Labour Productivity and Possibilities of its Extension by Knowledge Management Aspects

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Abstract

Productivity represents a phenomenon that is investigated by researchers, who have already created several productivity models, and applied by practitioners who pursue models’ usability. Various aspects and issues are incorporated in and several disciplines contribute to existing models. All these activities are conducted at three basic levels which are not always clearly distinguished. The aim of this discussion paper is to provide with review of labour productivity within the context of knowledge society. The paper covers theoretical frame of productivity, knowledge management and discusses if and how labour productivity may be positively influenced by the existence of the knowledge society in general and knowledge management programmes in particular. © 2013 Published by Elsevier Ltd.

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1. Introduction and problem formulation

In general, productivity measures output relative to input and it is a core factor of economic growth (OECD, 2001) or an enabler of ensuring strategic advantage (Porter, 1980). The economic terminology finds productivity, as an indicator of efficiency of resources use, to present a ratio of amount of goods produced within certain timeline and amount of work necessary for goods production within the same timeline. Thus, labour productivity determines amount of goods produced within a labour unit. However, every field or industry sector uses its own modifications, specification or level of details focused on their particular needs (Song & AbouRizk, 2008). For instance, project managers and construction professionals define productivity as a ratio between earned work hours and expended work hours, or work hours used (Hanna et al., 2005). While there are several input resources in a transformation process, labour productivity plays a particular role. A deeper comprehension of the factors influencing labour productivity can enable managers to more effectively allocate limited resources, provide workers with better support, or increase workers' motivation (Marešová et al., 2011). Recent studies have indicated the value of production labour or non-production labour (e.g., engineers, product designer, quality inspectors, and administrators) to a manufacturing plant's productivity (Wacker et al., 2006). However, research that has been presented up to date faces two major defects. First, studies mostly investigate the effects of one of the influencing factors on the labour productivity (e.g. (Jeanneney & Hua, 2011)) and they are not able to account for the effect of all the influencing factors. In reality, the labour productivity is influenced by many other factors which have

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complex interactions among each other. Rarely do research studies incorporate systems approach that should be applied (Bureš, 2006). Second, most research fails to reflect current progress in knowledge-related disciplines. Knowledge technologies, knowledge management, or knowledge economies remain unconsidered in particular models. For instance, Nasirzadeh and Nojedehi (2012) tried to bridge this gap and investigated labour productivity as a systemic phenomenon and described mutual interrelationship among several factors such as worker’s motivation, fatigue, skillfulness, availability of materials, adverse weather conditions, or time per task. Their conceptual model of labour productivity contains almost fifty factors, however, explicit expression of knowledge is missing. The only closely related factor is training, which is only influenced by the “deficiency in financial resources” and affects the “skillfulness”. The last hint more or less related to knowledge is related to the factor “unfamiliarity with new technique”, which is again causally connected with only one cause and one effect. Due to the above, the aim of this paper is to provoke a discussion on incorporation of knowledge aspects into the labour productivity indicators.

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References


