

Assessment of the Level of Knowledge and Analytical Skills of Students in The Practical Use of Spreadsheets: An Empirical Study at A Technical University in Poland*

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* Presented at the 44th IBIMA International Conference, 27-28 November 2024 Granada, Spain

Abstract

The article focuses on assessing the level of knowledge and analytical skills of technical college students in the practical use of a spreadsheet, with an emphasis on Excel. The motivation for the study was the growing role of spreadsheets in business analytics, as well as the need to understand the extent to which students are prepared to use this tool in professional practice. The authors noted an existing gap in the literature regarding limited research on the actual skill level of technical students in the advanced use of Excel, making this study relevant. The methodology of the study included a questionnaire targeted at technical college students to assess their spreadsheet skills. The research focused on aspects such as the ability to process and interpret data and the ability to solve analytical problems using Excel. In the theoretical part of the article, the history of spreadsheet development was reviewed, with particular emphasis on its use in business. This review was intended to introduce the reader to the context of the tool and its versatility. The results of the empirical study provided a comprehensive picture of students' level of knowledge. The analysis showed that while students appreciate Excel's broad capabilities and recognize its importance in both office work and research and management activities, there is a gap between their expectations and actual skills in using some of Excel's advanced functions. The survey summary indicates that technical graduates should have advanced spreadsheet skills, but the survey results suggest the need to improve curricula to better prepare students for the challenges of its practical application.

Keywords: spreadsheet, empirical research