

THE ANALYSIS OF POINTS ASSIGNED TO SCIENTIFIC JOURNALS IN POLISH HIGHER EDUCATION EVALUATION PROCESS, IN JUXTAPOSITION TO THE SCOPUS LIST OF JOURNALS IN THE HIGHEST PERCENTILES

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Purpose: The main purpose of the paper was to explore the differences between the top tier journal list published by Scopus and the number of points assigned to scientific journals on the list published by the Polish Ministry for Higher Education. Moreover, the paper aims to highlight the changes that were made on the list in comparison to its previous version.

Design/methodology/approach: The subject of the research was the ministerial list of journals that assigns evaluation points to them, and the Scopus list of top tier journals. The data from those lists was analyzed comparatively, statistically and visually (with data visualization methods) using the R programming language and RStudio Software.

Findings: The analysis uncovers disparities in journal prestige between the ministerial list and Scopus due to multidisciplinary variations, posing a choice for researchers between high-point but narrow-impact ministerial list journals and broader-impact, high CiteScore percentile ones. Disciplines differ in journal availability and top-tier participation, with biomedicine leading and humanities lagging. Recent updates to the list altered scores for many journals, sparking fairness and stability concerns. A proposed solution suggests linking points to CiteScore percentiles for stability and predictability.

Research limitations/implications: The Scopus data used in this paper concerned only journals that had a CiteScore Percentile value of 90 or higher. Future research could compare the complete Scopus database to the ministerial list and calculate the correlation between the percentile score to the assigned points.

Practical implications: The publication helps to identify imperfections within the evaluation algorithm of scientific papers, and could be used in the future for improvement of the process.

Social implications: The social implications are mainly limited to the academia workers and scientists. It might influence their perception of the evaluation process.

Originality/value: The paper is addressed to the academia community, and offers it to obtain a clearer view of the reality within it has to function. It is trying to explain the conditions of the journal evaluation process and how it impacts publishing possibilities in the period within which the current list is valid.

Keywords: academia employees evaluation, science evaluation, journal ranking, ministerial list of journals, Scopus.

Category of the paper: Research paper.

1. Introduction

The Regulation of the Minister of Science and Higher Education dated November 7, 2018, regarding the preparation of lists of scientific monograph publishers, scientific journals, and reviewed materials from international conferences (Dz.U. 2018, poz. 2152), introduced a significant change in the scoring of scientific journals, thereby impacting the evaluation process of science and university staff in Poland. The first list prepared under the new rules in 2019 also introduced a new scoring scale, ranging from 20 to 200 points, as opposed to the previous scale of 5 to 50 points divided into three categories (A, B, and C). The initial list from July 31, 2019, was subsequently revised and the new content was published on December 18, 2019. In less than 2 years, on February 9, 2021, the Minister of National Education published a new list, followed by a change and correction of this list on February 18, 2021. The most recent update of the list of point-rated journals was published on July 17, 2023, and was the currently applicable version at the time of preparing this article.

The new scoring system allowed the assignment of points to scientific journals based on a single selected indicator from those available in the Scopus database (SJR, CiteScore, SNIP), rather than solely relying on the Impact Factor, as was the case before (although all these indicators are interconnected, as each is calculated based on the citation count). In case a journal is not in the Scopus database, there are alternative databases available for the assessors (Science Citation Index Expanded, Social Sciences Citation Index, Arts & Humanities Citation Index, Emerging Sources Citation Index, and the European Reference Index for the Humanities and Social Sciences). For each discipline, the advisory team responsible for journal assessment can choose a different indicator than the other teams. The algorithm for assigning points is based on calculating the percentile value of the journal's scientific impact indicator in a given discipline, which assigns a specific number of points to the journal for each percentile range according to the values presented in Table 1.

Table 1.

The percentile ranges for of the chosen factor for assigning points on the MEiN list

Points	Percentile range	
	From	To
200	97	100
140	90	<97
100	75	<90
70	50	<75
40	25	<50
20	0	<25

Source: (Dz.U. 2018, poz. 2152).

According to the law, if a journal is multidisciplinary, the number of points assigned to it is the average of all the ratings it received in individual disciplines, rounded to the nearest points category, provided that the difference between the highest and lowest number of assigned points

does not exceed two threshold points. In cases where the point difference is greater, the Science Evaluation Committee conducts additional evaluation of the journal. The team responsible for choosing the impact indicator and calculating the point value for the journal can propose a change in the assigned point value of up to two threshold points, following the criteria described in §13 of the Law (Dz.U. 2018, poz. 2152).

One of the problems that the adopted method of evaluating scientific journals may generate is their interdisciplinary nature. A journal that ranks well in one discipline (A), if also assigned to other disciplines (B, C, and D) where it does not excel, will be evaluated on average. This situation may lead to researchers in discipline A losing the opportunity to achieve a high score for publications in a journal highly regarded in their discipline (which may cause a sense of injustice). On the other hand, representatives of disciplines B, C, and D will not be "tempted" by a high score journal for which there are better equivalents in their disciplines.

The Scopus database also has its own journal impact indicator within each discipline (the division is different from that in the ministerial list), which is the CiteScore Percentile. This is a straightforward indicator that assigns a given CiteScore result of a journal to the appropriate percentile value among other journals in that discipline. This indicator is used, among other things, in the Excellence Initiative – Research University (*Inicjatywa Doskonałości – Uczelnia Badawcza - IDUB*) program and when allocating funds within quality programs at universities (MPPŚ, 2022; AGH, no date; BUŁ, no date).

Discrepancies between the ministerial list and the Scopus database, as well as the differing significance of a given journal in various disciplines and the resulting averaging of point values, can lead to cases where journals of great importance in a particular discipline (both from a global perspective – Scopus, and a local one – within the national division) and therefore with significant influence in the IDUB program, will receive moderate or average point ratings. On the other hand, this may lead to cases where journals, despite having a low CiteScore Percentile result, will receive the highest point scores within a given discipline. Such cases might be seen as demotivating and lead to the feeling of injustice among authors who try to achieve global impact with their research and reach audiences through journals that are recognized as the best one internationally.

The ministerial list and the evaluation process has been subject to many debates among academia members (Kokowski, 2021; Drabek, Bemke-Świtilnik, 2020; Paiskowski, 2021) as well as in press and social media. One of the terms that evolved over the time was *pointosis* (pol.: “punktoza”), a pejorative term to describe the compulsive urge to gather more and more points by scientists, that results from them being assessed solely by this parameter (Obserwatorium Językowe UW, 2020) or as a publication strategy employed by academia workers that is set on dealing with point based evaluation of their work (Kulczycki, 2017). Kulikowski and Antipow (2020) argue even that *pointosis* has become a (negative) cultural value. Even though when the second iteration of the ministerial list was published, the ministry site announced the “*pointosis*” was over (MEiN, 2019), after few years the problem did not

disappear (Publicystyka, 2022). For the time of writing this paper the lastly published version of the ministerial list was still new (3 weeks), therefore sources with full reactions and interpretation of the list were very limited. Hower, Myśliwiec (2023), a polish scientist and a popular YouTube creator published a clip with his reaction to the new list, in which he discusses the main issues he (and his friends) found. Among the problems he mentions are highly unexpected increases in points in particular cases, mismatching disciplines assigned to journals and high scores for papers that do not require their texts to be written in English.

2. Materials and methods

In light of the presented observations in the introduction, the aim of this article was to determine the extent of disparities between the highest ratings assigned to scientific journals in the ministerial list and the highest CiteScore Percentile results in the Scopus database for the same entries within specific scientific disciplines. Additionally, the analysis examined the number of available publishers in specific disciplines, the distribution of points assigned to them, and the dynamics of point changes made in the third iteration of the list compared to its previous version.

The research model is based on a commonly employed approach (Dzwigoł, 2018; Dzwigoł, Trzeciak, 2023). Consequently, to fulfill the primary objective of the article, the following research questions were adopted:

RQ1. What is the distribution of points in relation to the Scopus top tier list?

RQ2. What is the distribution of points and top tier journals in scientific disciplines?

RQ3. What was the dynamics of changes in the scoring of scientific journals?

For the purpose of the analysis, data sets from three sources were downloaded and combined into a single data set. The first one was the list of points assigned to scientific journals published by the Polish Ministry of Education and Science on 17-07-2023 (MEiN, 2023). The second one was the previous version of the index from 21-12-2021 (MEiN, 2021). The last data set was a list of scientific journals that were assigned to the highest percentile (90 or higher, by CiteScore Percentile, in at least one of the assigned areas) in 2023 on Scopus, prepared and made available by the Silesian Technical University's Library (Biblioteka PŚ., 2023).

The combined lists created a data set that consisted of 34,351 observations. The data set contained all data from the newest ministerial list, as well as all records from the Scopus list (merged in cases when two records concerned the same journal). The dataset was supplemented with the number of points assigned to given journals in the previous ministerial list in cases where a journal was not removed from the newer version (it happened with 7 journals). The data was analyzed using the R language and RStudio environment software.

3. Analysis and results

3.1. Overall characteristics of the data set

As mentioned in the Materials and Methods section, there are 7 journals that were on the 2021 ministerial list but are no longer included in the current (2023) list, and the analyzed data set does not contain them. Table 2 shows the titles, number of points, and scientific disciplines of those journals.

Table 2.

List of journals that were dropped from the 2023 MEiN list

Title / (<i>English translation if the original title was in Polish</i>)	Points in 2021	Discipline/s
Hematologia (Hematology)	100	biomedical engineering, pharmaceutical sciences, medical sciences, health sciences, life sciences
Journal of Physical Education and Sport	70	biomedical engineering, physical culture sciences, health sciences, pedagogy
Pielęgniarstwo w opiece długoterminowej. Kwartalnik międzynarodowy / (<i>Nursing in long-term care. International Quarterly</i>)	20	medical science, health science
Prace Komisji Historii Nauki Polskiej Akademii Umiejętności / (<i>Works of the History of Science Commission of the Polish Academy of Arts and Sciences</i>)	40	history
Review of Comparative Law	70	legal sciences
Romanica Olomucensia	20	literary studies
Seksuologia Polska / (<i>Polish sexology</i>)	40	pharmaceutical sciences, medical sciences, health sciences, sociological sciences

Source: Authors own work, based on MEiN (2023) and MEiN (2021) lists.

As one can notice, the journals excluded from the new list do not pertain to a single discipline, nor were they highly rated (only one had 100 points assigned). In fact, the number of journals added to the ministerial list is over ten times higher (78), and all of the new positions are on the Scopus list.

More than a tenth (10.93%) of all the analyzed records are journals that are both on the current ministerial list and the Scopus top 10 percentile list. The majority (88.97%) of records in the data set concern journals that are on the ministerial list but not on the Scopus top 10 list, and 33 (0.1%) journals from Scopus were not included in the ministerial list (Table 3 shows the titles).

Table 3.

List of journals that are not on the 2023 MEiN list, but are on the top tier Scopus list.

Title	Percentile	Discipline (by Scopus)	Publisher
Advanced Powder Materials	99	Metals and Alloys	KeAi Communications Co.
Advances in Agronomy	99	Agronomy and Crop Science	Elsevier
Advances in Applied Mechanics	99	Computational Mechanics	Elsevier
Advances in Motivation Science	99	Psychology (miscellaneous)	Elsevier
Advances in Experimental Social Psychology	97	Social Psychology	Elsevier
Advances in Geophysics	97	Geophysics	Elsevier
Human-Machine Communication	97	Social Sciences (miscellaneous)	Communication and Social Robotics Labs
World-Systems Evolution and Global Futures	97	History	Springer Nature
Advances in Ecological Research	95	Ecology, Evolution, Behavior and Systematics	Elsevier
Fish Physiology	95	Animal Science and Zoology	Elsevier
Linguistic Approaches to Literature	95	Literature and Literary Theory	John Benjamins Publishing Company
New Comparisons in World Literature	95	Literature and Literary Theory	Springer Nature
Advances in Virus Research	94	Infectious Diseases	Elsevier
Advances in the Study of Behavior	94	Animal Science and Zoology	Elsevier
Brill Studies in Greek and Roman Epigraphy	94	Classics	Brill
PSU Research Review	94	Social Sciences (miscellaneous)	Emerald Publishing
Reviews in Mineralogy and Geochemistry	94	Geochemistry and Petrology	Mineralogical Society of America
Studies in Costume and Performance	94	Visual Arts and Performing Arts	Intellect Ltd.
eScience	94	Materials Chemistry	Elsevier
Advances in Food and Nutrition Research	93	Food Science	Elsevier
Advances in Insect Physiology	93	Insect Science	Elsevier
Alkaloids: Chemistry and Biology	93	Biochemistry	Elsevier
Investigating Medieval Philosophy	93	Religious Studies	Brill
SciPost Physics Lecture Notes	93	Statistical and Nonlinear Physics	SciPost Foundation
Advances in Entrepreneurship, Firm Emergence and Growth	92	Economics, Econometrics and Finance (miscellaneous)	
Nano Research Energy	92	Chemistry (miscellaneous)	Tsinghua University Press
Whiteness and Education	92	Cultural Studies	Taylor & Francis
Archeological Papers of the American Anthropological Association	91	Archeology (arts and humanities)	Wiley-Blackwell
Handbook of Experimental Pharmacology	91	General Pharmacology, Toxicology and Pharmaceutics	Springer Nature
Advances in Southeast Asian Studies	90	Cultural Studies	Society for South-East Asian Studies
Benjamins Translation Library	90	Literature and Literary Theory	John Benjamins Publishing Company
Medical sciences (Basel Switzerland)	90	General Medicine	NLM (Medline)
Progress in Medicinal Chemistry	90	Pharmacology	Elsevier

Source: Authors own work, based on MEiN (2023) and MEiN (2021) lists.

It is worth noting that most of the top-tier journals not included in the ministerial list are Elsevier titles, which one might assume is a renowned publisher. The reason for this might be the fact that many of those Scopus titles are actually book series rather than regular journals.

3.2. The distribution of points in relation to Scopus top tier list.

From the algorithm used to assess journals on the MEiN list results from one factor that is related to citations of the journal, similar like the CiteScore Percentile on Scopus. Figure 1 shows a graph of the points' distribution in the respective top-tier categories (the categories are exclusive, meaning that the Top 10 category does not include journals classified as Top 5 or Top 1 – thus, the percentile ranges between 90th and 94th, and the Top 5 category does not include journals from the 99th percentile).

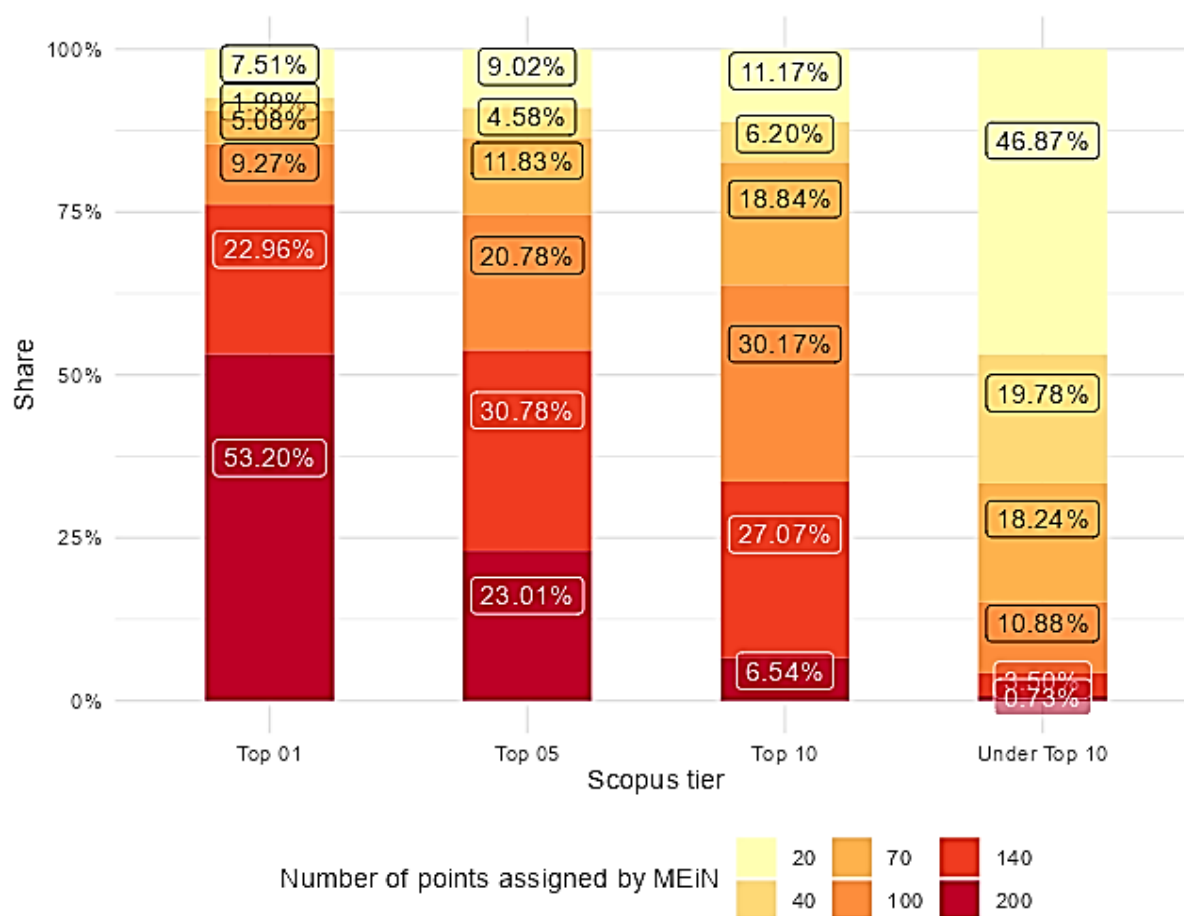


Figure 1. The share of points in each Scopus journal tier.

Source: Authors own work, based on MEiN (2023) and Scopus top tier journals list (Biblioteka PŚ., 2023).

The results show that over half (53.2%) of the highest (99th) percentile journals from Scopus were assigned 200 points. However, it is somewhat surprising that some journals in this category were given less than 100 points, and 7.51% (equivalent to 34 journals) received only 20 points. It is also concerning that nearly two-thirds (66.39%) of journals in the range between the 90th and 94th percentile (Top 10) were assigned 100 points or fewer.

3.3. The number of pointed and top tier journals in scientific disciplines

The new ministerial list distinguishes 53 scientific disciplines (compared to the previous list, which counted 44 of them), and the number of journals assigned points for each of them varies significantly. The majority of journals from the ministerial list are multidisciplinary. The mean number of disciplines covered by a journal is 21.65. The median is 19, the 1st quartile is 10, and the 3rd quartile is 28. The highest number of disciplines for a journal was 51, noted in one case, while the lowest value of this variable was 1, occurring in 2642 cases. Figure 2 shows the number of journals assigned points available in each discipline, divided into individual point categories.

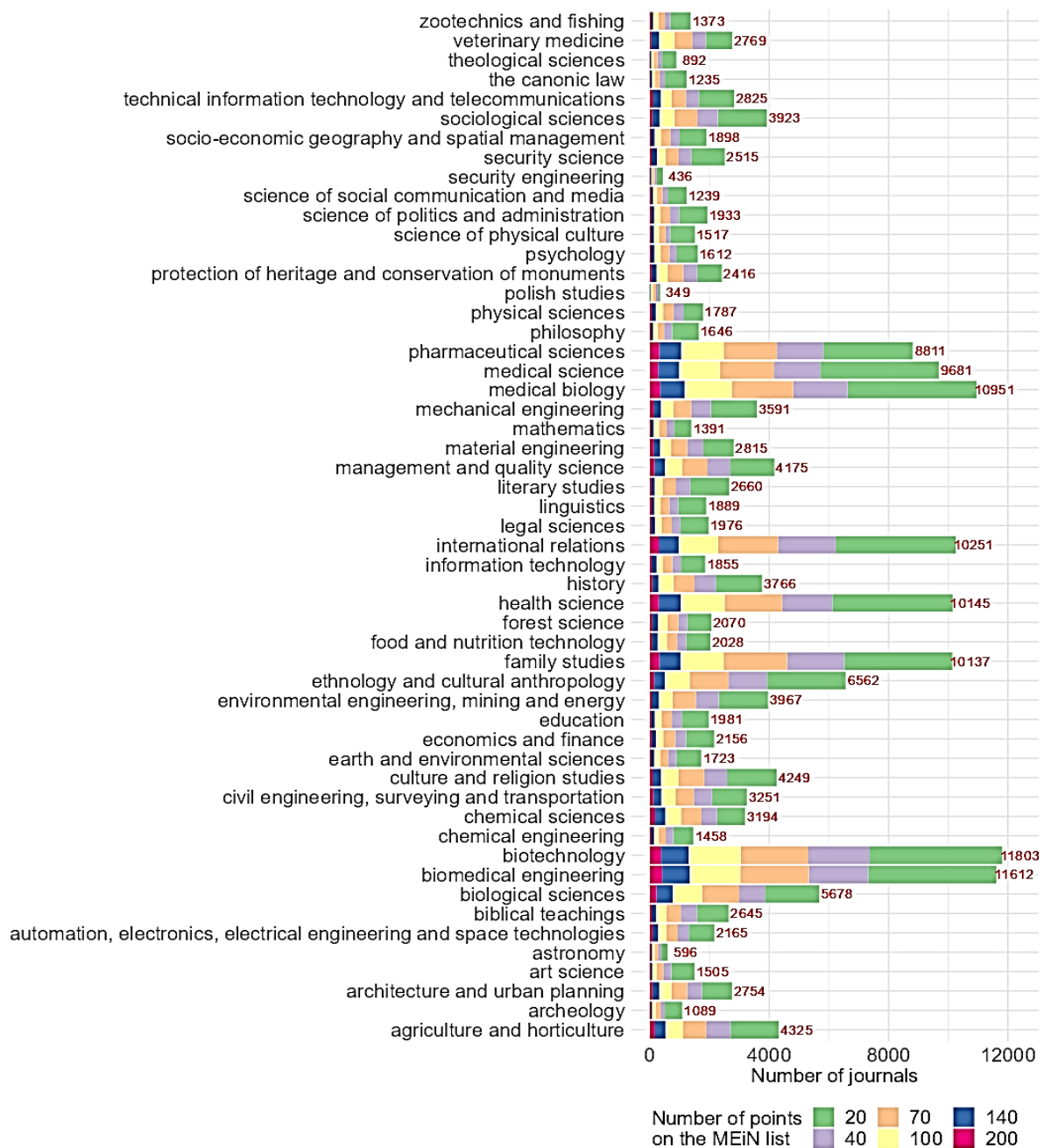


Figure 2. The number of journals available in each discipline with given number of points.

Source: Authors own work, based on MEiN (2023).

From the graph, it is clear that disciplines in the field of medical and health sciences (including pharmacological studies, medical studies, medical biology, health science, biotechnology, and biomedical engineering) have the widest spectrum of available journals with assigned points for scientists to publish in. This might indicate that disciplines from this fields are currently among the fastest developing ones and are strongly emphasized by publishers. Interestingly, two other disciplines, international relations and family studies, have nearly the same number of available journals as the medical ones. It is worth noting that Polish studies is the discipline with the fewest number of journals with assigned points available.

Although disciplines have varying ranges of journals to choose from, the proportion of journals with a given number of points also varies within them. To visualize this more clearly, the boxplot graph in Figure 3 shows the distribution of points within disciplines.

As shown in Figure 3, the differences between disciplines lie in the 3rd quartile – for the majority of them, the value of this statistic equals 70, meaning that 75% of journals in that discipline do not exceed this threshold. The 1st quartile is equal to 20 in each discipline, except for Polish studies, for which it equals 40. This implies that Polish studies is the only discipline where 75% of journals were assigned at least that many points. The mean number of points for Polish studies is also the second highest (66.7) and least varying (standard deviation = 34.53), surpassed only by chemical studies (69.91).

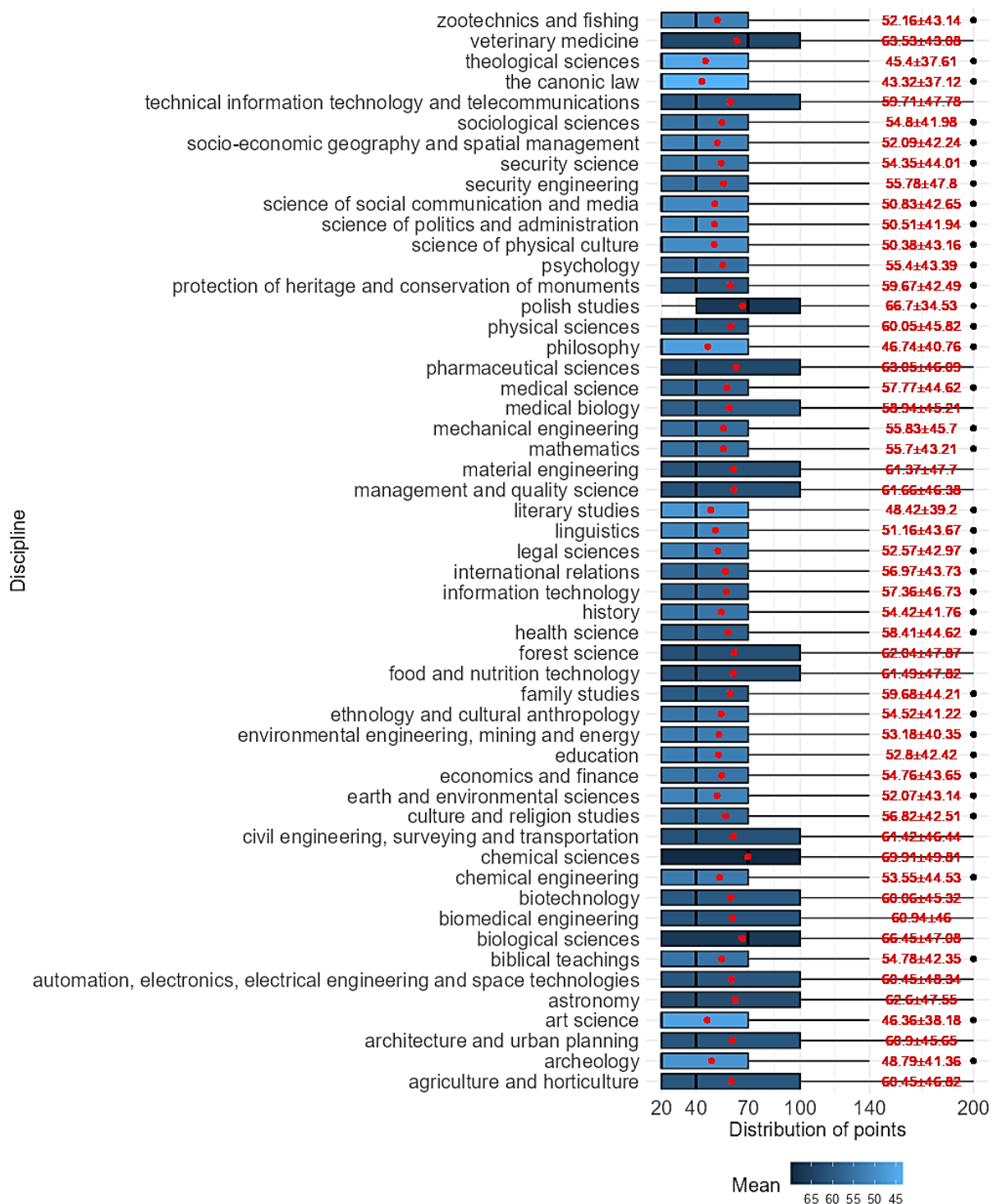


Figure 3. The distribution of points assigned to journals in listed disciplines, and the average number of points for each discipline.

Source: Authors own work, based on MEiN (2023).

While the graph in Figure 2 shows the scale of available journals, it does not clearly indicate the share of journals with 200 points in each discipline. Therefore, Table 4 contains the percentage share of journals assigned 200 points in each discipline, along with the share of top-tier (90th percentile or higher on Scopus) journals for each discipline and the share of 200-point journals on the top-tier list.

Table 4.

The share of 200 point journals, top tier journals, and 200 pts journals in top tier in each discipline

Discipline	200 pts share	Top tier share	Share of 200 pts journals in top tier	Discipline	200 pts share	Top tier share	Share of 200 pts journals in top tier
agriculture and horticulture	3,84%	0,44%	91,57%	linguistics	3,23%	0,07%	57,38%
archeology	2,30%	0,03%	56,00%	literary studies	1,92%	0,04%	25,49%
architecture and urban planning	3,27%	0,20%	86,67%	management and quality science	3,71%	0,31%	83,23%
art science	1,59%	0,02%	25,00%	material engineering	4,58%	0,30%	88,37%
astronomy	4,19%	0,09%	100,00%	mathematics	2,59%	0,04%	58,33%
automation, electronics, electrical engineering and space technologies	4,43%	0,24%	89,58%	mechanical engineering	3,70%	0,29%	85,71%
biblical teachings	2,65%	0,09%	61,43%	medical biology	3,15%	0,86%	90,14%
biological sciences	3,93%	0,61%	92,83%	medical science	2,88%	0,68%	89,25%
biomedical engineering	3,52%	0,98%	89,00%	pharmaceutical sciences	3,61%	0,77%	89,31%
biotechnology	3,19%	0,91%	89,36%	philosophy	2,25%	0,04%	59,46%
chemical engineering	3,22%	0,09%	80,85%	physical sciences	3,69%	0,16%	89,39%
chemical sciences	5,42%	0,47%	92,49%	polish studies	0,57%	0%	0,00%
civil engineering, surveying and transportation	3,75%	0,28%	87,70%	protection of heritage and conservation of monuments	2,40%	0,07%	60,34%
culture and religion studies	2,35%	0,13%	65,00%	psychology	2,23%	0,07%	80,56%
earth and environmental sciences	2,50%	0,08%	81,40%	science of physical culture	2,11%	0,07%	84,38%
economics and finance	2,74%	0,09%	71,19%	science of politics and administration	2,43%	0,07%	72,34%
education	2,42%	0,09%	81,25%	science of social communication and media	2,10%	0,04%	76,92%
environmental engineering, mining and energy	1,84%	0,14%	80,82%	security engineering	4,13%	0,04%	88,89%
ethnology and cultural anthropology	2,24%	0,20%	66,67%	security science	2,82%	0,11%	70,42%
family studies	3,11%	0,49%	72,38%	socio-economic geography and spatial management	2,21%	0,08%	80,95%
food and nutrition technology	3,80%	0,17%	87,01%	sociological sciences	2,22%	0,15%	78,16%
forest science	3,86%	0,23%	93,75%	technical information technology and telecommunications	3,79%	0,24%	86,92%
health science	2,92%	0,72%	89,19%	the canonic law	1,21%	0,02%	66,67%
history	2,36%	0,11%	58,43%	theological sciences	1,35%	0,01%	41,67%
information technology	3,34%	0,13%	85,48%	veterinary medicine	1,88%	0,09%	75,00%
international relations	2,96%	0,47%	72,94%	zootechnics and fishing	2,48%	0,05%	70,59%
legal sciences	2,33%	0,06%	58,70%				

Source: Authors own work, based on MEiN (2023) and MEiN (2021) lists.

Polish studies seem to be in the least favorable position, with the lowest share (0.57%) of journals assigned 200 points, and no top-tier publications available. However, it is understandable that the top-tier list contains journals that make significant contributions to the global state of science, whereas Polish studies are more relevant locally in Poland. Similar low shares can be observed in literary studies, legal studies (which again focus on the local legislation of the country), theological sciences, and the discipline of canonic law.

The highest share of journals assigned 200 points occurs in chemical studies (5.42%), followed by material engineering (4.58%), automation, electronics, electrical engineering and space technologies (4.43%), and astronomy (4.19%). In none of the disciplines does the share of journals on the Scopus top-tier list exceed 1%. The highest value can be observed for biomedical engineering (0.98%) and biotechnology (0.91%). Management and quality science have a relatively high share of journals assigned 200 points (3.71%), but only 0.31% of all journals assigned to this discipline are in the top 10 Scopus percentiles.

One might expect that if a journal was assigned 200 points, it is also an internationally top scoring journal. In most cases, this statement is true to some extent. However, as one can read from the fourth column of Table 4, not all 200-point journals are in the top-tier list. Only in astronomy are all of the highest pointed journals also in the top 10 highest percentiles on Scopus. Disciplines related to the Polish language and culture, as well as religion, note the lowest scores in this regard. This might suggest that they received additional points not based on their parametric scores but rather based on their locally perceived importance by the ministry.

In management and quality science, 83.23% of journals assigned 200 points by the ministry are also on the Scopus top-tier list. This might also lead to a reversed question – are there some journals on the Scopus top-tier list that received less than 100 points, suggesting that they are undervalued? The answer is yes: there are 1097 journals on the ministry list that have 70 or fewer points but are on the top-tier list. For management and quality science, there are 225 such cases (56 with 20 points, 44 with 40 points, and 125 with 70 points).

3.4. The dynamics of journal grade change

The new ministerial list changed the scores of 3070 journals (including the change from not having any points), with the most frequent difference (1809 cases) being 20 points. The majority of this number comprises journals that were not on the previous list and were added in 2023. The second most common difference was a change by 30 points, indicating that those journals advanced either from 70 to 100 points or from 40 to 70 points. Detailed data is presented in Table 5.

Table 5.

The number of journals with given score change on the 2023 list compared to the previous one from 2021

Difference in points	Number of journals with given difference	Number of journals that were not on the 2021 list	Difference in points	Number of journals with given difference	Number of journals that were not on the 2021 list
-180	2	-	60	100	-
-120	8	-	70	78	37
-80	25	-	80	36	-
-50	50	-	100	58	15
-20	75	-	120	19	-
0	31248	-	130	18	-
20	1809	1585	140	8	8
30	483	-	160	4	-
40	231	90	180	6	-
50	48	-	200	12	12

Source: Authors own work, based on MEiN (2023) and MEiN (2021) lists.

The data in Table 5 clearly shows that for the majority of journals, the number of assigned points was not changed in comparison to the previous list. One can also observe that there were more point upgrades than downgrades on the new ministerial list, in cases where changes occurred. The mean change in points for journals that had a change in assigned points was an increase of 33.03 points. The most notable changes include 10 cases in which journals were upgraded from 20 or 40 points to 200 points, as well as 10 downgrades from 200 and 140 points to 20 points. Table 6 presents the titles of those journals

Table 6.

The journals with highest (positive and negative) difference in points

Title	Points 2023	Points 2021	Difference	issn	eissn
Automatyka, Elektryka, Zakłócenia	200	20	180	2082-4149	
Chemistry-Didactics-Ecology-Metrology	200	20	180	1640-9019	2084-4506
Clinical and Experimental Hepatology	200	20	180	2392-1099	2449-8238
Journal of Agricultural Sciences	200	20	180	1391-9318	2386-1363
Nature Food	200	20	180		2662-1355
Żywność. Nauka. Technologia. Jakość.	200	20	180	2451-0769	2451-0777
Disaster and Emergency Medicine Journal	200	40	160	2451-4691	2543-5957
Ecological Chemistry and Engineering S - Chemia I Inżynieria Ekologiczna S	200	40	160	1898-6196	1898-6196
E-Informatica Software Engineering Journal	200	40	160	1897-7979	2084-4840
Rocznik Teologii Katolickiej	200	40	160	1644-8855	
Journal Of Abnormal Psychology	20	140	-120	0021-843X	1939-1846
Wiley Interdisciplinary Reviews- Developmental Biology	20	140	-120	1759-7684	1759-7692
American Journal Of Physical Anthropology	20	140	-120	0002-9483	1096-8644
Antioch Review	20	140	-120	0003-5769	2326-9707
English Literature In Transition 1880-1920	20	140	-120	0013-8339	1559-2715
Esaim-Mathematical Modelling And Numerical Analysis-Modelisation Mathematique Et Analyse Numerique	20	140	-120	0764-583X	1290-3841

Cont. table 6.

International Journal of Environmental Research and Public Health	20	140	-120	1660-4601	1660-4601
Materials Science & Engineering C-Materials for Biological Applications	20	140	-120	0928-4931	1873-0191
Biotechnology for Biofuels	20	200	-180	1754-6834	1754-6834
Future Of Children	20	200	-180	1054-8289	1550-1558

Source: Authors own work, based on MEiN (2023) and MEiN (2021) lists.

Some interesting increases in points assigned by the ministry concern three journals with Polish titles: (1) 'Automatyka, Elektryka, Zakłócenia,' (2) 'Żywność. Nauka. Technologia. Jakość.,' and (3) 'Rocznik Teologii Katolickiej.' The first two journals accept papers in both Polish and English, with 'Automatyka, Elektryka, Zakłócenia' being a technical and scientific magazine. While the author does not attempt to undermine the national scientific value of these journals, as they are not within the field of the author's expertise, it's worth noting that the highest possible grades might be expected to be reserved for journals dedicated exclusively to international audiences and addressing issues of global significance. Among the top 10 journals with the highest positive changes in points, as mentioned in Table 6, the majority (8 out of 10) are run by Polish publishers. The two exceptions are (1) 'Nature Food' and (2) 'Journal of Agricultural Sciences.' Only one journal from Table 6 is assigned to the management and quality discipline - the 'International Journal of Environmental Research and Public Health' (MDPI).

The mean change in points assigned to all journals overall is equal to 1.34 points. Of course, this score is relatively low because points were not changed for most of the journals (91.05%). When calculating the mean change in points among journals that underwent a change, the mean value equals 31.3. Figure 4 presents a column chart illustrating the average point gain for journals assigned to specific scientific disciplines. The chart includes data for all journals within each discipline, as well as exclusively for those journals that experienced a change in their scores.

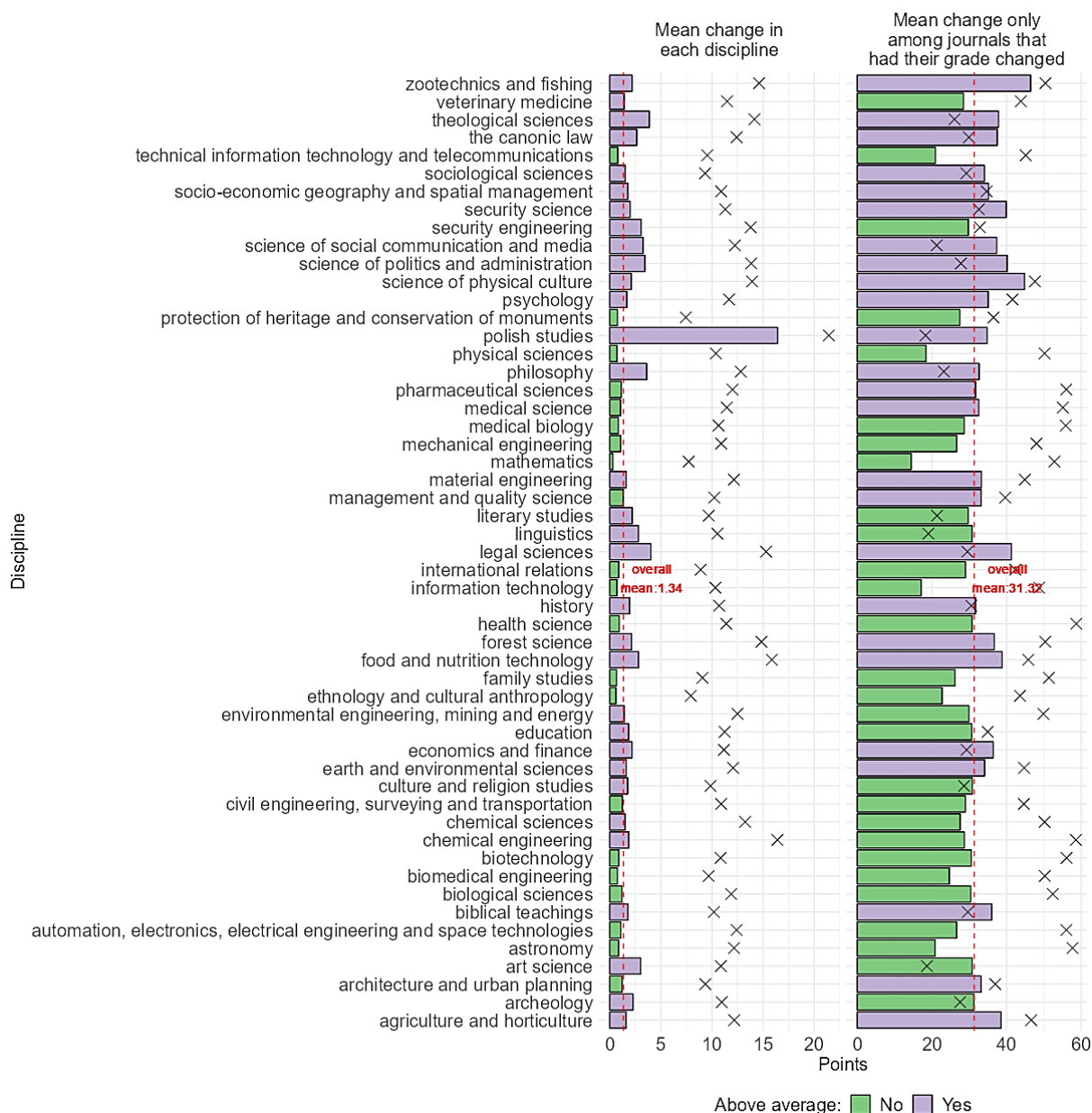


Figure 4. The overall average change of points (left) and the mean of change (right) in each discipline (x marks the standard deviation value).

Source: Authors own work, based on MEiN (2023) and MEiN (2021).

When it comes to the scale of the overall change of points within given scientific disciplines, Polish studies have undergone the most notable change. The mean number of points assigned to journals from this discipline has risen by 16.4 points. The second and third highest scores in this matter were significantly lower but still noticeably above the general average of 1.34. The disciplines in this regard are philosophy (3.61 average gain) and theological science (3.86). The lowest average gain of points was noted for mathematics (0.30), ethnology and cultural anthropology (0.60), and family studies (0.65).

Although Polish studies had the highest average growth of points, when considering only journals that had their points changed within a discipline, then the discipline of zootechnics and fishing had the highest average growth of points (46.4), followed by the science of physical

culture (44.8), and legal sciences (41.3). From this perspective, mathematics again gained the least (14.4), as well as information technology (17.1) and physical sciences (17.1).

4. Discussion and summary

As a result of the analysis, answers to the research questions were obtained.

RQ1. What is the distribution of points in relation to the Scopus top tier list?

Due to disparities between disciplines on both Scopus and the ministerial list, as well as variations in the significance of multidisciplinary journals within different fields (which subsequently influences point allocation), the significance and prestige (interpreted as the number of assigned points and CiteScore percentile) of individual journals often significantly differ between the ministerial list and Scopus. Such inconsistency frequently places researchers in the dilemma of choosing where to publish their research results. On one hand, they must maximize points for periodic evaluations and research assessment (which involves selecting highly-pointed journals on the ministerial list), while on the other hand, they may have to forego high point allocation in favor of journals with high CiteScore percentiles, aiming to enhance their parameters (e.g., h-index), reach a global audience, or contribute to the goals of the Excellence Initiative – Research University program.

RQ2. What is the distribution of points and top tier journals in scientific disciplines?

Significant disparities arise between disciplines in terms of the number of journals available for publication. In this regard, fields related to biotechnology and medicine enjoy the widest spectrum of publishing options, often surpassing the number of available journals in other disciplines. A similar variation can be observed regarding the participation of journals with the highest possible point allocation and those at the top of the CiteScore percentile list in Scopus. Humanities and theological disciplines exhibit the smallest presence in this realm. Therefore, basing on the distribution of points in each top tier category, one might say that the number of points assigned to scientific journals on the MEiN list is not tightly related to the CiteScore Percentiles.

RQ3. What was the dynamics of changes in the scoring of scientific journals?

The latest list introduced 1261 new journals to the index and revised the scores of 1809 journals (meaning that every twentieth journal had its score altered). The majority of changes involved point increases, with only a minor number (160) of journals experiencing score reductions. While many cases saw modest increases (by 20 points), there were instances of substantial changes (by 160 or even 180 points). On one hand, a substantial increase might be deemed unfair to representatives of disciplines without such alterations, while on the other hand, concerns might arise that during the preparation and review process, a journal could undergo a drastic downgrade, endangering authors by not accumulating sufficient points for their evaluation, thus intensifying the "*pointosis*" effect.

Addressing these concerns does not have straightforward or universal solutions. However, a potential starting point could involve tightening the connection between assigned points and the CiteScore Percentile. For example, the points assigned to a journal based on the percentile calculated by the evaluation committee (after taking into account also the importance of a journal on the local arena) could be compared to the points it would receive if the CiteScore Percentile were applied instead. If the difference would exceed a two-level threshold, the points could be limited to that level (similar to the processes when the discipline committee pleads for a change during the journal evaluation process). A similar limit could also be considered for increasing or decreasing the assigned points to prevent any journal from rising or dropping by more than two threshold points. This approach would introduce predictability and stability to the academic environment, constituting a minor yet impactful step toward mitigating the "pointosis" issue.

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