U.D.C. 930.2:929:519.6

**PARKHOMENKO
Viktor**
PhD student
fullmetalekolog@gmail.com
https://orcid.org/0000-0003-3206-3199
https://publons.com/researcher/3596929//
AAM-6740-2020
National Scientific Agricultural Library, National
Academy of Agrarian Sciences of Ukraine
аграрних наук України
(Kyiv)

USE OF EXCEL ELECTRONIC SPREADSHEET FOR BIBLIOGRAPHIC DATA ANALYSIS IN HISTORICAL RESEARCH (ON THE EXAMPLE OF V.G. AVERIN'S SCIENTIFIC ACTIVITY)

The possibility of using Microsoft Excel spreadsheet for statistical analysis in research into the history of science, in particular, to study the scientific contribution of individual authors is presented based on the example of V.G. Averin's contributions. It is revealed that version 2007 or later is required for correct operation of Excel, since formulas may not work correctly when performing calculations. For initial analysis, only three kinds of Excel formulas are sufficient such as COUNTIF, COUNTIFS, and SUMIFS. Features of creation of the bibliographic list database and its analysis are given. The list of parameters required for a full analysis is specified, including the title and year of publication, type of publication (monographs, periodicals, notes, etc.), number of pages, individual or co-authored, language of publication, and research topic (zoology, botany, geology, etc.). Several examples are considered in detail: a chronological analysis of the dynamics of publications, analysis of publications dynamics according to the

language of writing, analysis of the topic of publications and its breakdown by years. The specifics of each method and the results that can be obtained are discussed. Step-by-step instructions to create and analyse databases in Excel are provided, with examples of tables required for their statistical analysis (with formulas used). Advice on the easiest and fastest counting and analysis options is given, as well as charts and graphs that can be obtained from this analysis. The list of additional parameters to carry out bibliographic analysis (type of publication banned by Soviet authorities, number of citations, etc.) is presented. In addition, possible errors that may occur when working with this program (formula language, quotation marks, empty cells, transfer of tables from Word to Excel) are pointed out and recommendations are given to avoid them as well as options for their solution. When entering new data, it is possible to automatically calculate and add new formulas. All analysis procedures are based on the author's experience.

__Keywords:__ mathematical methods, statistics, MS Excel, history of science, methodology, bibliographic analysis, scientific contribution of personalities.