TEMPORAL DYNAMICS OF INTANGIBLE ASSETS' STRUCTURE IN EU COUNTRIES

Diukova Natalya

Odessa national Mechnikov university,
Ukraine, Odessa
ndiukova@gmail.com

The goal of the theses under concern the author was to understand the dynamics of the intangible investment in terms of its structure in EU member countries as observed in the years 1999-2008 (the last year for which the necessary data exists) and identify the most promising type of such investment.

The temporal dynamics will help to understand the trend of the overall development of different types of intangible assets in the countries with the highest level of knowledge development and this will give the direction and guidance for those making the intangible assets' investment decisions in Ukraine for the future.

The novelty of the paper in question is that despite the great number of studies of the intangible assets' structure, there is the lack of investigations related to this issue concerning not one separate country, but several prominent EU countries together, in terms of the intangibles' temporal dynamics. Apart from this, not standard approach to the intangibles' types filling used in this paper gives the possibility to analyze the structural dynamics in the new and interesting way.

Dynamics of the composition of the intangible investment structure during the years was analyzed with the help of the structural changes' indices. The analysis of the dynamics of intangible investment structure became possible with calculating the mean coefficients of relative structural changes based on the first (1999) and the last (2008) years for which the data exists. The formula, where the share of the current year intangible capital is divided by that of the previous one and n is the number of shares in the structures, according to which the mean coefficients of relative structural changes were computed is the following (Sivelkin, Kuznetsova, 2002):

$$\sigma_z^{O_t} = \sqrt{\frac{\sum_{i=1}^{n}\left(\frac{d_j}{d_{j-1}}-1\right)^2}{n}}.$$

The main sources of the data used for indices calculation were the EuroStats data bank, OECD database and Coinvest data. 4 EU countries have been chosen for the analysis : Germany, France, Italy and Spain, as these countries are indicative for the whole European Union in terms of the intangibles' investment. The following types of such investment are used: computerized information (software and databases), economic competencies (brand equity, firm-specific human capital and organizational capital) and innovative property (R&D in natural science and social sciences, mineral explorations, copyright and license costs, development costs of new products in financial industry and new architectural and engineering designs).

On the basis of the structural indices calculated the following conclusions have been made. There is the shift towards computerized information and innovative property as the constituents of such intangible capital is increasing, with the innovative property being the most promising type of investment in terms of the future gains and the main source of the competitive advantage. The biggest structural changes among the countries analyzed were observed in France (0,4353) and the smallest ones - in Italy (0,0308) meaning there were almost no changes concerning the structure of the intangible capital in the latter country during the period under analysis.

<div align="center">LIST OF REFERENCES</div>

1. Coinvest Database. www.coinvest.org.uk.

2. Corrado, C. A., Hulten, C. R. and Sichel, D. E. (2006). *Intangible Capital and Economic Growth*. NBER Working Papers 11948, National Bureau of Economic Research, Inc.

3. EUROSTAT Statistics Database. http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes

4. OECD Statistics Portal. <http://www.oecd.org/statsportal/0,3352,en_2825_293564_1_1_1_1_1,00.html>

5. Sivelkin, V., Kuznetsova, P. (2002) *Statistical Analysis of Social and Economical Processes Stucture*, Orenburg.