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Discussion Paper WI-230

**IT Sourcing Portfolio Management for  
IT Services Providers -  
An Approach for Using Modern Portfolio  
Theory to Allocate Software Development  
Projects to Available Sites**

by

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August 2010

in: The DATA BASE for Advances in Information Systems 43 (2012) 1, p. 24-45



*IT Sourcing Portfolio Management for IT Services Providers - An Approach for using  
Modern Portfolio Theory to allocate Software Development Projects to available Sites*

**Abstract**

Global sourcing of IT work has become a widely accepted practice among transnational corporations. Most of the big Information Technology Services Providers (ITSPs) maintain a portfolio of globally distributed delivery centers and have to decide on the assignment of specific software development projects to their available sites. ITSPs have to consider *expected costs, risks, and interdependencies* between projects and sites when making value-based sourcing decisions. However, value-based decision approaches that are both well founded in theory and operational in practice have until now been missing in the Information Systems literature. As decision making with respect to the construction of portfolios of risky financial assets exhibits similar characteristics compared to value-based sourcing decision making, we base our approach on the Modern Portfolio Theory. This paper makes two contributions in this context: (1) It provides a conceptual foundation for the application of Modern Portfolio Theory within the scope of global sourcing of software development projects by ITSPs. Therefore, we adapt the Modern Portfolio Theory to ensure an optimal and full allocation of given software development projects to available sites considering site/project combinations as risky assets, discrete portfolio shares, transaction costs and project as well as site dependencies. (2) It is the first to actually operationalize and apply Modern Portfolio Theory using a real world business case. Thereby, we illustrate that considering the mentioned aspects may lead to considerably different project allocations to the available delivery centers and to substantially lower costs of the sourcing portfolio.