

Evolutionary Game Analysis of the Supervision Behavior for Public-Private Partnership Projects with Public Participation

Access to new resource related to public-private partnership projects added to PMWL



Resource provided by [Diana Serikbay](#)

26 April 2022 – Almaty, Kazakhstan – Access to a new resource has been added to the PM World Library (PMWL) related to Public-Private Partnership projects (PPPs). The new resource titled “**Evolutionary Game Analysis of the Supervision Behavior for Public-Private Partnership Projects with Public Participation**” is a paper by Congdong Li, Xiaoli Li and Yu Wang published in the journal *Mathematical Problems in Engineering* in 2016.

In this research paper, the authors analyze the influence of the public sector on the behavior of players in PPPs. The authors consider the mutual evolutionary pattern of the private sector and the government supervision department, the behavior and influence of players based on the evolutionary game theory.

The private player has two options to choose from, provide high quality goods and provide low quality goods. By providing low quality products, private sector profits are greatly reduced. If the quality of the product provided is high, private sector profits increase. The state, in turn, has the choice to control or not to control the private sector. If the quality of the products is low during the inspection by the supervisory authority, then the public sector has the right to punish the private sector (reduction of profits, fines). If the quality of the goods is satisfactory, then the state allocates subsidies.

The results of the analysis showed that the state chooses supervision in the event that the costs exceed the benefits. This action by the state oversight department encourages the private sector to produce high quality products while attracting public interest. The authors recommend lowering the cost of private sector participation, thereby increasing the level of participation and its impact through technology.

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For PMWL Post

Li, C., Li, X., and Wang, Y. (2016). **Evolutionary Game Analysis of the Supervision Behavior for Public-Private Partnership Projects with Public Participation**, *Mathematical Problems in Engineering*, October, Article ID 1760837, 8 pages. Available online at (<https://www.hindawi.com/journals/mpe/2016/1760837/>) ([Serikbay](#))

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