CRITICAL UNCERTAINTY FACTORS FOR EFFICIENT RISK ALLOCATION IN PRIVATELY FINANCED PUBLIC INFRASTRUCTURE PROJECTS IN AUSTRALIA

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Abstract
Risk allocation in privately financed public infrastructure projects, commonly referred to as public-private partnership (PPP) projects, is a challenging job due to the nature of incomplete contracting. Choosing a risk allocation strategy could be viewed as the process of deciding the proportion of risk management attributable to the public and private partners based on a series of characteristics of the risk management service transaction in question. These characteristics can be related to the various uncertainty factors. In this study, uncertainty factors have been grouped into Institutional, Social and industrial, Economic, and Project-specific categories and examined in order to achieve efficient risk allocation and minimize risk management-related costs in a long-term view. Critical uncertainty factors for the allocation of three major risks have been identified through an industry-wide survey in Australia. These identified critical uncertainty factors are expected to help decision-makers from both public and private sectors choose efficient allocation strategies for major risks. Future research directions are also set out.

Keywords
Uncertainty, Risk allocation, Public-private partnership, Australia.

INTRODUCTION

For those countries that are experiencing rapid growth, it has been a necessary and, at the same time, challenging task to make substantial investment in infrastructure (The World Bank, 2008). This is because the traditional methods of government procurement are inefficient and the provision of projects is limited by the availability of government funds. In order to tackle these challenges and enable countries to meet growth demands, a range of public-private partnership (PPP) arrangements have been established. These PPP arrangements have rapidly become the preferred way to provide public services in many countries, including Australia (Jin and Doloi, 2008). In PPP projects, risk transfer is the greatest value-for-money driver. That is, cheaper and higher-quality infrastructure services may be provided than in conventional ways if appropriate risks are transferred to the private sector, which is supposed to be more capable of managing those risks (Hayford, 2006). However, the incomplete