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Tools and Methods to Assess Knowledge in the Knowledge Economy

Katia Passerini

New Jersey Institute of Technology

Jerry Fjermestad

New Jersey Institute of Technology

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AMCIS 2006 Tutorial Proposal
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Katia Passerini

&

Jerry Fjermestad

New Jersey Institute of Technology

School of Management & Information Systems (CCS).

Office: Central Avenue Building 4022

University Heights, Newark, NJ 07102

Tel. (973) 642 7328 Fax (973) 596 3074

Email: pkatia@njit.edu Web: <http://web.njit.edu/~pkatia/>

Title: Tools and Methods to Assess Knowledge in the Knowledge Economy

Abstract:

This tutorial provides an overview of various models and tools for the evaluation of knowledge management both at the national level (across national economies) and at the organizational level (across firms). The tutorial frames the concept of knowledge economies, knowledge management and knowledge development programs. It then focuses on a methodological framework - the knowledge assessment - to appraise national and organizational prospective capabilities to generate new information and knowledge. The knowledge assessment comprises of qualitative and quantitative exercises to collect benchmarking data on relative standing on a series of identified knowledge management drivers synthesized into comparable knowledge management indexes.

The tutorial presents a comprehensive review of current approaches to measurement systems that have been adopted by international organizations and firms. Examples discussed, tools and methods are based, among others, on the World Bank, the OECD, and the United Nations comparative country knowledge assessments. Similar examples are provided for an industry level analysis of organizations in multiple sectors. A synthetic review of monetary methods (citation weighted patent, Tobin's Q, market-to-book value, etc.) and non-monetary methods (balanced scorecard, intangible assets monitor, Skandia navigator, etc.) to assess knowledge assets is included with the larger discussion on knowledge assessments.

Lastly, the tutorial reviews the issues still open for achieving standardization and generalizability of the measurement models and lists open research areas and opportunities. In so doing, it also solicits enhancing the predictive capabilities of current models by describing the application of graphical approaches to current measurement systems. Participants in the tutorial session will be exposed to a holistic review of both organizational (micro-level) and national (macro-level) analyses. This review organizes and links extant and prospective models and suggests further exploring possible integration avenues. It challenges participants to extend frameworks across disciplines.

Outline:

- 1. An Introduction to the Knowledge Economy**
 - 1.1 The International Focus on Knowledge-Economies
- 2. Assessing Knowledge Economies: National Knowledge Assessments**
 - 2.1 Knowledge Assessment Processes and Procedures
 - 2.1.1. National Knowledge Assessment Experiences
- 3. A Review of Methodologies and Tools for Measuring National Knowledge**
 - 3.1 The OECD Science, Technology and Industry Scoreboard, Human & Social Capital
 - 3.2 The European Union Indicators
 - 3.3 The United Nations (UNCDAT) Scorecards
 - 3.4 The World Bank Knowledge Assessment Model (KAM)
- 4. Organizational Knowledge Assessments**
 - 4.1 Organizational Knowledge Assessment Processes and Procedures
 - 4.1.1 Organizational Knowledge Assessment Experiences
- 5. Integrating National and Organizational Knowledge Assessment Methods**
 - 5.1. Quantitative Approaches
 - 5.1.1 Measuring knowledge assets
 - 5.2. Qualitative Approaches
 - 5.3. Graphical Approaches: Bridging Qualitative and Quantitative Analyses
- 6. Summary, Open Issues and Research Opportunities**

Selected References:

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Bio Sketches:

Katia Passerini is Assistant Professor at the School of Management of the New Jersey Institute of Technology (NJIT) where she teaches courses in MIS, Knowledge Management and IT Strategy. She has published in refereed academic and professional journals (*Communications of AIS, Campus-Wide Information Systems, Computers & Education, Journal of Informatics and Education Research, Cutter IT Journal, Project Management Network*) and numerous conference proceedings, particularly in the area of computer-mediated learning, knowledge management and mobile communications standards and evolutions. Her professional IT experience includes multi-industry projects at Booz Allen Hamilton and the World Bank. Dr. Passerini earned both a MBA (Fulbright sponsored) and a Ph.D. degree in Information & Decision Systems from the George Washington University in Washington DC (US).

Jerry Fjermestad is Associate Professor in the School of Management at NJIT. His current research focuses on customer relationship management and on collaboration technology. He served as a special issue editor of *International Journal of Electronic Commerce, Journal of Organizational Computing and Electronic Commerce, Business Process Management Journal* and *Logistics Information Management*. His publications appear in *Decision Support Systems, Journal of Management Information Systems, Information Technology and Management, Information & Management*, and several other journals and conferences. Dr. Fjermestad holds MBA and Ph.D. degrees from Rutgers University, Newark (US).

Special Requirements:

LCD projector & Internet connection.¹

¹ Live connection would enable contextual display of some dynamic scorecard tools. If not available, static screen-shots will be used.