

ZOO ALLIANCES: A SPECIAL CASE OF COOPERATION IN RESTRICTED OLIGOPOLISTIC MARKET STRUCTURES

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1 INTRODUCTION

The study explores the emergence of cooperation in restricted oligopolistic market structures, where a small number of firms dominate the supply side while demand remains more widely dispersed. In such markets, traditional price competition often gives way to non-price competitive strategies, fostering cooperative or even collusive behaviours. To analyse the incentives and mechanisms that drive firms toward cooperative strategies, this research integrates three key theoretical frameworks: Club Theory [1], Public Goods Theory [2], and Game-Theoretic Approaches to Cooperation [3].

This study applies these models to the case of zoo alliances, where institutions cooperate in species conservation, education, research, advocacy, and resource-sharing within an oligopolistic environment, characterized by high entry barriers, technological constraints, and regulatory influences [4].

2 MATERIAL AND METHODS

This analysis adopts a comparative theoretical approach, integrating insights from economic theory with empirical observations of restricted oligopolies. Club Theory explains how exclusive membership-based organizations, such as zoo networks, emerge to facilitate efficient resource-sharing. Public Goods Theory highlights the collective benefits of species conservation, research, and knowledge dissemination, emphasizing their non-rivalrous and non-excludable nature. Finally, Game Theory, particularly the Repeated Prisoner's Dilemma, demonstrates how strategic reciprocity fosters long-term cooperation among institutions.

3 RESULTS

- Club Theory Findings: Oligopolistic institutions establish exclusive networks to facilitate knowledge-sharing, research collaboration, and the exchange of best practices. While this enhances resource efficiency, it may also lead to exclusionary behaviours.
- Public Goods Theory Insights: Zoo alliances generate public benefits by contributing to biodiversity conservation, research, and education. However, the issue of free riders – institutions that gain advantages without contributing – remains a persistent challenge.

- Game-Theoretic Implications: Cooperation within restricted oligopolies follows repeated game strategies, where enforcement mechanisms, such as exclusion from partnerships, deter non-compliance. The ‘Tit-for-Tat’ strategy is particularly effective in sustaining long-term cooperative equilibria.

These findings emphasize that cooperation is often essential for overcoming industry constraints in oligopolistic environments. However, maintaining collaboration requires robust governance structures and enforcement mechanisms to mitigate opportunistic behavior and ensure sustained benefits.

4 CONCLUSIONS

The study concludes that a combination of club-based membership, public good provision, and strategic game-theoretic interactions drives cooperation in the restricted oligopolistic market of the zoo industry. Zoo alliances serve as a prime example of how institutions navigate these dynamics, carefully balancing collaboration and competition to achieve shared goals.

Future research should focus on quantifying the economic impact of cooperative strategies within zoo alliances, particularly in the context of species conservation. Additionally, developing policy recommendations to strengthen sustainability and governance in this sector will be crucial for ensuring long-term success.

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