

## Knowledge Economics: Minitrack Introduction

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At the 2017 Hawaii International Conference on System Sciences, HICSS-50, the Minitrack on Knowledge Economics is being offered for the sixth time. Over the years, topics covered ranged from Crowd Capital to a discussion of current trends in the field by analyzing contributions published in this Minitrack.

According to the most recent work analyzing 16 contributions published in this Minitrack from 2012 to 2016, Knowledge Economics is a research field that concerns factors and activities aiming to generate knowledge outputs. The knowledge outputs are objects of commercial value and are generated in knowledge-intensive activities or processes by using knowledge creation or modification. Knowledge Economics also deals with the distribution and use of knowledge outputs.

The following two perspectives could be taken when analyzing phenomena related to Knowledge Economics:

A macro-perspective may analyze factors that have an effect on the quantity and quality of knowledge outputs in a society.

A micro-perspective may analyze the handling of knowledge outputs in distinct transactions. At the micro-perspective, the capturing, storing, searching and retrieving of knowledge outputs are subjects of interest.

During the past years, several papers in this Minitrack were aiming to build theories. A review of this year's contributions shows that the field of Knowledge Economics is becoming more solid. Papers published this year primarily cover aspects of applying the previously created concept of Knowledge Economics.

Moreover, the papers point to several promising research avenues, including a micro-perspective analysis of the impact of Knowledge Management in the manufacturing environment and a macro-perspective taken though the analysis of gender differences in emerging economies and their impact on the Knowledge Economy. Thus, the contributions to this Minitrack increasingly clarify that the economic impact of knowledge-related processes exists.

Furthermore, the impact can be quantified and explained so that society can benefit from applying appropriate measures of Knowledge Management.

The first paper, “**Demand-oriented Competency Development in a Manufacturing Context: The Relevance of Process and Knowledge Modeling,**” by Gergana Vladova, André Ullrich and Eldar Sultanow, introduces a procedural method and a software tool which enable resource-saving comparisons. Usually, employees’ “to competencies” are determined on a strategic level. Currently available “is competencies” could be derived from the actual knowledge transfer or from existing competence profiles. The method and tool allow for the appropriate visualization of both competencies.

The second paper, “**Gender and Business Competencies of Knowledge Workers in Poland,**” by Jolanta Kowal verifies the influence of gender difference and firm size on the self-assessment of business competencies perceived by knowledge workers in small regional enterprises of the Lower Silesia region in Poland, a transition economy. Interesting findings were that female knowledge workers in the study were noted to be younger than their male counterparts and that female knowledge workers are more likely to work for micro companies than male knowledge workers. According to the author, governments and politicians in transition economies should provide more assistance to females because they are in a more difficult position than their male colleagues.

The third paper, “**The Six Pillars of Knowledge Economics,**” written by Carsten Brockmann and Narczyz Roztocki, proposes the Six Pillars of Knowledge Economics framework. The framework articulates that six elements are essential to generate knowledge outputs: Innovation Capability, Leadership, Human Capital, Information Technology Resources, Financial Resources, and Innovation Climate. Knowledge outputs are the result of the microeconomic perspective on knowledge management. Knowledge outputs can be re-used and marketed within other areas.