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Research of the current factors influencing the development of chemical manufacturing within the neo-industrial context

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Abstract:

The article investigates the problems associated with the adoption of a neo-industrial model of development within the Ukrainian chemical industry, and considers the determining factors. The relevance of this research lies in the declining competitive potential of the national chemical industry. At the same time, the contemporary chemical manufacture has a systematic influence on the processes of neo-industrial modernisation by means of producing cutting-edge materials and components for new "smart" industries. Because of this, the perspective of modernising the Ukrainian chemical industry is associated with the application of advantages of neo-industrialisation and its inclusion in global value chains. The choice of the ways, in which the neo-industrial concept is applied, depends on a number of current factors influencing the development of chemical manufacture. The main objective of this paper is to investigate those factors and to identify the paths for neo-industrial transformations within the industry. It is shown that among the determining factors, a distinction has to be made between those that are systematic (addressing the contents and character of neo-industrial transformations) and those that are situational (establishing the current conditions and local specifics). A statistical analysis of the factors, influencing the development of the Global Top 50 Chemical Companies, has been carried out. Differences in companies' indicators have been shown in relation to the focus of their activity. On the basis of a correlation and regression analysis, a close link has been found between the operating profits of large chemical businesses and their chemical assets, capital spending and R&D spendings. The specifics of the existing institutional structure of the Ukrainian chemical industry have been studied alongside the developments in its innovation processes to date. It has been concluded, that the large Ukrainian companies cannot become a driving force for neo-industrial change within the industry. It has been established, that the future of the national model for neo-industrialisation within the chemical industry should be for small and medium-sized innovative enterprises, and the development of light-weight production within the final stages of value chains.

Keywords: chemical manufacturing; industry; modernization; innovative development; neoindustrialization; company

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