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ACADEMIC LIBRARY RESEARCH DEVELOPMENT IN THE CONTEXT OF IF OF JOURNALS: BIBLIOMETRIC ANALYSIS OF ARTICLES BASED ON THE LISTA DATABASE (2000-2019)

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KEYWORDS: Bibliometric analysis. Academic libraries. Research trends. University libraries. College libraries.

ABSTRACT: **Thesis/Objective** – This paper presents the results of bibliometric analysis of the metadata of 16095 articles about academic libraries published between 2000 and 2019, extracted from the Library, Information Science and Technology Abstracts (LISTA) database.
The aim of the authors of this paper was to find out about the growth of research on academic libraries and also about the authors' choice of the place of publication (journals with and without IF). **Method** – In order to achieve the set goals, the following research methods were used: bibliometric analysis, method of document analysis, method of literature review, comparative method. **Results** – The study confirmed that the journals with IF, despite some doubt regarding the Impact Factor as such, enjoyed a growing interest of authors throughout the whole analysed period, while the number of articles published in journals without IF clearly decreased.

INTRODUCTION

The issue of research development in the area of academic libraries is not often addressed in the literature. LIS research in general is discussed much more often. As a matter of fact, there have been no studies with longer chronological ranges and there are no figures reflecting the interest of researchers in the subject of academic libraries. This is the first reason for the authors undertaking the research project the results of which are discussed in this article. Another reason was the lack of publications on the relationship between researchers' interest in the topic of academic libraries and the place chosen for the publication of texts. When planning the research, the authors focused on journals as the fastest and most popular form of scholarly publication. They wondered whether the Impact Factor (IF) influences the choice of the journal for publication.

IF is calculated by Clarivate to reflect the yearly average number of citations of articles published in the last two years in a given journal. Thomson Reuters' Journal Impact Factor was developed to evaluate the quality of a journal based upon the citations received from its published works (Garfield, 1999, 2003; Law & Leung, 2020).

For many researchers and the institutions they represent, the number of accepted publications in high IF journals reflects the quality of their research. It has been noticed that researchers publishing articles in the field of Library & Information Science (LIS), including papers on academic libraries, are beginning to pay increasing attention to the conscious choice of journals in which they submit their texts. The authors were familiar with the concerns expressed by Eugene Garfield, the originator of IF and the person responsible for the creation of the Journal Citation Report (JCR), about the way journals are categorised in the selected database. He stated that the heuristic methods used by Thomson Scientific for categorizing journals are by no means perfect (Garfield, 2006, p. 92).

However, based on the authors' initial observation, it was clear that it is those journals that have an IF – despite it being debatable and perceived as imperfect in the scientific world (Garfield, 2006; Williams, 2007; Callaway, 2016) – that are more frequently selected, while interest in those that do not have this factor decreases.

LITERATURE REVIEW

The topic of academic libraries is one of the most frequently discussed subjects in LIS research worldwide. It ranked fourth in 2001-2005, after "bibliometrics", "knowledge management" and "social media" (Onyancha, 2018, p. 465). Academic libraries as a popular topic for LIS emerged in the 1990s (Dora & Kumar, 2020, p. 243). The few texts found on the topic include articles from the second decade of the 21st century (Sootheran, 2014; Hydar et al., 2015; Dora & Kumar, 2020; Srirahayu et al., 2020). At the same time, it should be noted that bibliometric and content analysis on the area of academic libraries research trends are very limited. The scientists pay little attention to this theme in the scientific literature (Cervone, 2005; Sootheran, 2014). Thus, despite the interest of researchers in the topic of academic libraries, following the development of research in this field is not a priority area of study, although we may observe some articles about bibliometric analysis of selected periodicals (f.i. Aslam et al. 2021). Much more frequently, studies are carried out in the area of trends in LIS research in general.

They have been conducted since the second half of the 20th century. It is in those analyses that authors sometimes distinguish academic libraries

as a separate area of the trends diagnosed (Atkins, 1988, Järvelin & Vakkari, 1990; Buttlar, 1991; Kumpulainen, 1999; González-Alcaide et al., 2008; Milojević et al., 2011; Singh & Chander, 2013; Tuomaala et al., 2014; Dora & Kumar, 2020; Han, 2020).

The interesting discussion on the issue of IF, held on the pages of scientific journals, was a stimulus for the authors to not only analyse the development of researchers' interest in the topic of academic libraries, but also to answer the question whether IF is important for the authors publishing papers on this topic. When analysing the available literature on IF, we can find works on its genesis, reasons for the application of IF, but also its meaning and advantages and disadvantages.

The history of IF has been discussed, among others, by its creator Eugene Garfield (1999, 2003, 2006). When highlighting the advantages of the system, authors point out that it is the most frequently used journal-based metrics (Koeblinger et al., 2019), which helps identify quality publications in the scientific community (Kulczycki et al., 2021, p. 8542). The drawback of IF is that it is largely depended on the skewness in the distribution of citations, the interdisciplinary differences, the fact that it takes into account the non-research articles, and editorial policies (Orbay et al., 2020, p. ii; Ali, 2021). The criteria used by Thomson Reuters to determine whether a journal is included or not is not disclosed to the public (Law & Leung, 2020). Other conceptual, technical, liability to manipulation, and misuse problems associated with IF are also mentioned (Bloch & Walter, 2001; Ali, 2021). Some researchers caution against basing journal evaluation solely on IF (Moed & Leeuwen, 1995).

As mentioned, the debatable nature of IF has led to a spirited dialogue in the scientific world in recent years. This has resulted, among other things, in the development of The Declaration on Research Assessment (DORA), which aims to improve the way researchers' work is evaluated (DORA, 2021). A modified version of the IF was proposed, one which expands its formulas for a better accuracy of the citations of articles published in a specified journal (Smarandache, 2020).

METHODOLOGY

The major objectives of the study were to trace the development of research on academic libraries in 2000-2019. The area of interest included articles published in journals registered in the Library, Information Science and Technology Abstracts (LISTA) database, which is available in the EBSCO resources. The database offers access to meta-data on the contents of more than 610 indexed core journals and more than 120 indexed selective and priority journals. Subject coverage includes e.g. librarianship, classification, bibliometrics, information management and more.

Publications were searched using the keywords "academic libraries" OR "university libraries". The chronological range was narrowed from 2000.01.01 to 2019.12.31. The resulting bibliographic database of articles (A) was N=16095 records. The data were then imported into an Excel sheet for management and analysis.

Due to the other aim of the study mentioned in the introduction, one related to tracing the interest of researchers in publishing in journals with IF, we have separated from the resulting database (A) those articles which were found in journals indexed by the Journal Citation Report (JCR) database. This is a database containing a number of indicators which characterise the importance of a given journal, e.g. Eigenfactor, Article Influence, but also IF, which is of interest to the authors of his paper. The choice of this database was also dictated by the fact that it contains all the most important journals, in which – in accordance with Bradford's law – a remarkable number of all valuable publications in the field under study are printed. Due to the main research objective, we decided not to use other sources, e.g. the SCOPUS database, which does not provide information on the IF of the journals, but takes into account an alternative indicator, CiteScore.

Database (B) (N1=3186) was created from database (A), after removing articles from journals without IF, not found in the JCR database in category "Information science & library science"). Database (C) (N2=12909) was also separated from database (A). It contains bibliographic data of articles which were left after the separation of those assigned to database (B) (cf. Table 1). In summary: database (A)=bases (B)+(C).

Table 1 Description and figures of databases (A), (B) & (C) used in the study

Database name	Description of the database	Number of articles
Database (A) =(B)+(C)	Bibliographic data of articles selected from LISTA using keywords "academic libraries" OR "university libraries"; chronological coverage from 2000.01.01. to 2019.12.31.	N0=16095 N0=N1+N2
Database (B) with IF	Database (A) after removing articles from journals without IF (not found in the JCR database in the category "Information science & library science")	N1=3186
Database (C) without IF	Database (A) after removing articles from journals with IF (found in the JCR database in the category "Information science & library science")	N2=12909

Source: own elaboration.

Exploring the development of research on academic libraries and the interest of authors in publishing in journals with IF, seven specific research questions were posed:

RESEARCH QUESTIONS

RQ1: What was the yearly distribution of articles, divided into articles published in journals with and without IF?

RQ2: What was the yearly distribution of journals with and without IF in which articles were published?

RQ3 In which years/decades were the most/fewest articles published in journals with and without IF?

RQ4: In which years/decades were the most/ fewest journals with and without IF selected to publish articles?

RQ5: What is the ratio of articles published in journals with and without IF?

RQ6: What is the ratio of journals with and without IF selected to publish articles?

RQ7: What percentage of "Information science & library science" journals from the JCR database are selected annually to publish articles on academic libraries?

Methods of research were: bibliometric analysis, comparative method.

DATA ANALYSIS AND INTERPRETATION

According to Eugene Garfield, journals with higher IF are perceived as more prestigious (Garfield, 2006, p. 92). In 2016, Vincent Larivière and his team, stated in their article: "Although the Journal Impact Factor (JIF) is widely acknowledged to be a poor indicator of the quality of individual papers, it is used routinely to evaluate research and researchers" (Larivière et al., 2016). Despite its debatable, controversial nature and the common knowledge of its inadequacies (Williams, 2007), IF is still taken into account by researchers when they select a journal for publication and by librarians to choose journals for purchase. The authors wondered whether the findings would confirm or deny that researchers' interest in publishing articles about academic libraries in journals with IF increased between 2000 and 2019.

Table 2 presents data on the number of articles on academic libraries and the journals selected for publication of those articles, divided into individual years of the period 2000-2019. Columns 2, 3, 5 & 7 refer to the number of journals, while columns 4, 6 & 8 refer to the number of articles.

The sum of articles in database (A) was N0=16095, in database (B) N1=3186 and in database (C) N2=12909.

Table 2: Number of journals and articles on academic libraries in databases (A), (B) & (C) selected from the LISTA database vs the number of LIS journals in the JCR database from 2000-2019

Year	No. of journals in the JCR database in the category "Information Science & Library Science" (with IF)	No. of journals in the (A) database	No. of articles in the (A) database	No. of journals in the (B) database with IF	No. of articles in the (B) database in journals with IF	No of journals in the (C) database without IF	No. of articles in the (C) database in journals without IF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2000	55	46	196	13	65	33	131
2001	55	46	200	9	44	37	156
2002	55	38	70	15	18	23	52
2003	55	77	364	6	37	71	327
2004	54	122	580	17	79	105	501
2005	55	151	733	15	111	136	622
2006	53	167	903	16	118	151	785
2007	56	169	859	15	104	154	755
2008	61	186	1040	22	188	164	852
2009	66	186	1051	24	161	162	890
2010	77	175	1116	24	146	151	970
2011	83	166	1082	27	199	139	883
2012	85	177	973	32	183	145	790
2013	84	165	1150	31	216	134	934
2014	85	148	989	36	251	112	738
2015	86	151	970	33	279	118	691
2016	85	136	950	30	244	106	706
2017	88	141	1035	29	229	112	806
2018	89	129	995	23	239	106	756
2019	87	132	839	29	275	103	564
Total	**x**	**x**	**N=16095**	**x**	**N1=3186**	**x**	**N2=12909**

Source: own elaboration.
Legend:
x – the filling of the cell was pointless
grey colour – number of journals
white colour – number of articles

In order to visualize the development of research on academic libraries, measured by the number of articles published on this topic, Figure 1 was developed, which shows the increase of publications on academic libraries in the chosen journals. The numbers of articles on academic libraries included in the databases were compared: (A) – blue colour, (B) – orange colour and (C) – grey colour, in chronological order, through the consecutive years of the period 2000-2019.

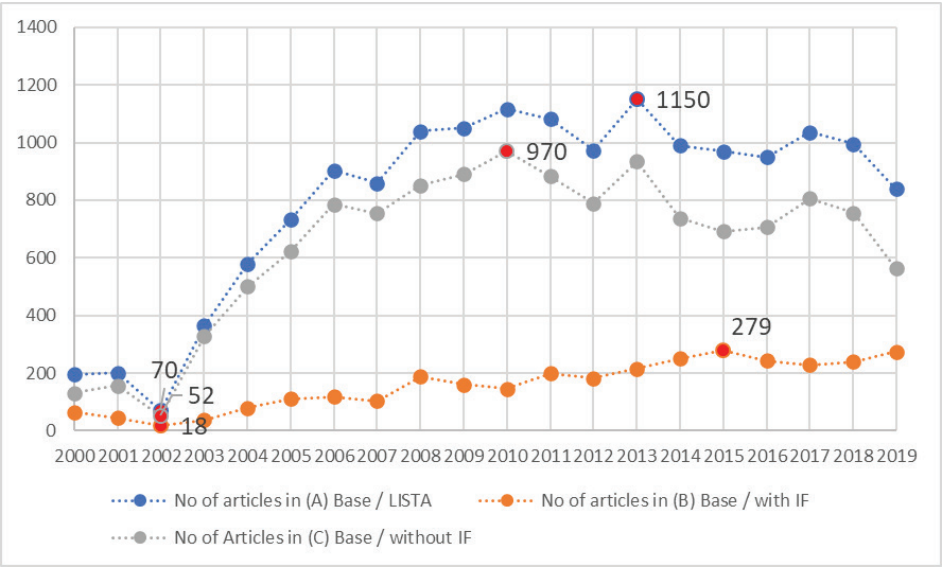

Fig. 1. No. of articles on academic libraries in (A), (B) & (C) databases: comparison (2000-2019)
Source: own studies.

In the first decade, the number of articles on academic libraries regardless of the place of publication (in journals with or without IF) grew decisively from 196 in 2000 to 1051 in 2009 (with a decrease in 2002 to 70; difference between the extrema: 981 articles). The number of articles in the second decade declined, rather unevenly, in leaps: from 1116 in 2010 to 839 in 2019 (difference: 277 articles). When analysing the data divided into databases (B) and (C), one can observe a small but steady increase within the two decades only for the former database (from 65 in 2000 to 275 articles in 2019). For those articles whose authors chose journals without IF for publication, the beginning of the second decade was a watershed. While at first definitely more and more articles were published each year in journals without IF (starting from 131 in 2000 to 890 in 2009), from 2011 onwards the number thereof started to decrease (to 564 in 2019).

In 2019, the number of articles published in journals without IF was still greater than the number of those in journals with the Impact Factor (ratio:

564 to 275), but the entire second decade is analysed, a clear downward trend can be seen starting from 2010 for the number of articles recorded in database (C), while an upward trend is observed for those recorded in database (B) (cf. figure 1). The difference in 2019 is 289 articles (564-275), whereas in 2010, when the difference was highest, it was 824 (970-146), which mean it decreased more than four times (824:189).

The analysis of database (A) demonstrated that 62.7% of publications on academic libraries were published between 2010 and 2019 (10099 papers for N0=16095), which is more than in the first decade. The same rate for database (B) was 71% (2261 for N1=3186), and for database (C) it was 60.7% (7838 for N2=12909). The data analysis shows that the interest in publishing articles in journals was higher in the second decade. The biggest change in this respect took place in the group of articles published in journals with IF

During the period under study, i.e. 2000-2019, the highest number of articles on academic libraries was recorded in the years: 2013 (1150) based on database (A); 2015 (279) based on database (B); 2010 (970) based on database (C), while the lowest number of such articles was recorded in 2002: (70) based on database (A), (18) based on database (B) and 52 based on database (C). Thus, the minimum values, regardless of the database, were all recorded in the first decade, while the maximum ones – in the second decade.

Figure 2 compares the numbers of journals that were selected for publication of articles on academic libraries included in databases (A) – blue, (B) – orange and (C) – grey, in the chronological order of consecutive years of the period 2000-2019.

The interest in the subject reflected in the number of journals with IF (database B) selected for publication can be considered as still growing (from 2004 onwards), albeit very slowly. However, for the journals recorded in database (A), it can be seen that from 2003 until 2008 the number of these journals increased (from 38 in 2002 to 186 in: 2008 and 2009) and then slowly decreased (from 175 in 2010 to 132 in 2019). At the same time, the number of journals with IF selected for publication remained more or less at the same level (between 24 and 36 titles).

If the period under study is divided into decades, in the case of the number of journals in which articles on academic libraries were published, based on database (A), it can be seen that between 2000 and 2009 the number of those journals increased strongly, from 46 in 2000 to 186 in 2009 (with a decrease in 2002 to 38; difference: 140 journals), while in the second decade, i.e. 2010-2019, numerous fluctuations were observed, but the number itself slowly decreased, from 175 in 2010 to 132 in 2019 (difference: 43 journals).

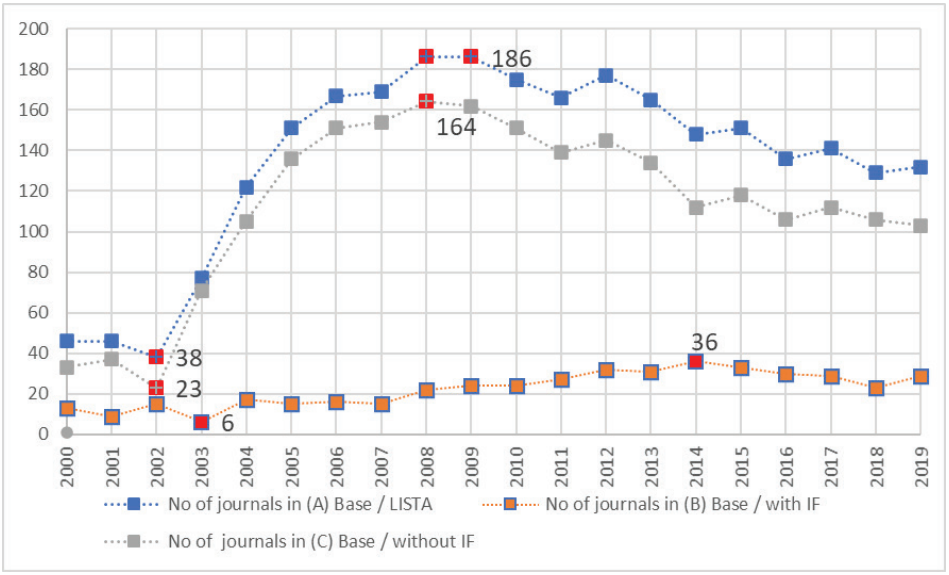

Fig. 2. No. of journals with articles on academic libraries in databases (A), (B) & (C) (2000-2019)
Source: own studies.

In the case of the journals only from database (B) with IF, it would be fair to say that in the first decade the number of journals increased slowly (from 13 in 2000 to 24 in 2009; difference: 11 journals). In the second decade, the number of journals increased from 24 to 36 titles until 2014, after which it started to decrease to 23 titles in 2018, to increase again to 29 titles in 2019. Throughout the whole 2000-2019 period, a slowly rising trend of choosing journals with IF for publication of articles on academic libraries can be seen.

The highest number of journals was recorded in 2008-2009 (186) on the basis of database (A), in 2014 (36) on the basis of database (B) and in 2008 (164) on the basis of database (C). The number of journals was the lowest in 2002 on the basis of databases (A) – 38 and (C) – 23, and in 2003 – 6 based on database (B). Thus, the minimum values on the basis of data from databases (A), (B) & (C) were all recorded in the first decade (just like in the case of articles), while the maximum values were recorded in the first decade for databases (A) & (C), and in the case of database (B) with IF – in the second decade.

The graphs of articles (Figure 1) and journals (Figure 2) are similar, which means that the increase in the number of articles generated the need to publish in new titles, and therefore new journals were chosen. A slight deviation occurred in the second decade in the case of the choice of journals with IF, because although the number of articles increased (cf. Table 2,

col. 6), the choice of journals remained more or less constant (mean: 29, based on data from Table 2, col. 5).

Although journals without IF are still more frequently chosen by authors for publication of articles on academic libraries (in 2019, 103 journals with IF versus 29 journals without IF; difference: 74), the interest in them is visibly declining (the largest difference was in 2008: 142, so it almost doubled in eleven years).

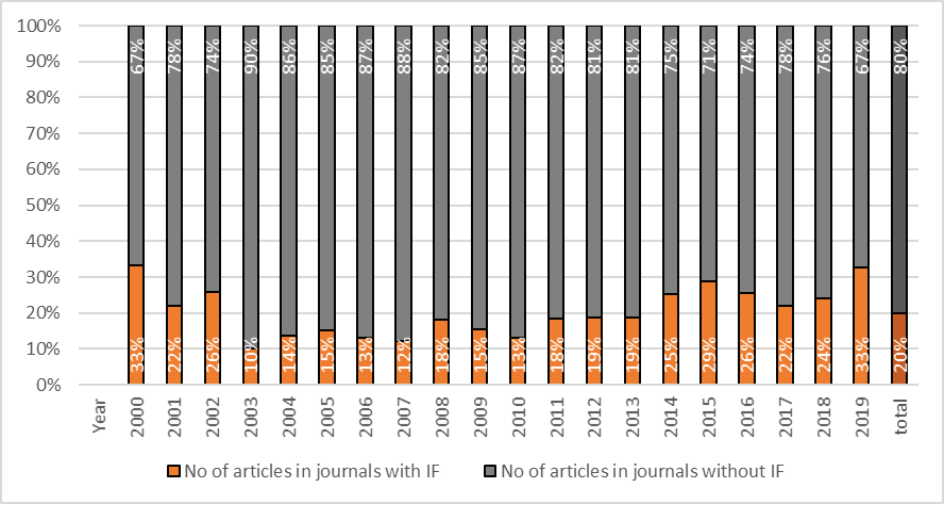

Fig. 3. Ratio of articles on academic libraries published in journals with and without IF (2000-2019) in database (A)

Source: own studies.

The ratio of articles published in journals with IF to those published in journals without IF during the period under study remained to be on average 20%:80% (Figure 3; last bar).

The smallest number of articles published in journals with IF was recorded in 2003 (10% as compared to 90% in journals without IF). Starting from that year, the number of articles published in journals with IF increased slowly. In 2019, there were 33% of those, which echoed the result from 2000. In the presented Figure 3, the second decade shows a small but steady increase in the number of articles published in journals with IF. Since 2014, on the other hand, the share of the number of articles in journals with IF in relation to those published in journals without IF was not less than 22%.

The lowest number of journals with IF chosen for publication of articles on academic libraries was in 2003 (8%, against 92% of journals without IF), despite the higher interest in this type of journals that was noticeable in the years 2000-2002 – the percentage did not drop below 20% (2001), and

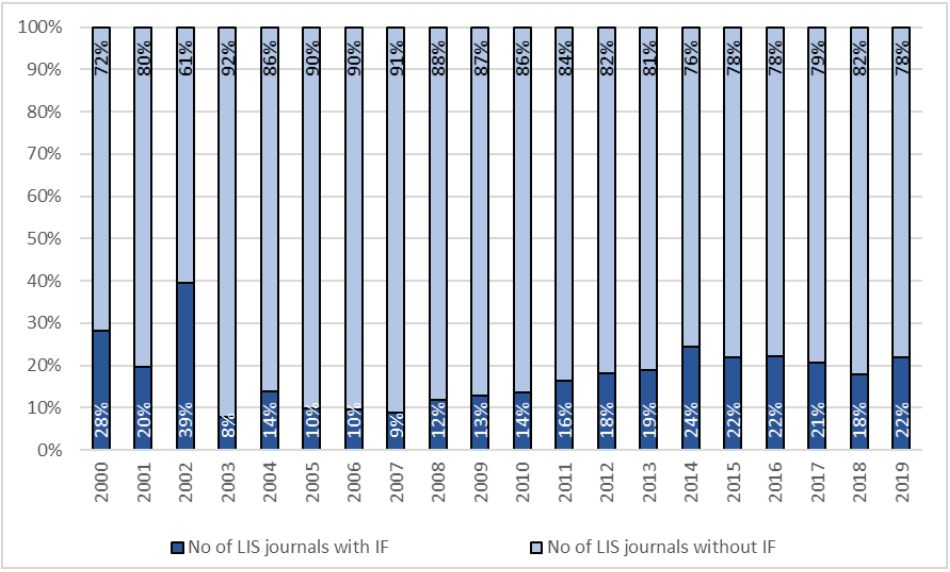

Fig. 4. Ratio of journals with IF and without IF publishing articles related to academic libraries (2000-2019) in database (A)

Source: own studies.

at its best it was 39% (2002). The difference between 2002 and 2003 was 11 journals (down from 15 in 2002 to 6 in 2003). In the period 2004-2009 the share of journals with IF did not exceed 14%. Since 2010, the number of journals with IF remained more or less constant, and its ratio to journals without IF was on average 20%. It reached the highest value in 2014 (24%), and the lowest value in 2010 (14%). In 2019, journals with IF accounted for 22% of all journal titles chosen for the publication of articles on academic libraries. Identical percentage values were recorded in 2015-2016.

Table 2 presents the numbers of journals in the field of "Information science & library science" found in the JCR database (cf. col. 2). During the period 2000-2019, a steady increase in the number of such journals can be observed, from 55 in 2000 to 87 in 2019, which means that the number of those journals increased by 32. The answer to the question about the percentage of JCR journals in the field of "Information science & library science" that are chosen every year for the publication of articles on academic libraries is illustrated in Figure 5. The percentage values vary between 11 and 42%. In the second decade, they did not fall below 26% (mean: 35%), while in the first decade the bottom value was 16% (mean: 27%). The analysis of the data demonstrates that between 2000 and 2019 about one-third of the journals registered by JCR were chosen for publication of articles on academic libraries.

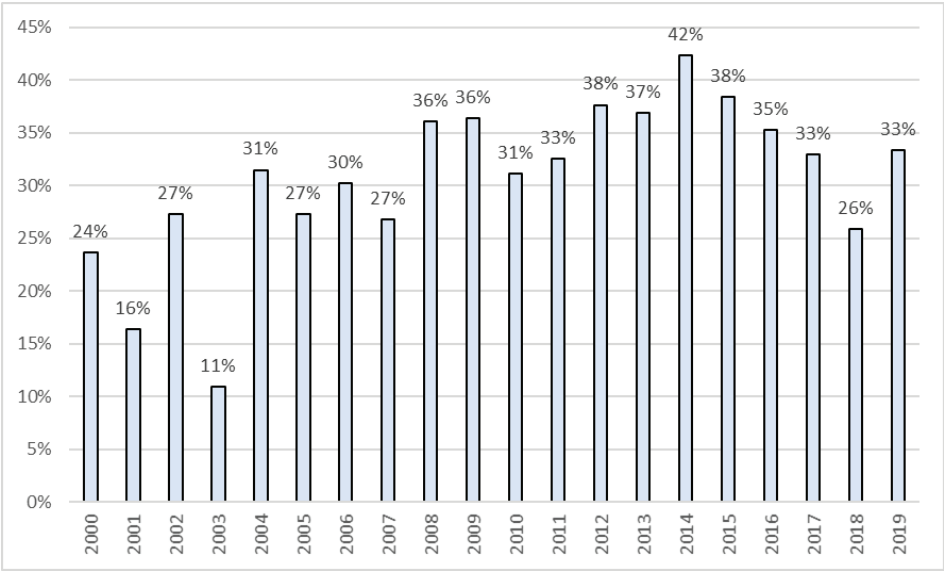

Fig. 5: Percentage of journals chosen for publication of articles on academic libraries in all "Information science & library science" journals from the JCR database (with IF), by year (2000-2019)

Source: own elaboration.

DISCUSSION

The analysis of the data on the number of publications on academic libraries from 2000 to 2019 shows that 2002 was a breakthrough year, in which a clear decrease was observed. When looking for reasons for this situation, it is important to consider how it may be related to the dot.com bubble (also known as the tech bubble, dot-com boom, IT bubble). Although there is no clear evidence of it, dot.com affected many spheres of activity of various institutions, including media institutions and libraries. It required them to reformulate their previous patterns of operation. Moreover, his phenomenon was possibly aggravated by the recession observed in the early 2000s, which affected both the United States and Europe. The crisis, which also affected libraries, was at the same time a prompt for them to take on new social roles. Academic libraries in particular had much to offer to both institutions and communities (Braunstein et al. 2012, pp. 175-191; Winston et al. 2005). Mark Winston and Susan Quinn's research findings on this topic were published in *New Library World* (2005). The authors answered the question about the impact of economic, political, technological and social changes, but also of the related crises, on the role of academic libraries in society between 2001 and 2005. Having analysed selected academic journals, they determined the extent to which the efforts of librarians and libraries influenced the resolution of these problems: "The research

results indicate increased focus on war and terrorism and large-scale economic and technological change, as related to information services, in the literature, during and after 2001, but less focus on information access, despite the impact of war and terrorism on library collections and resulting legal and policy decisions related to access to information" (Winston et al. 2005).

After 2002, a clear, rapid and systematic increase in the number of articles on academic libraries is observed (see Figure 1). The beginning of the 21st century saw the emergence and intensification of a number of phenomena that affect scholarly activity. Firstly, science became internationalised due to the spread of the Internet. Secondly, activities aimed at the internationalisation of the scientific output of individual countries were initiated in many regions of the world. An important factor influencing the change in the model of science has been, and still is, progressive globalisation, including globalisation of science and knowledge, as well as the increased importance and possibilities of teamwork, facilitating the transfer of intellectual capital. On the other hand, an interesting phenomenon is the decline of interest in the subject of academic libraries, observed since 2014. It is clearly related to the IF of the journals chosen for publication. If we take IF into account, it would turn out that the "decline" is seen only in the case of the number of articles and journals without IF, while in the area of journals with IF a slow increase is recorded both in the number of articles and journals chosen for publication. According to the authors of this paper, this may be related to the weakening motivation to publish by authors who are not scholars. To verify this hypothesis, additional research would need to be conducted. It would be necessary to determine the proportion of authors publishing in journals without IF representing non-academic and academic institutions. It would be worth asking the question about the affiliation of authors who decide to publish in journals, taking into account the IF of those journals or lack thereof. If academics predominated among the authors publishing in journals with IF, and among those who choose journals without IF there were more non-academics (e.g. librarians), there would be grounds to confirm the hypothesis posed.

The analysis of the data confirmed that authors of scholarly texts, including those about academic libraries, are interested in publishing in IF journals, which may indicate the existence of a kind of "IF culture". If the determined trends continue, and the trend lines intersect (cf. Figures 1 and 2), then at the end of the 2030s we will have a situation in which journals with IF will be chosen by authors publishing articles about academic libraries more often than those without IF.

Although the assessment of IF credibility is still debated, as evidenced by the numerous articles on the topic, it is most likely that authors of texts

realise that by publishing in journals with a high IF they will be better recognised and their work will be cited more frequently. This observation provides important guidance for authors planning to make decisions related to the management of their scientific output in the future. This issue needs additional research to verify what causes choosing periodicals by authors. The results may also be of interest to the owners and editors of academic journals, as they prove the continually important role of the IF in the market of academic journals. For the same reason, librarians responsible for purchasing and maintaining access to journal databases may also be interested in the results and use them to make appropriate purchasing decisions.

CONCLUSIONS/FINDINGS

The present study attempted to analyse the research productivity in the area of academic libraries research which is based on journals, and takes into account whether they are IF journals or non-IF ones, for the period 2000-2019.

The major findings of the study are as follows:

RQ1: What was the yearly distribution of articles, divided into articles published in journals with and without IF?

In the period 2000-2019, there is a clear increase in the number of publications on academic libraries. The number of articles published in journals with IF increased: from 65 in 2000 to 275 in 2019, while in journals without IF it increased until 2010, then decreased from 970 in 2010 to 564 in 2019.

The interest in the topic under study here was found to be definitely higher in the second decade of the studied period: 71% of articles in journals with IF compared to the first decade, and 60.7% in journals without IF.

RQ2 What was the yearly distribution of journals with and without IF in which articles were published?

Between 2000 and 2019, the number of journals, irrespective of their IF, in which articles on academic libraries were published grew from 46 in 2000 to 186 in 2008-2009 (with a decrease in 2002 to 38), while starting from 2010 it decreased (to 132 in 2019). In the first decade, for journals with IF the growth was moderate (from 13 titles in 2000 to 24 in 2009), while for those without IF it was intensive (from 131 in 2000 to 890 in 2010). In the second decade, i.e. 2010-2019, an increase in the number of journals with IF (from 24 in 2010 to 29 in 2019) was still observed, while in the case of journals without IF, a noticeable decrease was recorded (from 970 in 2010 to 564 in 2019).

RQ3 In which years/decades were the most/fewest articles published in journals with and without IF?

In the period under study, the highest number of articles on academic libraries was recorded in 2010 (970) for those published in journals without IF, and in 2015 for articles published in journals with IF (279); the lowest number was recorded in 2002, respectively: 52 and 18. The minimum values, regardless of the studied group of articles (published in journals with and without IF), were recorded in the first decade, while the maximum values – in the second decade.

RQ4: In which years/decades were the most/ fewest journals with and without IF selected to publish articles?

The highest number of journals without IF that were chosen to publish articles on academic libraries was recorded in 2008 (164), and in the case of those with IF – in 2014 (36); while the lowest number was recorded in 2002 (23) and in 2003 – 6 journals with IF. The minimum and maximum values regarding the number of journals without IF in which articles on academic libraries were published were recorded in the first decade, while for journals with IF the minimum value was recorded in the first decade and the maximum value – in the second decade.

RQ5: What is the ratio of articles published in journals with and without IF?

Between 2000 and 2019, more texts on academic libraries were published in journals without IF compared to those with IF. The ratio was 80:20. The difference in the last year under study, 2019, was 74, and the ratio was 67:33. The second decade shows a small but steady increase in the number of articles in IF journals. On the other hand, since 2014, the share of the number of articles published in journals with IF in relation to those in journals without IF was not less than 22%.

RQ6: What is the ratio of journals with and without IF selected to publish articles?

From the comparison of data concerning the journals chosen for publication, it can be concluded that those with IF enjoy moderate, but stable popularity, with a noticeable decrease in the interest of authors in publishing in journals without IF.

Since 2010, the number of journals with IF remained more or less constant, and its ratio to journals without IF was on average 20%. It reached its highest value in 2014 (24%) and its lowest value in 2010 (14%). In 2019, journals with IF accounted for 22% of all journal titles chosen to publish articles on academic libraries.

RQ7: What percentage of "Information science & library science" journals from the JCR database are selected annually to publish articles on academic libraries?

The data analysis shows that between 2000 and 2019 about one-third of the journals registered by JCR were selected for publication of articles on academic libraries.

The results of the analysis of the collected data confirm the earlier observations of the authors concerning the increasingly conscious choice of journals with a confirmed reputation as places of publication. Journals with IF may be deemed as such. Although the community's interest in publishing articles on academic libraries in journals, irrespective of IF, declined since 2014, the number of those published in journals with IF increased slowly throughout the whole 2000-2019 period. Despite the debatable nature of IF, this means that it is likely to influence the choice of a journal for publication of a scholarly article, and it is definitely the case if the article is on academic libraries.

FUTURE RESEARCH

The analysis results presented in this paper do not exhaust the subject and may provide the foundation for further research. Deeper, formal and content analysis of the collected data may be an interesting direction of study. It would be purposeful to determine which institutions (universities, libraries, library associations, information/documentation centres) are represented by the publishing authors, as well as whether their published articles are the result of individual or team work. Analysis of the keywords assigned to the articles might help to draw a map of the most frequently covered issues in the subject area of academic libraries and colleges.

It would also be interesting to verify whether the recorded trends of publishing articles on academic libraries are also observed in other LIS subject areas.

Moreover, further research is needed on the impact of journal's IF on the decisions scholars make when selecting journals to publish the results of their research work.

The interpretation of the results obtained can be of use for both theoreticians and practitioners in the planning of professional and scholarly activities and it may help to reach the most important journals and articles on academic libraries.

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ACADEMIC LIBRARY RESEARCH DEVELOPMENT IN THE CONTEXT OF IMPACT FACTOR OF JOURNALS: BIBLIOMETRIC ANALYSIS OF ARTICLES BASED ON THE LISTA DATABASE (2000-2019)

KEYWORDS: Bibliometric analysis. Academic libraries. Research trends. University libraries. College libraries.

ABSTRACT: **Thesis/Objective** – This paper presents the results of bibliometric analysis of the metadata of 16 095 articles on academic libraries published between 2000 and 2019, extracted from the Library, Information Science and Technology Abstracts (LISTA) database. The aim of the authors of this paper was to learn about the development of research on academic libraries and the researchers' choice of journals to publish in (journals with and without IF). **Research method** – The following research methods were used: bibliometric analysis, document analysis, literature review, comparison. **Results** –The study confirmed that, despite some doubts regarding the impact factor as such, the journals with IF enjoyed a growing interest of authors throughout the whole analyzed period, while the number of articles published in journals without IF clearly decreased.