

IARIW-ESCoE Conference

“Measuring Intangible Assets and Their Contribution to Growth”

Impact of intellectual property products on the growth of value added in the pharmaceutical industry

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Pharmaceutical industry has an important role in Hungarian economy, and it is deeply integrated in the global value chains. This industry is affected by the problems related to the intellectually property products (IPPs). Moreover, the coverage of this asset category is different in the Hungarian Accounting Law (intangibles) and in the European System of National Accounts (ESA 2010) (IPPs). IPPs interact with the economic growth and have impact on the productivity; therefore, the proper measurement of IPPs is essential.

Several types of IPPs and intangibles are observable in this industry, e.g. research and development (R&D), property rights, software and databases and goodwill.

Our research question was how economic growth depends on the changes of IPPs in the pharmaceutical industry. We collected data from annual reports, income statements and balance sheet of the related companies for the period 2010-2019. Gross value added (GVA) is calculated using income statement data. IPPs data source is the Changes of Assets table in the annex of annual report. Data were organised in a database and analysed by cross sectional and time series methods. The cross sectional analysis was carried out as cluster analysis for each year. The size of enterprises and the type of IPPs were the variables of the cluster analysis. In the time series analysis the price indices of related activities (NACE 72 and 21) were used. The connection between the different categories of IPPs and economic growth were specified by the time series analysis.

Our analysis verified the connection between the growth of GVA and the changes of IPPs, hence we implicitly proved the relationship between the changes of intangibles and productivity.