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# The influence of governance equilibrium on ERP project success☆

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**Abstract**

As the ERP adopter and ERP consultancy combine their efforts and resources to achieve mutually desirable goals, the problem of governance, which has been mainly identified as an intrafirm problem, is recognized to be an interfirm problem. To investigate the relationship between various governance mechanisms and their capacity to relieve project hazards, we propose a covariance model of ERP governance. The constructed model analyzes the complementary contributions of different governance mechanisms on ERP project success. Four governance mechanisms are studied, including explicit contracts, implicit contracts, reputation, and trust. This study holds that the virtue of one mechanism will grow into the gap of another, forming an equilibrium of governance structure. Then, the governance equilibrium plays a mediating role between ERP project hazards and ERP project success. Empirical analysis based on 122 ERP implementation projects shows a significantly positive relationship between governance equilibrium and ERP project success. Further, in support of transaction cost theory (TCT), the results indicate that governance equilibrium tends to be aligned with exchange hazards, specifically those associated with specialized investments and uncertainty. The empirical evidence suggests that governance equilibrium, when treated as a multidimensional construct, can provide a holistic representation of complex interfirm governance and allow researchers to match broad predictors with broad outcomes, leading to greater explanatory power of governance mechanisms on ERP project success. Implications, limitations, and future research directions of the study are discussed.


*Keywords:* ERP, Implementation; Transaction cost theory; Governance

## 1. Introduction

Since a full adoption of ERP system spans all functional silos, the hazards of implementation uncertainty are usually salient. Many firms thus bring outside help to accomplish the ERP implementation effort. Unfortunately, implementation difficulties still make approximately 90% of ERP projects late or over budget, encounter many technical problems, or fail to realize expected benefits. In order to relieve the ERP

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project hazards, business managers should attend to the governance issues in an ERP project so as to increase the likelihood of project success.

Governance is a recurrent theme in economic and social systems. Traditionally, the literature on governance has paid much attention to identifying the most efficient mode of isolated governance within a particular context. Studies applying the reductionist approach have focused mainly on how a single governance mechanism affects transaction efficiency (e.g., Ref. [9]) and/or how pairs of governance mechanisms (formal vs. social) explain performance in a bivariate view (e.g., Refs. [10,43]). Such reductionism treats the anatomy of interfirm governance as being decomposable into components that can be examined independently, and the knowledge gained from each component can then be aggregated to understand the overall interfirm cooperation. However, a complicated ERP project is embedded in a complex matrix of economic, social, and cultural dimensions. Any reductionist or bivariate analysis therefore is likely to result in internal inconsistency among multiple pairwise contingencies [54], and the managerial implications of each contingency are unlikely to be the same and often in conflict [13]. For example, an implicit agreement by itself may not lead to more cost-efficient cooperation. The same may also hold true for the reputation mechanism. However, if an interfirm relationship relies on both mechanisms, the mechanisms may function as complements, thus reinforcing each other [27].

Therefore, rather than viewing interfirm governance through an overly simplistic lens, a systems approach is adopted here to explore governance adaptability and completeness in ERP implementation projects. This approach provides more insights into interfirm governance than studies based on individual mechanisms because of the potentially greater effectiveness of collective mechanisms [16]. This paper aims at exploring the relationships among various governance mechanisms and examining whether more comprehensive governance can mitigate ERP project hazards more effectively so as to achieve higher project success. Fig. 1 depicts the conceptual model of this study. The concept "governance equilibrium" is represented as a jigsaw puzzle—each piece represents a governance mechanism with its own competence (protrusion) and deficiency (indentation). The deficiency of one governance mechanism is covered by another, and in the same way, the virtue of one mechanism will "grow into the gap" of another [16].

In what follows, we begin by reviewing the literature on ERP project success and interfirm governance. Each individual governance mechanism is examined in terms of its transaction cost and competence in dealing with exchange hazards. From the literatures, a comprehensive approach is adopted to examine the relationships among different governance mechanisms and their combined effects on ERP project outcomes. Then the relationship between the degree of project hazards and the governance mechanisms demanded is investigated. After describing the methods and data collected, the results of data analysis are presented. Finally, the findings, limitations and suggestions for future research are discussed in the conclusion.

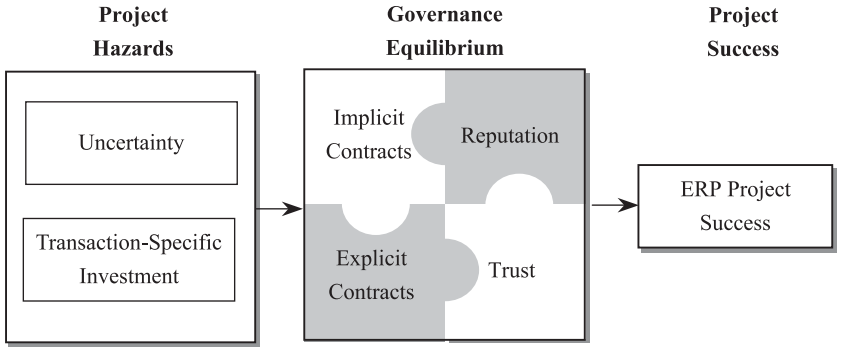


Fig. 1. Conceptual model.