

## Technology Management in a Knowledge Based Economy

Chairs: G.John van der Pijl, Pieter Ribbers, and Martin Smits

This minitrack focuses on the impact of modern IT on regions, industrial districts, or clusters. The idea is that intra- and inter-cluster interrelatedness and competition will foster economic development.

In the first paper Anne Quaadgras builds and analyzes the emerging radio frequency ID (RFID) ecosystem based on announcements of alliances among firms, and analyzes propositions with respect to the behavior of large, multiline technology firms around this innovative, technology based platform. The RFID network is used to empirically show that absorptive capacity, and exploration vs. exploitation theories may start to explain the behavior of large firms. Quaadgras shows that a propensity to form alliances in general makes it more likely that large established firms will join the RFID ecosystem, and that more exploratory firms join earlier. Greater availability of slack resources also leads to the formation of more alliances (greater degree centrality) in the network. The ecosystem perspective and these results may affect alliance decisions have implications for alliance decisions of firms entering into high cost technological innovations.

In the second paper Chorng-Shyong Ong, Jung-Yu Lai, Yu-Min Wang, Shang-Wei Wang analyze the power issues influencing employees' acceptance of a Knowledge Management System (KMS) in Taiwan semiconductor manufacturing companies. They argue that organizations are required to implement KMSs because of the shift from a product-based to a knowledge-based economy and the resulting increased demand for knowledge workers. These

systems require huge investments, necessitating a good understanding of the factors that influence the adoption of KMSs by employees. The paper examines the applicability of the Technology Acceptance Model (TAM) to explain the behavior of employees with regards to KMS. The authors propose to add a new construct 'perceive power security'.

The third paper in this minitrack was originally submitted to the IS in Global Business Minitrack (chaired by Christopher Holland and Pieter Ribbers). Dinesh Mirchandari and Albert Lederer apply the theory of procedural justice to understand the effectiveness of Information Systems planning in multinational firms. The theory suggests that when subsidiary managers feel that they are being treated more fairly by the parent company, they are more committed, exert more effort, and thus perform better. A postal survey of 131 chief information officers of U.S. subsidiaries of multinational firms collected data to test hypotheses based on the theory. Data analysis revealed that autonomy for IS planning significantly predicted feelings of procedural justice. Greater feelings of procedural justice predicted greater subsidiary commitment to IS planning which in turn predicted more effective planning. These findings thus lend support to the theory, and suggest that parent managers consider delegating greater autonomy to the IS managers of their foreign subsidiaries.