Chapter 13
The Information Sector in the Economy and its Strategic Value

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ABSTRACT

This discussion focuses on the idea of an information society studied in view of economic aspects. The subject matter of inquiry is a strategic sector decisive for the situation of economy, society and the state: the so-called information sector in the economy. Its importance and intrinsic value are discussed. Studies on economics of the information sector are brought to light as well as relationships with other disciplines, including economics of information (information systems) and information ecology. Based on the Polish Classification of Activities (PKD), the methodology of classification and categorization of the information sector is developed and used to evaluate its development and, indirectly, the development of the information society in Poland. Research is based on available statistics on the number of employed persons and employment in 1997-2006. It is evidenced that the information sector dominates in Poland today (in the four-sector model of the economy) and the trend of its regular growth is observed.

INTRODUCTION

Man has rarely been far from the information business. Looking back over history it could be said that people have, from early times, been traveling, exchanging ideas, and acquiring information and knowledge. However, radical changes in this field have taken place only recently, together with the development of communication technology, television, radio, and today, the Internet, distributed business environments and information systems implemented in borderless organizations.

Economies have always been "propelled" along their way by information and knowledge (although this was never actually focused on or measured), and by innovation (today recognized as primarily IT). However, changes present in managerial and decision-making environments, resulting especially from the influence of information and technology,

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and process virtualization, are of a spectacular nature, as reflected in numerous statistics.

Economists have only recently tried to estimate the influence of information processes on the economy. Now, given that nearly all types of operations are essential for economic processes, this observation has been applied to information-related business operations. Information is often placed at the centre of economic thinking and studies undertaken.

As stated in one such study: "(…) Information describes land, work and capital. Information reduces the need for land, work and capital, raw materials and energy (...). It is sold in a specific way and constitutes raw material for a new sector of the economy (...) – the information sector" (Stonier, 1984, p. 212).

The subject under consideration is the strategic sector, crucial to the state of the economy, society and the state – known as the information sector of the economy.

In this paper the concept of the fourth sector and its essential role is discussed in the context of a specific economic discipline – economics of the information sector, whose main aim is to assess sections of the national economy – its information sector.

BACKGROUND

Economics literature suggests various categorizations of economic sectors. Usually the three-sector model is adopted as follows:

- the primary sector (I): in statistics, it covers agriculture, hunting, forestry, fishery, fishing, mining; this sector is associated with basic food, mining and quarrying, obtaining raw materials such as coal or wood, etc.;
- the manufacturing sector (II): associated with processing of raw materials into finished goods; in statistical classifications it covers production and construction and, additionally, electricity, gas and water supplies;
- the service sector (III): created by other activities in the area of education, banking and finance, trade, public administration, healthcare, transport, tourism etc.

The theory of the tree-sector model introduced by Kaldor (1967) argues that there is a strong correlation between employment and manufacturing in individual sectors and the level of overall social and economic development, i.e. that sectoral proportions of the economy evidence the level of an economic development of particular countries.

Today this classification needs to be supplemented with a new fourth sector of the economy: the information sector (IV).[1] This need is an outcome of the function of information (and knowledge) in economic processes, a vigorous development of information and communication technologies and an increasing importance of information and IT for economic development. Following Kaldor's train of thought it may be concluded that modern economies of developed countries are dominated by the information sector.

For the purposes of this work, a four sector model was proposed – comprising the primary sector (I), along side the manufacturing sector (II) and service sector (III), and the fourth sector – the information sector, which incorporates elements of the above three sectors including, amongst others, the education and scientific research sphere, computer production, the publishing industry, the postal service and telecommunications, information services and public administration etc. The concept of an information sector was introduced into economic research by M.U. Porat (1974, 1976, 1977).

In the further discussions, we propose the following definition of the information sector: The information sector in the economy is understood as overall business activities that support the production, use, protection, collection, storage,