



THE ROLE OF ACADEMIC LIBRARIES IN SCIENTIFIC PRODUCTION EVALUATION – THE EXPERIENCE OF UNIVERSITY OF ZAGREB, CROATIA

Branka Marijanović, Višnja Novosel, Tatijana Petrić, Zrinka Udiljak Bugarinovski

University of Zagreb, Croatia

University of Zagreb (UNIZG)

- The oldest Croatian university as well as the oldest university in Southeast Europe (founded in 1669 by King Leopold I Habsburg)
- Offers education and covers research in all scientific fields (arts, biomedicine, biotechnology, engineering, humanities, natural sciences and social sciences), a wide spectrum of courses at all study levels, from undergraduate to postgraduate (**Humboldtian university model**)
- The University consists of 31 Faculties, 3 Art Academies (70 000 students)
- Excels in research, contributing with over 50% to the annual research output in Croatia
- Makes 80% of scientific productivity of all Croatian universities

Scientific production evaluation

- Bibliometric services at academic and research institutions enhance research support and strengthen the position of the academic library and its visibility to researchers
- The services reinforce partnership between librarians and research institutions
- 3 relevant factors:



EDUCATION/SKILLS



LEGAL
FRAMEWORK



OPERATIONAL
MANAGEMENT



Research Goals

- Identify:
 - the bibliometric service at the UNIZG libraries (types of bibliometric services offered)
 - role of librarians in scientific evaluation (legal framework)
 - competences necessary for bibliometric professionals (education, skills)
- Give an insight into the status and assimilation of academic librarians into the system of scientific advancement at the University of Zagreb
- Provide suggestions for upgrading of scientific evaluation services at the UNIZG



Research Methodology

- 1) Content analysis (legislative framework, library science study programs, training Croatia)
- 2) Questionnaire (UNIZG Libraries)
- 3) Group Interview (UNIZG library managers focus group)
- 4) Correspondence with Library Science study program leaders and Croatian Centre for Continuing Education of Librarians (CSSU) program manager
- 5) Data analysis and synthesis



Research Methodology - Sample

1) Content Analysis

- **Legal framework** – regulations applicable to Science and higher education of the Republic of Croatia
- **Study Programs (Croatia) - Information and Library Science**
 - 1) Department of Information Science, University of Zadar
 - 2) Department of Librarianship, Faculty of Philosophy University of Zagreb
 - 3) Department of Information Science, Faculty of Philosophy University of Osijek
- **CSSU training courses**



Research Methodology

- 2) Survey questionnaire**
 - sample: 39 University of Zagreb academic libraries, online anonymous questionnaire sent to library managers (62% responded)
 - 12 questions - 1st set of questions: specification of the bibliometric service and its users
 - 2nd set of questions: professional competences necessary
- 3) Interview** – focus group (6 academic library managers of the University) group interviews
 - participants were selected in such a way as to cover all scientific fields
 - topics discussed: experiences, personnel structure and competences/education, form of certificates, impact on the position of the library within the home institution and the legislative framework
- 4) Email Correspondence** – Information Science/Library Science study and CSSU program leaders (content analysis supplement)



Results - Legislative Framework

- **Legislative acts (defining the role of Croatian higher education libraries in scientific productivity):**
- *Law on Scientific Activity and Higher Education; Standards for higher education, university and scientific libraries; Ordinance on the conditions for election to scientific titles; Statute of the University of Zagreb; Strategy of the quality assurance system of the University of Zagreb; Evaluation of scientific research and promotion of open access to scientific information and research data, ...*

“Indexation of journals in databases of scientific journals, citations of papers and other bibliometric data are determined by libraries of public higher education and scientific institutions. The libraries shall issue appropriate certificates to applicants.” (*Ordinance on the conditions for election to scientific titles, 2017*)

Results - Acquisition of Competences

- Analysis of study programs
- E-mail correspondence to determine the information about bibliometric programs incorporated into curricula
- University of Zadar - bibliometrics - an elective subject at graduate level since 2005 (4th and 5th year of study); at graduate level – elective course Scientific Communication and Evaluation of Scientific Work since 2013
- University of Zagreb – undergraduate level – elective course elective Bibliometrics, Journals and Scientific Communication (since academic year 1986/87); graduate level – obligatory course Marking and search systems I and II (dealing with various aspects of the evaluation of scientific communication)
- University of Osijek – undergraduate and graduate level – elective course since 2010

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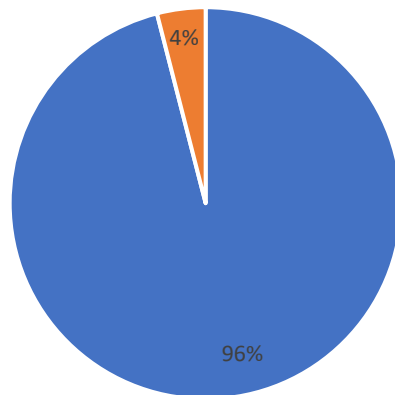


Acquisition of Competences - CSSU

- Croatian Centre for Continuing Education of Librarians, operating since 2002
- runs an accredited continuing education program for librarians and information specialists in the Republic of Croatia
- Bibliometric courses started in 2013: Bibliometric library services 1 - indexation and citation of scientific papers; Bibliometric library services 2 - metric indicators of journals (held in 2013, 2014, 2015, 2016 and 2018)
- Scientific Representation and Citation: Bibliographic and Citation Databases (from 2013 to 2015)
- since 2016 - Evaluation of Scientific Productivity: Index and Citation Analysis of Scientific Papers and Journals (held in 2016, 2017 and 2019)
- webinar Bibliometric Indicators in Evaluating Scientific Productivity (held from 2018 to 2021)
- Webinar Bibliometric Analysis and Evaluation of Scientific Productivity of Scientists of the Croatian Scientific Community (since 2022)

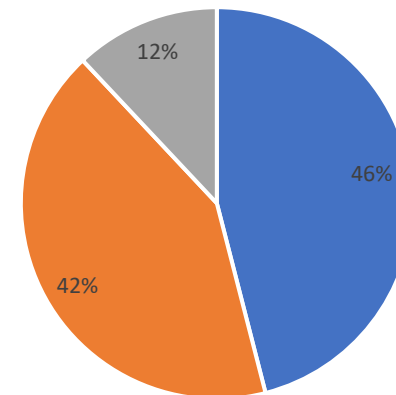
Research Results - questionnaire

The share of libraries offering the bibliometric services to its users



■ Yes ■ No

Number of years academic libraries have been offering bibliometric services



■ 5+ ■ 1-5 ■ less than 1



Research Results - questionnaire

Types of bibliometric services offered:

1. Reports intended for scientific advancement
2. Reports for faculty evaluation procedures (faculty accreditation, accreditation of doctoral programs)
3. Analysis of scientific productivity for planning purposes at the institutional level
4. Bibliometric reports for project applications
5. Reports for the purposes of granting faculty awards

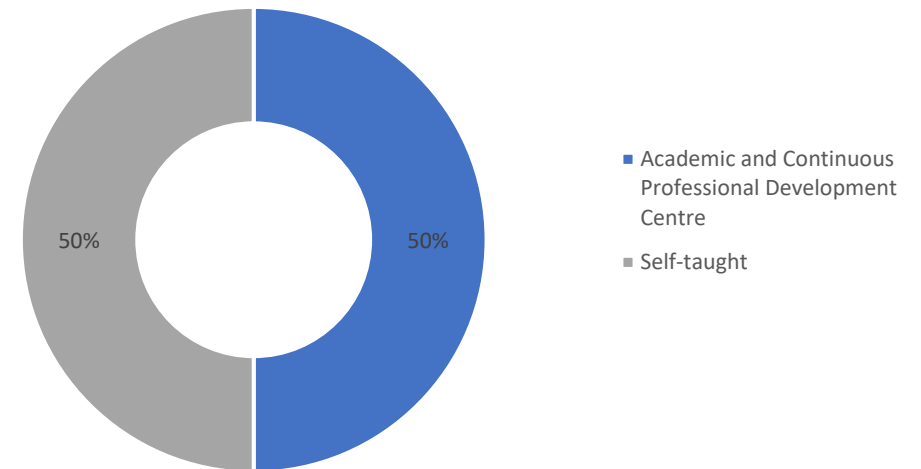
Most popular bibliometric services - Bibliometric reports intended for scientific advancement (75%)

Research Results - questionnaire

Top skills required:

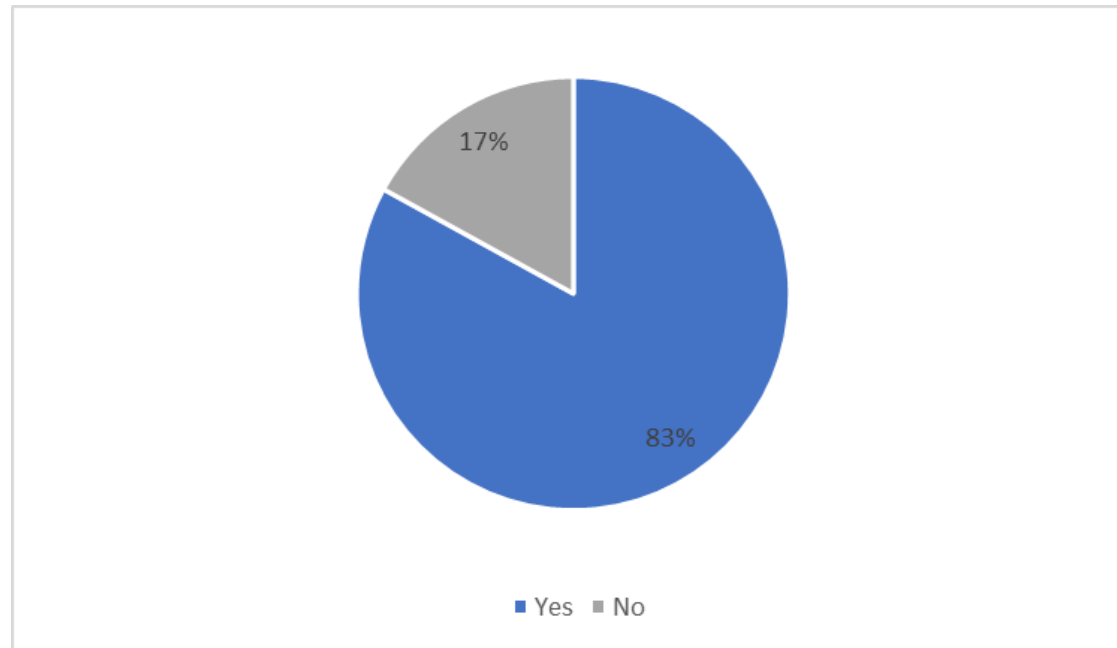
1. Practical bibliometrics
2. Metrics, statistics, understanding of indicators and analytical skills
3. Regulations applicable to the specified area
4. Academic environment (Croatian scientific community, scientific production of the parent institution)

How do librarians acquire the specific skills:



Research Results - questionnaire

Should bibliometric service be a regular library service of each library at the University?



Research Results – group interview

- **Experiences** (diversity of scientific fields - the way to advance to higher titles depends on the scientific field - libraries of certain scientific fields are less burdened with the task of evaluating scientific productivity); price - most believe that employees of the home institution should not be charged, and external candidates should
- **Form of certificates** – mostly digital, not unified
- **Personnel structure and competences/education** - staff shortages - the continuing problem; importance of competencies was emphasized - in addition to requiring special skills and knowledge, there is also a great responsibility for the data presented (most of librarians are self-thought or have completed CSSU seminars); competencies acquired through non-formal education are not sufficient
- **Impact** on the position of the library within the home institution and the legislative framework - all participants agree that the emphasis on libraries in the current regulations has significantly affected the position of the library within the home institution in a positive way

Conclusion

UNIZG libraries:

- Assimilated into the system of scientific advancement at the University of Zagreb
- Play a significant role in scientific evaluation
- Academic libraries role is now embedded into Croatian regulations as a necessary and indispensable component in the process of scientific and academic advancement
- Specific competencies necessary for professionals conducting bibliometric analyses (legal, academic environment, analytical skills, etc.)
- The service is not standardized, uniformed; there is no central database of scientific output evaluation at the University
- Librarians are either self-thought or educated at CSSU seminars; there are problems with staff shortages



Recommendations

- Create a framework for the systematic review of scientific production evaluation at the University of Zagreb (Enhance the quality and utility of bibliometric reports)
- Unify the service (in accordance with scientific fields), create University library system! (non-integrated university); standardize the procedures, form and pricing
- Enhance education for bibliometric professionals (revise the existing formal education curricula in accordance with the modern needs of librarianship and academia)
- The current changes in the legislative framework in the educational and scientific sector should continue to point out a prominent role of academic libraries in the evaluation of scientific productivity
- Create a unique database where the results of the evaluation of scientific productivity would be visible
- Advocate a higher status of bibliometric professionals at the University
- establish communication and professional cooperation between the libraries and the UNIZG legal authorities



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THANK YOU!