

# Interactional Analysis for Two-Party Risk Assessment in Public Private Partnerships (PPP),

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## Abstract

Public Private Partnerships (PPP) have been increasingly used over the past years. However, problems have arisen with the increased use of this procurement strategy. These problems usually occur as a result of various risks that manifest over the long duration of the project. These include risks at the macro, market and project level specific to PPP projects. Examples include concessionaire default in loans for the Sydney Airport Rail Link project, bank refusal to loan the concessionaire for the Channel Tunnel Rail Link project in the United Kingdom and high interest loans on private debt for the Taiwan High Speed Rail project. Identifying risks in previous projects would lead to a risk registry that would help in understanding the sequence of events as well as the parties involved. Case studies have suggested that the outcome of the identified risks can be linked to the interaction of the parties in a PPP project. Parties to the risk in a PPP project include owner or government, developer, financier, sponsor, supplier, architect, subcontractors, contractors, non-governmental organizations (NGOs), media, authorities and regulatory, politicians, workers, end-users and experts. In this paper, game theory is used to analyse the interactions between parties to understand dynamic outcome of the associated risks in PPP project because of the actions taken by the parties to the risk. The scenarios of risks are defined based on actions and their transaction cost as well as outcomes and th

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