

**Innovation diffusion in global contexts: determinants of post-adoption digital transformation of European companies**

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277 words

1 December 2006

European Journal of Information Systems

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Volume 15; Issue 6; ISSN: 0960085X

English

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Grounded in the diffusion of innovation theory and the technology-organization-environment framework, we develop an integrative model to study the determinants of post-adoption stages of innovation diffusion, using enterprise digital transformation as an example of technology-enabled innovations. We specify four innovation characteristics (relative advantage, compatibility, costs and security concern) and four contextual factors (technology competence, organization size, competitive pressure and partner readiness) as determinants of post-adoption usage, and postulate usage as an intermediate link to impact on firm performance. We test the proposed model using a dataset of 1415 companies from six European countries. We find that the innovation needs to be used extensively in value-chain activities before its impact can be realized. Among the innovation characteristics, we find that compatibility is the strongest driver, and security concern outweighs cost as a usage inhibitor.

Among the contextual variables, technology competence, partner readiness and competitive pressure significantly drive e-business usage, and the structural inertia of large firms tends to slow down its penetration. Collectively, these results indicate that innovation diffusion can be better understood by including both innovation characteristics and contextual factors, whereas earlier literature has traditionally treated the two separately. Finally, we evaluate an international dimension among European countries and tease out important boundary conditions that would not have been evident in a single-country dataset. Our results show that careful attention must be paid to the economic and regulatory factors that may result in uneven innovation diffusion even among developed European countries.

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Document EJI0000020070116e2c10007