Robert John Irvine

Doctor of Philosophy (PhD)

June 2013

Success Factors for Organisational Information Systems Development Projects: A Scottish Suppliers' Perspective

Abstract

Organisational information systems development (OISD) projects have long been associated with failure. Not surprisingly, the cost of these failures is enormous. Yet, despite numerous studies, understanding of real-world projects is limited. In particular, little is known about the way in which various factors affect the success of OISD projects. Prior research has focussed on OISD projects from an in-house or client perspective, and the views of the supplier have largely been ignored. By investigating OISD project success factors from the supplier perspective, this doctoral study helps address this gap.

Based on an empirical investigation drawn from data collected from Scottish IS/IT solution suppliers, this research identifies and analyses 20 success factors for supplier-based OISD projects, and a range of more detailed, inter-related sub-factors related to each of the twenty. The work confirms the importance of many factors identified in the extant literature. A number of additional factors not previously identified are also exposed. Important differences between supplier and client perspectives are revealed. The findings also develop a variety of factors that have merited scant treatment in the OISD project success factor literature.

The means by which OISD project success factors propagate their influences to affect project success was also investigated. This is revealed to be a complex phenomenon comprising billions of causal chains interacting with a few million causal loops. The propagation process is performed by a sizeable network of factors, the topology of which seems to reflect the complexities of real-world OISD projects. Hence, the network is used to propose a new theory for success factors that contributes new insight into the behaviour of these projects.

The research also reveals that supplier-based OISD projects are oriented more towards project success than project management success and that OISD project success criteria are far more than simply measures of success. Indeed, the overall conclusion of this thesis is that the concept of OISD project success factors is far more complicated than has been previously articulated.