the action that others will make in spite of his own moves. There is a balance between each player playing a game with the final number of players and the player with a certain probability of choosing the players, and this is called Nash equilibrium. The insurance is a two-person game where the insurer and insured are the actors. Both sides have the right to act in favor of utility functions. The insured has to pay a premium to buy the insurance cover. The insured will want to pay a low premium while the insurer is willing to get a high premium. In this study, the state of equilibrium for insurance pricing was examined in terms of the insurer and insured with game theory.

Keywords : game theory, insurance pricing, Nash equilibrium, utility function
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