

THE RELATIVE EFFICIENCY OF SLOVAK REGIONAL INNOVATION SYSTEM

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Abstract

Innovation processes can be analysed from the point of view of the national or regional innovation systems (NIS, RIS) approaches. The innovation process is the result of accumulation, evaluation and diffusion of relevant knowledge and in the sense of linear thinking, the knowledge innovation process can be defined as consisting of two sub-processes, knowledge production and knowledge commercialization with its own inputs and outputs.

Both processes are linked together by technological innovations (patents). The article uses DEA modelling (data envelopment analysis) to measure the innovation efficiency of above mentioned processes on the regional level. The reason for using innovation systems on regional level is the existence of geographical proximity, cultural and institutional conditions which bring spatial advantages and other incentives. The article focuses on the relative efficiency in eight regions of Slovakia. The DEA method shows that majority of Slovakia regions reach higher relative innovation efficiency in knowledge production process than in the knowledge commercialization. Findings also suggest that higher slacks can be found on the side of research and development expenditures in the knowledge innovation process.