Abstract

Currently, all private as well as public companies operate their businesses within the highly competitive environment. The competitive climate prevails not only at this level, but also among particular countries at the national level and among individual departments at the intra-organisational level. From the perspective of all mentioned subjects it is necessary to be able to evaluate the efficiency of the knowledge processes, the extent of the utilisation of their potential and the ability to appropriately handle knowledge. The knowledge intensity index should represent a useful tool for the aforementioned purposes. Therefore, this paper deals with the theoretical fundaments of this concept and outlines three potential approaches to knowledge intensity measurement. These are represented by the additive model, multiplicative and incremental model of knowledge intensity. Furthermore, these models require relevant data for their construction. For these purposes, two methods - the bottom-up and top-down - are introduced. Both the limitations of the knowledge intensity modelling and further research options are also discussed.

Keywords: Additive Model of Knowledge Intensity - Competitiveness - Incremental Model of Knowledge Intensity - Knowledge Intensity - Multiplicative Model of Knowledge Intensity.

Introduction

Nowadays, it is hard to gain and retain the competitive advantage not only from the organisational perspective. As discussed within various sectors and industries, knowledge is considered to be one of the rare renewable resources (Davenport and Prusak, 1998, van Zolingen, Sreumer and Stooker, 2001), which moreover possesses a significantly substantial innovative potential and therefore can be further developed. It is necessary to measure and monitor the ability and willingness of particular subjects to effectively use knowledge, especially for the purposes of the comparison of their capabilities and market position. The aim of this paper is to establish theoretical fundaments of the knowledge intensity modelling which might represent a utilisable tool for the organisational evaluation and comparison in the realm of their competitiveness. Firstly, the paper determines the knowledge intensity concept and its context. In the next part three potential approaches to the knowledge intensity measurement are outlined. These are represented by the additive, multiplicative and incremental model of knowledge intensity. Furthermore, these models require relevant data for their construction. For these purposes, two methods - the bottom-up and top-down - are introduced. In the next section of this paper, both the limitations of the knowledge intensity modelling and further research options are mentioned and analysed. Finally, the discussed issues are concluded.
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