Impact of Building Human Capital with Support of Information Technology on Efficiency of Hospital Activities

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ABSTRACT

The purpose of this article is to present the results of a research on the impact of focusing of managers on human capital with support of information and communication technology on an effectiveness of Polish hospital activities. A survey questionnaire addressed to the managers of Polish hospitals was used in order to collect research data. A statistical method - structural equation modeling (SEM) was applied to analyze the gathered data. A research model proposed in the study was properly matched to the data and presented a positive and causal relationship between the level of information technology development and focusing managers on the building of human capital on operational efficiency of Polish hospitals activities.

KEYWORDS

Healthcare Management, Information Technology, Management of Human Capital, Operational Efficiency of Hospitals

INTRODUCTION

Knowledge and skills of employees are often called human capital. It is an essential component of broadly defined intellectual capital of an organization, which consists of a thinking part - (the human capital) and a non-thinking capital (structural capital) (Roos, Roos, Dragonetti, & Edvinsson, 1997). Thus, human capital management should be a priority for an organization, especially in the provision of medical services. In this case the knowledge and skills of medical personnel have a great importance.

Nowadays economic activity (with very few exceptions) is not possible without the participation of information and communication technology. Information and communication technology should improve the efficiency of any business (Jelonek, Stepniak, Turek, & Ziora, 2013). However, a reflection on the impact of ICT, for example, on the effectiveness of the economic activities are still important.

The quality and effectiveness of healthcare play significant role for both the overall economy and for the health-care of a consumer. Cost-effective healthcare is crucial to the financial stability of many stakeholders, so that the quality and effectiveness of programs are particularly important in times of economic challenges. Quality and efficiency occupy a significant position in the reform and development of the healthcare system.

This paper presents the result of analysis concerning relationships between the level of development of ICT, building human capital and efficiency of activities in hospitals of Poland.

SEM modeling allows scientists to test substantive theories and also allows to draw causal conclusions based on non-experimental research. This is one of the most important reasons for using SEM in many areas of science. The second reason is the fact of explicitly taking into account the measurement errors that are common in most disciplines and the typical use of latent variables. The number of Polish hospitals is over 1000 and the research sample was 156 returned questionnaires.

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FOCUSING ON BUILDING HUMAN CAPITAL

In the majority of modern commercial and non-profit organizations, including public organizations, managers should take into account the importance of knowledge management as well as management of information processes (Nowicki & Sitarska, 2010). These and other intangible resources are significant elements of management of organization. The managers should perceive knowledge as a very important resource in an organization. Knowledge management is becoming more and more important field of managers’ responsibility such as capital management, human resources, economic performance or physical resources. This also concerns medical activities (medical services). These services are very important to patients. They should be performed by qualified staff which uses the newest scientific and medical technologies accomplishments.

A. Toffler and H. Toffler (1995) state that the foundation of all economic systems is knowledge, and all economic activities depend on its collected intellectual resources. Economists and entrepreneurs usually omit this element in their accounts of costs, as opposed to the capital, labor, and land.

I. Nonaka and H. Takeuchi (1995, p. 11) suggest that knowledge manifests itself in two forms of tacit knowledge and explicit knowledge, i.e. available, mainly in formalized and codified forms. Tacit knowledge is the result of experience gained by people. Explicit and tacit knowledge used in human economic activity is often called human capital as perhaps the most important element of each organization’s intellectual capital. According to N. Bontis (2001), human capital is the most important type of business assets. Human capital is various knowledge that people possess, create and enrich. They have the ability to think creatively, so they may be a source of new ideas, solutions and the development of economic entity. Other definitions and comprehensive characteristics of the concept of human capital are presented in (Goldin, 2016).

A characteristic feature of the modern economy is the growing importance of the so-called intangible assets and especially the growing importance of human capital. This is particularly important in organizations that provide so-called professional services, for example, in medical entities. Efficient and professional management of medical entities and their human capital is very important for the following reasons:

- Provision of medical services requires extensive knowledge and relevant skills,
- Health care is financed from public funds in most countries,
- Medical services are very important for patients - health is one of the greatest values,
- Healthcare entities operate on the partly controlled market.

In summary, focusing on human capital management is very important, especially in the entities providing medical services.

THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN HEALTH CARE

The role of information and communication technology is very important in any kind of economic activity but also difficult to classify due to the very rapid development of ICT. The same is true for the so-called hospitals information systems.

The information system of most medical entities refers to several basic areas of their activity:

- Patient’s stay and medical data related to that stay
- Provision of medical services
- Administration and other auxiliary activities
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