
Editorial: Innovation and the knowledge ecosystem

Francisco Javier Carrillo

Tecnológico de Monterrey,
CETEC CT-524, Campus Monterrey,
Eugenio Garza Sada 2501 Sur,
Monterrey 64849, NL, Mexico
and
The World Capital Institute,
Senda Caprichosa 4428, Villa Las Fuentes,
Monterrey 64890, NL, Mexico
Email: fjcarrillo@itesm.mx

Biographical notes: Francisco Javier Carrillo is a Professor of Knowledge Management and Chair of the Strategic Focus Research Group on Knowledge Societies at Tecnológico de Monterrey. He is the President of the World Capital Institute. His current research interests are: capital systems, knowledge markets, knowledge-based development and new economic cultures.

This, the first number in volume 6, is particularly interesting from the perspective of the interactions between performance at both the micro and macro level and the social knowledge-base that drives innovation and development. Whereas several of the papers included in this issue look at the impacts of ecosystems capabilities on SMEs performance, others look at broader scopes of development either at the public sector level or at knowledge-based urban development. The wealth of methods and the interplay of levels of analysis used throughout these papers provide a good reminder of the interdisciplinary nature of KBD.

The paper by Robert B. Mellor resolves at the boundaries between the firm as a unit and the external knowledge networks developed by its key innovators. Using Markov chain Monte Carlo methods, this work models and quantifies the extent to which firm performance might be improved by the external knowledge networks created by its key innovators. The results stress the critical importance of just-in-time knowledge obtained through networking as opposed to mere addition of innovation roles in middle management.

Such results also contribute to emphasise the interdependence between firm-level KM and social-level knowledge-based development. On the one hand, an external knowledge capital base nourishes the innovation capabilities of individual companies. On the other, aggregate firm performance is conducive to overall development. Although several other key social, cultural and political conditions are also necessary, an innovative economic milieu can largely contribute to KBD.

Next, the paper by Helena Santos-Rodrigues, Carlos M. Fernández-Jardón and Pedro Figueroa Dorrego looks at product process innovativeness as a function of intellectual capital. By surveying 68 firms of the automotive sector in Northern Spain and Northern Portugal, they studied the following intellectual capital dimensions: human capital: formation and knowledge creation, innovative attitude and innovate incentive;

structural capital: culture of innovation, the trust and creation and knowledge development, finally, relational capital: collaboration networks, clients and alliances. The purpose was to determine the relative impact of each of these three major IC components on product and process innovation. The respective hypotheses became validated for both human and relational capital.

In their work, Gökçen Arkalı Olcay and Melih Bulu investigate the rationale for development fund allocation policies to SMEs in Turkey. Using multiple regression analysis, they undertake an empirical study to determine the effects of government support funds on firm net sales. Their results indicate that support funds significantly increased the overall financial performance of the 844 firms covered by the study. Specific differences with regard to size, sector and location also provide relevant inputs for policy makers.

Moving fully into the public sector, the paper by Satyendra C. Pandey and Andrew Dutta deals with the relation between knowledge infrastructure capabilities and knowledge management practices and processes. This study aims at understanding how cultural, structural and technological capabilities support KM, through the case study of a public sector enterprise in India: the National Thermal Power Corporation. The in-depth analysis of diverse sources leads the authors to conclude that the three knowledge infrastructure capabilities investigated play a significant role in knowledge management implementation. The authors suggest that the success of KM initiatives strongly depends on an effective coordination of these three capabilities.

Finally, the paper by Sven Conventz, Alain Thierstein, Florian Wiedmann and Ashraf M. Salama provides a broad assessment of the distinctive knowledge-based development pattern of Qatar and its capital city-region, Doha. The rapid evolution of Doha into a knowledge and cultural hub for the Arabian Gulf region provides the context for this study. The authors analyse intra-firm and extra-firm linkages of two domains of knowledge intensive firms: advanced producer services and high-tech sectors. The economic and spatial mapping reveals a unique pattern of urban KBD as well as a composite outlook of knowledge-base assets and potential liabilities.

Overall, the set of papers in this issue provide a rich illustration of current KBD research concerns and instantiate some trends indicating the internal consistency within the field. For example, the former distinctions between public-private enterprises, large-small companies, internal-external firm factors, traditional (material plus financial) and knowledge-based capital are consistently challenged and overcome. Also, the interdependence between intra-firm and regional innovation with knowledge management on the one hand and knowledge-based development on the other, become prominent.

The editorial focus of this journal on internationalisation and cultural diversity is well served by a set of papers covering research work carried out in countries including Turkey, India, UK, Qatar, Spain and Portugal. The geographical scope of the authors is even wider. Hence, theoretical and methodological diversity applied to geographical and cultural settings aims at providing a richer KBD perspective.

I conclude by thanking on behalf of the editors the invaluable contribution of all the reviewers that collaborated with this issue. This includes those who reviewed the published papers as much as those who reviewed papers that were rejected in the process. The generous intellectual contribution of all is truly appreciated.