

IMPORTANCE PERFORMANCE ANALYSIS OF DESIGN OUTSOURCING RELATIONSHIP IN AEROSPACE AND DEFENCE IN INDIA

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Abstract

The objectives of this paper are to investigate the factors that contribute to the success of design outsourcing of complex engineered systems in Aerospace and Defence (A&D) sector and to study the gap between the importance and performance of the identified factors. The study is done in this context on the outsourcing relationship between the clients and vendors. Based on the review of literature on complex product development and design outsourcing relationship, the potential factors that determine the engineering/embedded systems outsourcing outcome have been identified. The factors are further validated and refined through a qualitative analysis with the experts in the field with more than 20 years of experience. A survey instrument is developed for data collection to validate the conceptual model that is proposed and to identify the gaps between the expectations and the current practices. The data analysis is segmented for each of the major domains of design outsourcing. From the clients view of the outsourced projects, the factors that need to be focused on and improved are Systems engineering, Information sharing and Project governance whereas the factors such as quality focus, technical capability, communication and mutual trust are already being performed well. From the vendors view, the factors such as Risk sharing and communication needs to be focused for improvement.

Keywords: Design outsourcing; Complex engineered systems; Outsourcing relationship; Importance performance analysis