

Summary Post

The discussion focused on the Lehtinen et al. (2014) paper which studied the causes of project failures and more importantly, the causal relationships amongst these individual factors. In my initial forum posting, I highlighted the importance of adequate testing to ensure project success, strong management and leadership capabilities, and finally, clear and sufficient requirements gathering. To emphasise my points, I selected two case studies. One focused on the failures of the Sainsbury's updated supply chain and warehouse stock management system. The key component of the system, the barcode scanning capability, was not tested sufficiently, resulting in additional losses sustained not just via ineffective stock management, but also via additional human resource cost. The second example was the failure of the NHS National Program for IT project, where reckless and insufficient planning, and poor and misguided requirements gathering resulted in failure and costs of over £10 billion.

My colleague in their feedback highlights the importance of iterative development and Agile methodologies in improving outcomes. Indeed, Agile in tandem with the DevOps methodology widely used nowadays ensure increased success, when used effectively. The two approaches have been shown to increase collaboration, scalability, faster delivery and better-quality outputs (El Aouni et al., 2024). Additionally, they also increase continuous innovation, which is critical for a business in the long-term (Alt et al., 2021).

Some colleagues also mention complexity as a key failure factor. This is a significant factor as discussed by Whitney & Daniels (2013), and is something to account for

when introducing new tools and methodologies that are supposed to improve process. In many occasions, organisations lack the necessary maturity and new ways of working may introduce more complexity, thus higher risk of failure.

References:

Alt, R., Auth, G. & Kögler, C. (2021) *Continuous innovation with DevOps: IT management in the age of digitalization and software-defined business*. Cham: Springer International Publishing.

El Aouni, F., Moumane, K., Idri, A., Najib, M. & Jan, S.U. (2024) A systematic literature review on Agile, Cloud, and DevOps integration: Challenges, benefits. *Information and Software Technology*, 107569.

Lehtinen, T.O., Mäntylä, M.V., Vanhanen, J., Itkonen, J. & Lassenius, C. (2014) Perceived causes of software project failures—An analysis of their relationships. *Information and Software Technology*, 56(6): 623-643.

Whitney, K.M. & Daniels, C.B. (2013) The root cause of failure in complex IT projects: Complexity itself. *Procedia Computer Science*, 20: 325-330.