

Bibliometric Analysis of the European Journal of Information Systems (EJIS) 2019-2023: A study

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Abstract: This investigation provides a comprehensive statistical analysis of the *European Journal of Information Systems* (EJIS), published by Taylor & Francis over the five years from 2019 to 2023. The analysis delves into multiple facets of the journal's publication trends, including the annual distribution of articles, contributions by authors, page-length patterns, the geographical distribution of author affiliations, institutional representation, and author rankings depending upon the sum of publications. Additionally, it examines the thematic focus of the articles, the most highly cited works, and those with the highest number of references. Between the five years, the journal outcome of 211 articles, with in highest output recorded in 2023 (57 articles). Dual-authored papers emerged as the most common form of collaboration, accounting for 30.33% of all contributions. In terms of document length, articles exceeding 20 pages were predominant, representing 38.86% of the total. While most articles were authored by individuals affiliated with academic institutions, a notable trend in 2023 highlighted a shift toward contributions from other sectors. Geographically, authors from the United States led in contributions, comprising 25.76% of the total. Content analysis revealed that empirical research articles dominated the journal's output, making up 37.91% of the publications. These findings illuminate the growth trajectory and evolving focus of *EJIS* over the analyzed timeframe, shedding light on trends in authorship patterns, institutional contributions, and thematic priorities. This bibliometric evaluation offers valuable insights for researchers, editors, and policymakers aiming to understand the journal's academic influence and strategic direction.

Keywords: Bibliometrics, Information systems, Scattering of Authors, highest cited objects, Operational Research Society, EJIS.

Introduction

The term "bibliometrics" is a derivative of two Greek words: "biblio" and "metrics." Where "Biblio" originates from the term "biblion," which refers to "book" or "scroll," while "metrics" comes from the word "metron," which means "measurement."

Therefore, joining these two words results in “bibliometrics,” which refers to the quantitative measurement and analysis of books, scholarly literature, and other information sources.

It is a method for identifying and measuring the various aspects of scholarly literature and information sources. It is primarily concerned with evaluating the impact, influence, and visibility of academic publications, authors, journals, and research fields by analyzing citation patterns, co-authorship networks, and publication trends.

About the EJIS.

It is a notable academic journal in the field of Information Systems (IS). It was launched in 1991 and propelled by Palgrave Macmillan, a part of the Springer Nature group. The EJIS is a bimonthly group of expert-maintained methodical periodicals infolding the theory and practice of information systems and is an official journal of the ORS, it was published by the Taylor and Francis group.

It offers a distinguishing European perception of the theory and practice of IS for universal patrons. It encourages top-notch articles that critically view information technology – its special effectson progress, enactment, approach, management, and procedure. Benefiting from a global platform enhances its visibility and accessibility to researchers and practitioners worldwide. The journal offers both traditional and open-access publishing options, making its research widely accessible and allowing it to contribute meaningfully to the field of information systems.

Notable Topics and Influence in Information Systems

EJIS's influence spans several foremost IS research areas, including:

- Digital revolution and innovation
- IS scheme and management
- Confidentiality and data protection
- Socio-technical systems
- The role of IS in sustainability.

Review of Literature:

As to the research conducted by **Idrees and Anwar (2013)**, the Journal "Library Philosophy and Practice" underwent bibliometric analysis from 2006 to 2012. The purpose of the study is to investigate the productivity of research presentations in LIS research publications.

Rajeev & Joseph (2016) examine several article formats that were published between 2007 and 2013 in the Malaysian Journal of Library and Information Science (MJLIS). The study assesses the journal's growth pattern in research productivity. The study includes the number of citations, institutional affiliation, and article length. According to this survey, with 21 articles, 2011 was the most productive year.

Anyaok and Oknokow's (2018) bibliometric examination of the Library and Information Science Digest. Nine volumes and 82 articles from 2007 to 2016 were included in the analysis. Additionally, the investigation found that most of the authors had university affiliations.

By analyzing the bibliometric analysis of 1402 articles published between 1998 and 2018, **Kannan & Thanuskodi (2019)** want to portray a bibliometric exploration of the Journal LPP.

381 research communications were released as a result of **Panda, Pandya, and Cholin's (2019)** analysis of the many patterns of publications published in the journal Library and Information Science Research between 2008 and 2017. This journal received the greatest number of articles and the average number of authors per issue.

According to **Sahu and Parabhoi's (2020)** analysis of research papers submitted by both academics and working professionals in the libraries' journal Library and Information Science, from 2014 to 2018, a total of 1357 documents were found to be indexed in the SCOPUS database. Most of the publications (342) were published in 2018, according to the survey.

Analysis of 27 years' worth of bibliometric data from the Sustainable Development Journal is the goal of Farrukh, et al. (2020). 874 publications showed multi-fold growth, from 22 pieces in 1993 to 121 articles by 2019, according to the research.

Between 2011 and 2020, **Dhana Raju Veeramallu and Rajeev Vemulapalli (2021)** look at several publishing trends in the Journal of Documentation. The distribution of papers by page, authors' institutional affiliation, citation distribution, document category, and article distribution by content type are all analysed in this study. The survey primarily discovered that the greatest number of published articles had a page count above 20.

Siddique, et al. (2021) examined 62 years of research conducted between 1957 and 2018 on the bibliometric analysis of four major databases that support the advancement of library and information science in Pakistan: Web of Science, SCOPUS, Library & Information Science Abstracts, and Library Information Science & Technology Abstracts. According to the investigation, the University of Punjab's Department of Information Management was a notable contributor to the literature on LIS.

Between 2011 and 2020, **Dhana Raju Veeramallu and Rajeev Vemulapalli (2022)** examined the patterns of article dissemination from the Journal of Librarianship and Information Science. Presented to evaluate the development trajectory of the research articles published in the journal are the study's findings. Four hundred and ninety-eight pieces were published in total, with the greatest amount written in 2020. Additionally, the analysis found that 2020 had the most citations and that LIS faculty members submitted more publications.

Methodology:

Title of the study

“Bibliometric Analysis of the European Journal of Information Systems (EJIS) 2019-2023: A study”

Scope and restrictions of the study:

The current investigation is restricted to LIS journals published by Taylor and Francis covered under the SCOPUS source list. A total number of 321 journals were available in the SCOPUS source list according to the 2022 database, among them 157 journals were associated with Library and Information Science. Altogether the 157 journals, 33 journals were published by Taylor and Francis publications. That is the reason the researcher chose Taylor & Francis group published journals (33) in which the journal that had the highest impact factor (9.5) was taken i.e. “European Journal of Information Systems”. This journal was undertaken for further study.

The objective of the study is to

- To examine the dissemination of papers by article.
- To find out how the papers are distributed by page.
- To look at the length and year-by-year delivery of articles.
- To determine the availability of papers by institution.
- To examine the authors' country-wise distribution.
- To know how authors are ranked based on their publications.

- To examine the articles' distribution in terms of content.
- To examine the papers with the most citations.
- To examine the articles with the highest number of references

Data Analysis and interpretation:

Table -1 Author-wise distribution of papers

Author-wise distribution of papers						
Year	Single Author	Double Author	Triple Author	Four authors	Multiple Authors	Total Articles
2023	2(3.50 %)	14(24.56 %)	20(35.11%)	17(29.82%)	4 (7.01 %)	57(100%)
2022	3 (7.69 %)	16(41.02%)	11(28.20%)	6 (15.4 %)	3 (7.69 %)	39(100%)
2021	5 (14.3 %)	10(28.57%)	10(28.57%)	9 (25.71 %)	1 (2.85 %)	35(100%)
2020	2(4.44 %)	13 (28.9%)	12(26.66 %)	13 (28.9 %)	5(11.11 %)	45(100%)
2019	5 (14.3 %)	11(31.42%)	9 (25.71 %)	7 (20%)	3 (8.57 %)	35(100%)
Total	17(8.05%)	64(30.33%)	62(29.38%)	52(24.64%)	16(7.58%)	211(100%)

The above table provides about the authorship pattern that was analyzed and presented in the following regarding to analyse to depict the percentages of solo and multiple authorship. It is evident that the foremost is related to the “European Journal of Information Systems” Journal in items. As indicated the above statistics show the results analyze the 211 contributed the same number of authors. The above analysis shows that the recognised contributions preferred to produce investigation results in double authorship mode 64 articles (30.33%) shadowed by three authorship approach 62 (29.38%) occupied 2nd place charted by four authorship mode 52 (24.64%) occupied 3rd place. The study indicates the results single authorship contribution mode possible with 17 articles (8.5%) followed by last but not least multiple authorship occupied fifth place correspondingly.

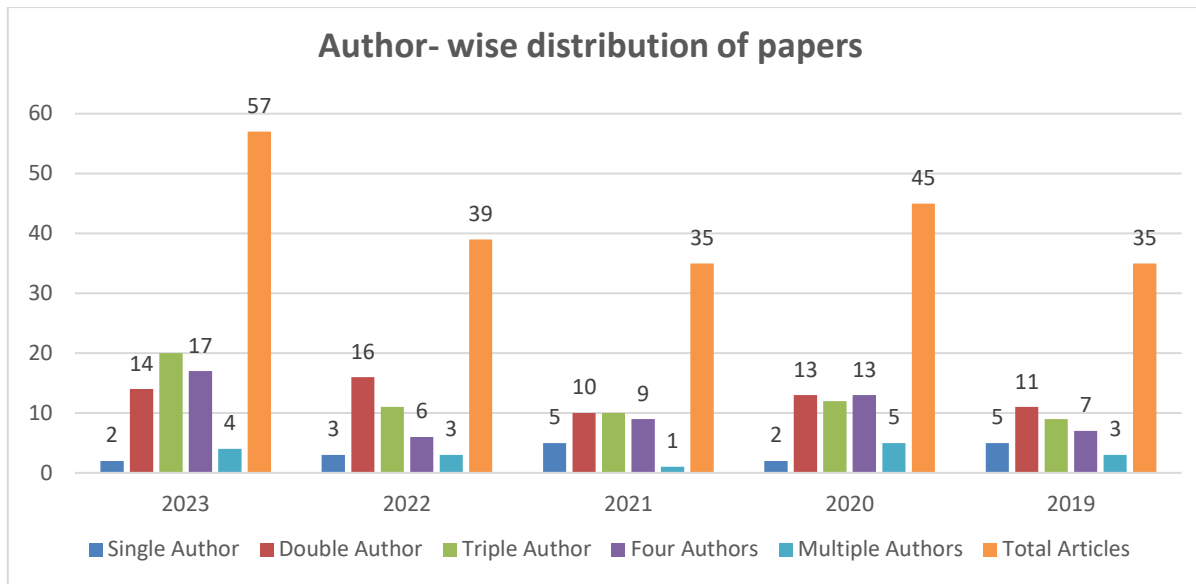


Table 2 Page-Wise distribution of papers

<i>Page-wise distribution of papers</i>					
Year	1-5 Pages	6-10 Pages	11-15 Pages	16-20 Pages	More than 20
2023	1(1.75%)	3 (5.26%)	8 (14.03 %)	19 (33.35 %)	26 (45.61%)
2022	2 (5.12%)	4 (10.25%)	5 (12.82 %)	13 (33.33%)	15(38.48%)
2021	2 (5.71%)	0	2(5.71%)	17 (48.58%)	14 (40%)
2020	2(4.44%)	4 (8.88%)	8 (17.8%)	20(44.44%)	11(24.44%)
2019	2 (5.71%)	1(2.85%)	4(11.45%)	12 (34.28%)	16 (45.71%)
Total	9(4.26%)	12(5.68%)	27(12.79%)	81(38.38%)	82(38.86%)

The above table shows the results regarding the page-wise distribution of the papers. The page distribution is divided into 5 categories – i.e. 1-5, 6-10, 11-15, 16-20, and more than 20 pages. The study sought out the results in this regard the majority of the page distribution reveals more than 20 Pages with 82 articles (38.86%) followed by 16-20 Pages with 81 articles (38.38%) occupying a secured place. The percentage of articles (12.79%) occupied 3rd place in 11-15 page-wise distribution. The 6-10 and 1-5 page distributions attained 4th and 5th place 12(5.68%) and 9 (4.26%) respectively.

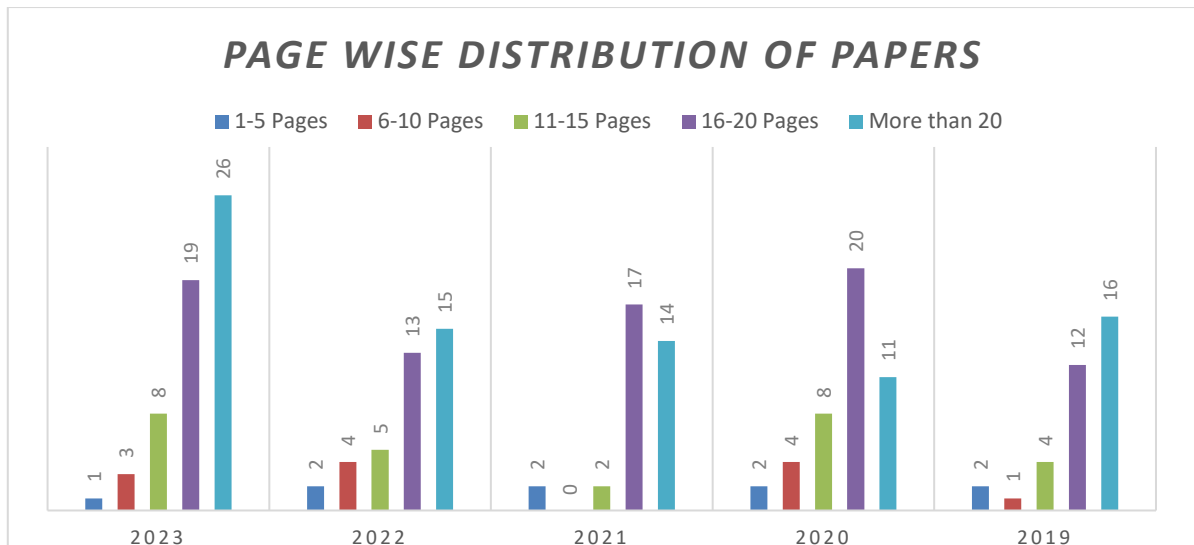


Table -3 Year-wise distribution of articles and their length

Year-wise distribution of articles and their length				
Year	No. of Articles	Percentage (%)	Total No. of Pages	Average No. of Pages
2023	57	27.01	1096	19.17
2022	39	18.48	712	18.25
2021	35	16.6	723	20.65
2020	45	21.32	772	17.15
2019	35	16.59	685	19.57

The table shows the results regarding the year-wise distribution of articles and their length. Year-wise publication statistics of “The European Journal of Information Systems” within this specific period coverage of SCOPUS Index year began from 2019 - 2023 i.e. the overall number of 5 years including 211 papers have stood circulated. It is noticed that the highest number of 57 articles published in the year 2023 occupied 1st place with 27.01%. The percentage of articles (21.32%) published in 2020 occupied 2nd Place with 45 articles. The study showed results in 2022(18.48 %) and 2019 (16.59%) articles 39 and 35 respectively.

In the case of their total number of pages and average number of pages shows that 2023 occupied 1st place with 1096 documents an average of 19.17 pages in length. The second number of highest pages is 772 in the year 2020, with an average of 17.15 pages. In the year 2021 723 pages with an average of 20.65 followed by 2022 -712 with 18.25, 2019 685 documents publish with 19.57 average pages respectively.

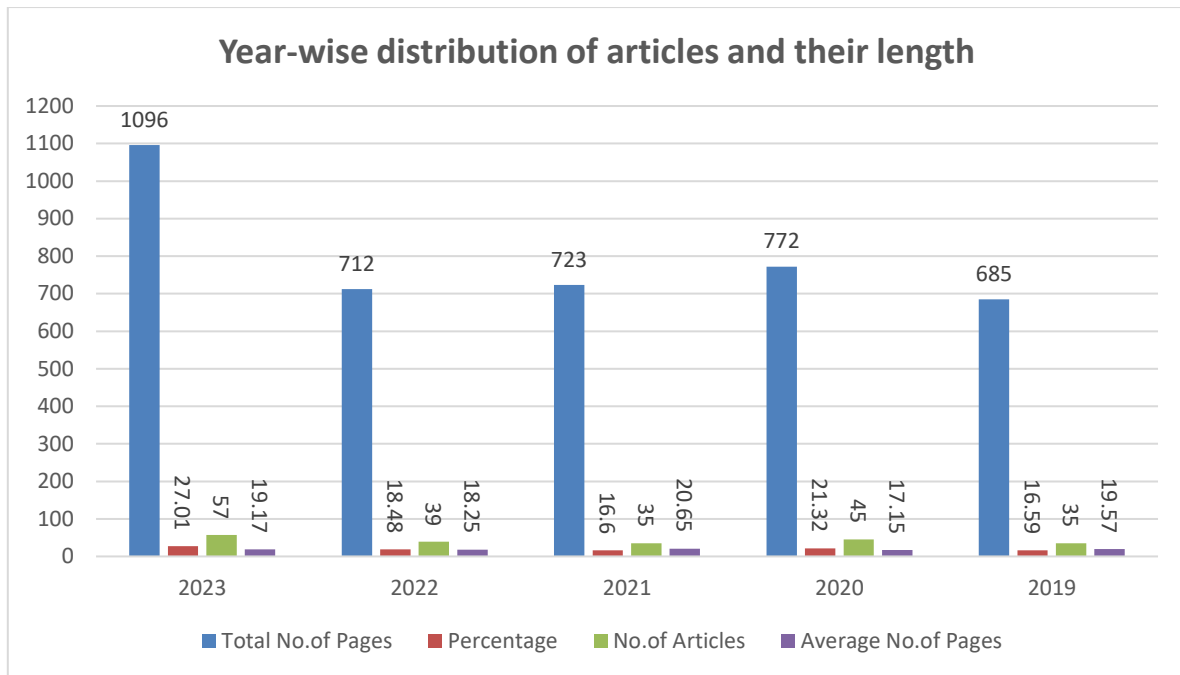


Table -4 Institution-wise distribution of Articles

Institution-wise distribution of Articles				
Year	Academic Institution	Non-academic Institution	No. of Authors	Total No. of Articles
2023	170 (94.97%)	9 (5.03%)	179 (100%)	57
2022	107 (100%)	0	107	39
2021	98 (100%)	0	98	35
2020	142 (100%)	0	142	45
2019	99 (100%)	0	99	35

The above table shows the results regarding the institution-wise spreading of articles published in “The EJIS” during the under 5 year period of study out of 211 contribution highest percent of them (94.97%) delays of academic institution-wise distribution. The majority of them (5.03%) were associated with the non-academic distribution of articles. Among the years almost all articles represent the academic institutions.

The year-wise distribution shows that 170 institutions belong to academic and the number of authors 179, from 57 articles occupied first place in the year 2023 followed by 2020 142 academic institutions with 142 contributed authors from 45 articles, followed by the year 2019-99 academic institution from the 99 authors from 35 articles and 98 authors represent from 98 academic institutions from 35 articles each had occupied 4th and 5th places respectively.

State- Wise delivery of Authors-Top 10			
Rank	Name of the Country	No. of Authors	Percentage (%)
1	USA	161	25.76
2	Germany	75	12
3	Australia	40	6.4
3	France	40	6.4
4	Switzerland	31	4.96
5	UK	25	4
6	Denmark	24	3.84
7	Sweden	23	3.68
8	China	22	3.52
9	Finland	17	2.72
10	Canada	16	2.56

Table -5 State-wise delivery of Authors-Top 10

The above table shows the results regarding the Nation-wise distribution of Authors who contributed their contributions to the journal “The European Journal of Information System”. The inquiry shows that during the 5 years of study out of 625 authors, the highest percentage of them (nearly 26%) from USA and followed by the Germany (12%). Australia and France shared the third highest place (6.4%). It is noticed that Switzerland occupied fourth position (nearly 5%). Fifth to tenth positions were occupied by UK (4%), Denmark (nearly 4%), Sweden (3.68%), China (3.52%), Finland (2.72%), and Canada (2.56%) correspondingly.

Ranking of Authors according to their Publications-Top 3

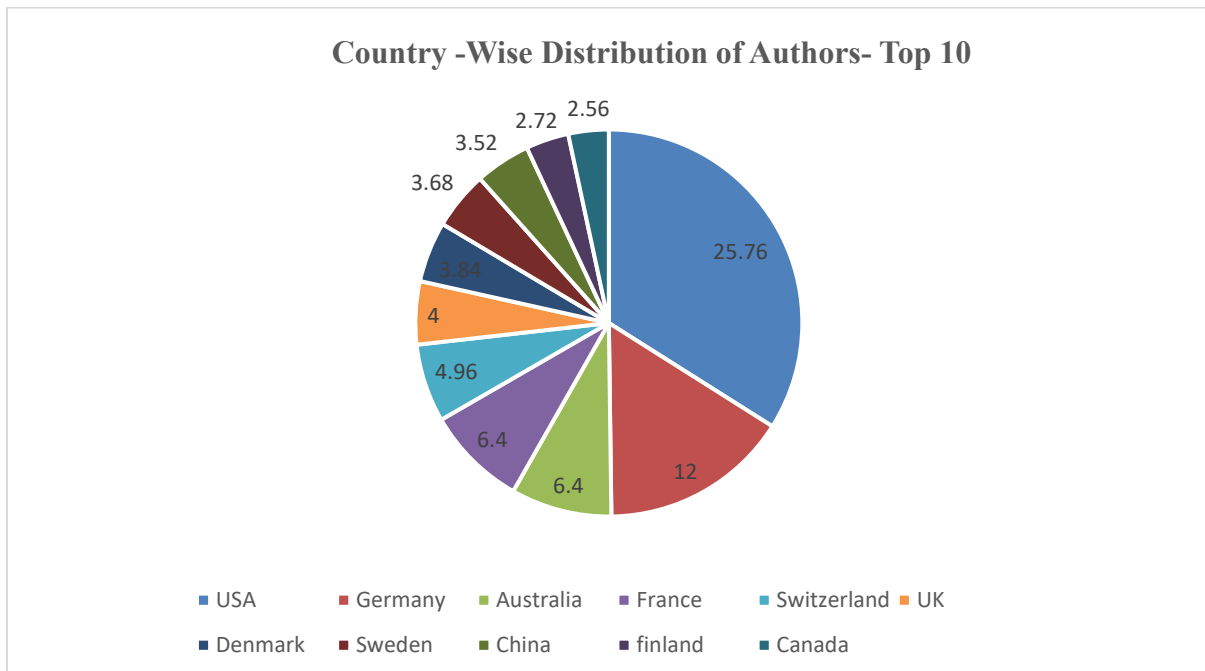
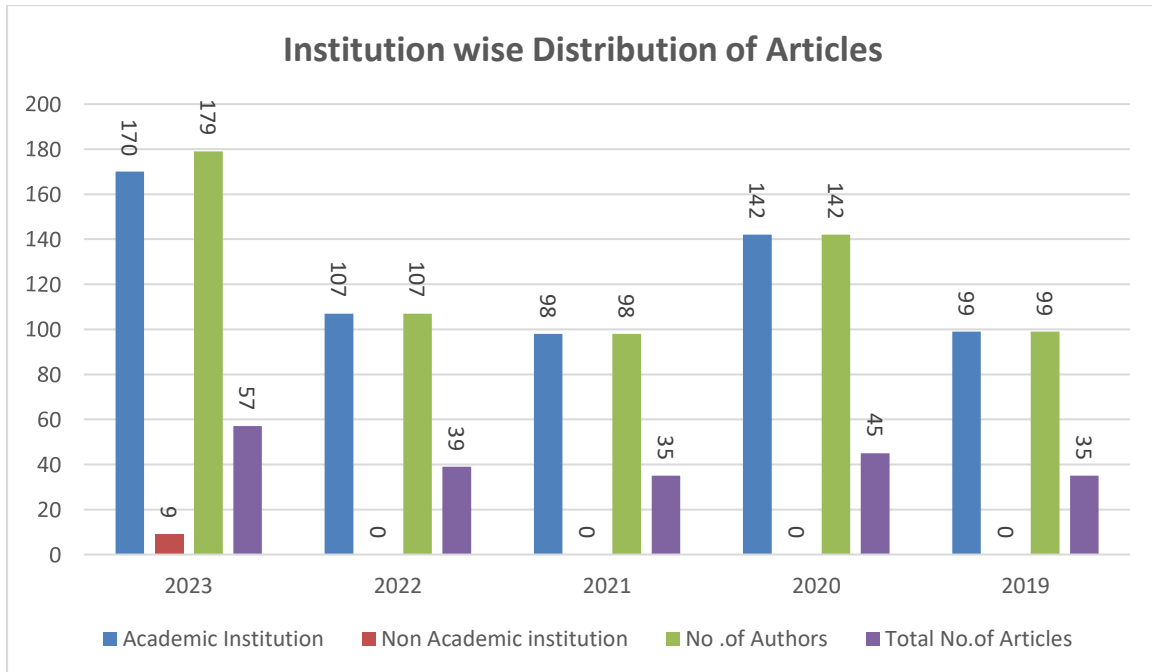


Table 6 Ranking of Authors according to their Publication-Top

Name of the Author	No. of Contributions	Rank
Frantz Rowe	4	1
Jan vom Brocke	4	1
Michael D. Myers	4	1
Pär J. Agerfalk	4	1
Hameed Chughtai	3	2
Jingguo Wang	3	2
KazemHaki	3	2
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Kieran Conboy	3	2
Martin Wiener	3	2
Shirish C. Srivastava	3	2
Adel Yazdanmahr	2	3
Alan Hevner	2	3
Alexander Benlian	2	3
AnuraginiShirish	2	3
Jan Recker	2	3
JannisBeese	2	3
Lorraine Morgan	2	3
MagnoQueiroz	2	3
Paul Benjamin Lowry	2	3
Raquel Benbunan-Fich	2	3
Richard Baskerville	2	3
Rudy Hirschheim	2	3
Tina Blegind Jensen	2	3
Tina Blegind Jensen	2	3
Yuan Li	2	3
TuureTuunanen	2	3
Jan Marco Leimeister	2	3

The above table describes regarding ranking of authors depends upon number of contributions. It is noticed that four authors contributed four articles each stands on first position followed by seven authors contributed three articles each occupied second place. Remaining of them (seventeen) attained third place consecutively.

Table 7 Content-Wise distribution of the articles

Content-wise distribution of the articles		
Nature of the Content	No. of Articles	Percentage
Empirical Research	80	37.91
Research	48	22.74
Special Communications	24	11.37
Editorial	15	7.1
Ethnography	8	3.8 (3.79)
Literature Review	7	3.31
Research Essay	7	3.31
Issue and Opinion	5	2.36
Special Issue	4	1.9 (1.89)
Theory Development	3	1.42
Guest Editorial	3	1.42
Response	3	1.42
Review	2	0.94

The study shows that the content wise distribution of the articles. Majority of the content represent to Empirical research is occupied first place (nearly 38%) followed by Research (22.74%). The study noticed that Special communications, Editorial and Ethnography sharing third (11.37%), fourth (7.1%) and Fifth (3.8%) position respectively. The analysis also noticed that sixth place were jointly shared by Literature review and Research Essay (3.31% each). It is emphasizes that seventh to tenth places were occupied by Issues and opinion (2.36%), Special Issue (1.9%), ninth position jointly shared by Theory Development, Guest Editorial, Response (1.42% each). The study found that not but not least tenth place occupied by review (nearly 1%).

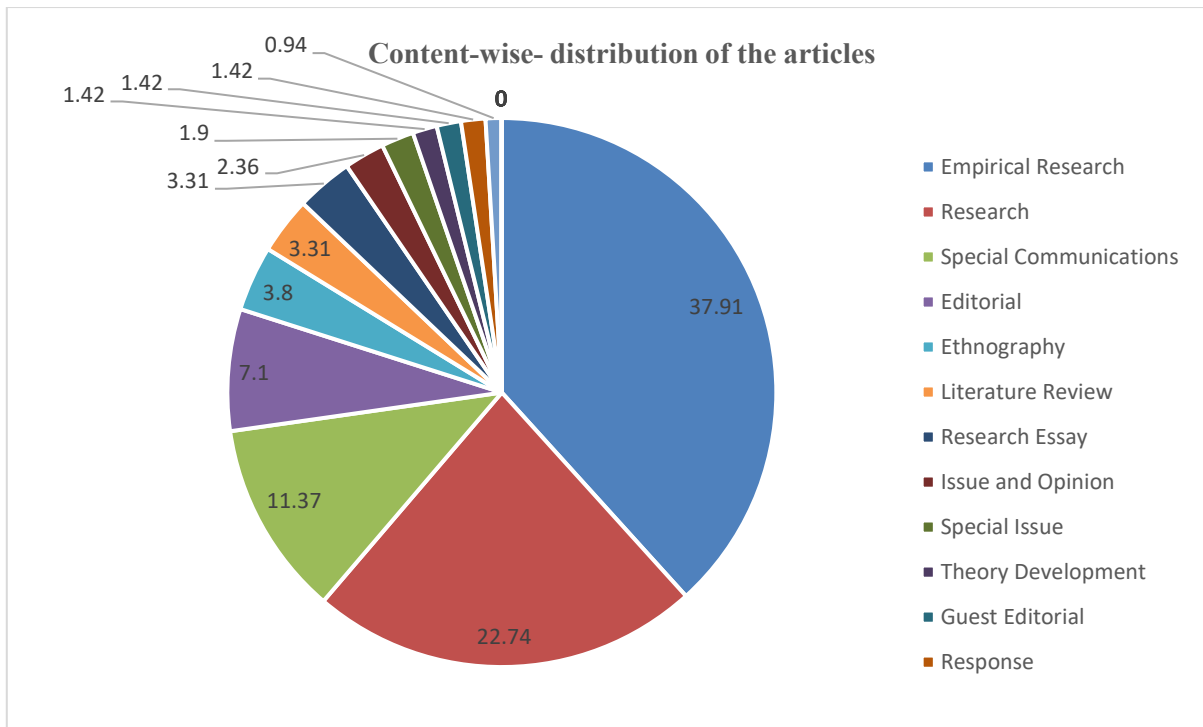


Table 8The Highest Cited Articles –Top 10

Highest cited articles -Top 10			
Rank	Name of the Article	No. of Authors	Citations
1	An affordance perspective of team collaboration and enforced working from home during COVID-19	4	292
2	What drives unverified information sharing and cyberchondria during the COVID-19 pandemic?	4	278
3	Algorithmic bias: review, synthesis, and future research directions	2	151
4	Digital Transformation and the New logics of business process management	3	144
5	Understanding the dark side of Artificial Intelligence (A) Integrated Business Analytics: assessing firms operational influence and competitiveness	4	138
6	COVID-19 crisis.	5	135
7	Examining app specifications	5	130
8	Big data analytics	2	107
8	AI based documents	4	107
9	IT related topics	3	92
10	Digital transformation in family-owned Mittelstand firms: A dynamic capabilities perspective	2	89

The above table describes about the articles which had occupied top -10 highest citations from all the total articles (211) during the five years period of time published in EJIS. It is indicated that that articles regarding ‘COVID-19 Pandemic’ sharing first and second positions with citation count 292 and 278 consecutively. It is found that based on ‘Algorithmic bias’ stands third position had 151 citations followed by topic on ‘digital transformation’ positioned at fourth place with 144 citations. The fifth, sixth and seventh positions occupied by the articles on ‘Artificial Intelligence’, ‘Web-Conference’ and ‘Examining App specifications’ got 138, 135 and 130 citations correspondingly. The articles on ‘big data analytics’ and ‘dark side of AI’ jointly shared the eighth place with 107 citations each. ‘The IT architecture’ and ‘digital transformation in family content’ -based articles gained ninth and tenth places with 92 and 89 citations accordingly.

Table 9 The Highest Reference given articles –Top 10

Highest References are given articles-Top-10			
Rank	Name of the Article	No.of Authors	References
1	Representing instances: the case for reengineering conceptual modelling grammars	3	206
2	Understanding the role of social networking sites in the subjective well-being of users: a diary study	3	199
3	Can peers help reduce violations of formation security policies? The role of peer monitoring	2	184
4	Enabling service co-production: a theory-building case study.	4	172
5	IT architecture flexibility and IT governance decentralization as drivers of IT enabled dynamic capabilities and competitive performance: The moderating effect of the external environment	3	168
5	Examining the interplay between big data analytics and contextual factors in driving process innovation capabilities	2	168
6	The dark side of people analytics: reviewing the perils for organizations and employees.	5	167
7	Continuous improvement of information security management: an organizational learning perspective	4	164
8	A critical review of organization-technology sense-making: towards technology materiality, discovery, and action.	2	157
9	An empirical study of community	4	154
10	How long can this party last? What the rise and fall of OR/MS can teach us about the future of business analytics.	1	148

The above table provides the articles that gave the highest number of references taken as the top 10 articles out of 211 articles during the 5 years published in the EJIS. The article on ‘reengineering conceptual modelling grammar’ gave the highest number of references 206, which occupied first rank, followed by the article on the ‘role of social networking sites’, which attained a second position with 199 references. The third and fourth positions were achieved with articles on the ‘role of peer monitoring’ and ‘enabling service co-production’ with references 184 and 172 separately. The fifth position was mutually shared by the papers written on ‘IT architecture flexibility’ and ‘big data analytics’ with 168 references each. The articles on

the 'dark side of people analytics' and 'information security management' gained sixth and seventh places and had references 167 and 164. The 'critical review of the technology sense-making' article stands in eighth position with 157 references given. Last but not least the ninth and tenth places occupied the articles on 'community cohesiveness' and 'future of business analytics' with 154 and 148 references one-to-one.

Findings and Discussion:

The study findings explored that among the years 2023, the uppermost number of articles were published. The analysis shows the author-wise distribution of paper among the years triple authors occupy the highest place in the year 2023.

The study finds that according to the author-wise distribution of papers in the year 2023, the highest number of articles were underwritten by triple authors, and in the case of the involvement of four authors got second position. The contribution of double authors is found that in the year 2022 occupied the highest position. The contribution of a single author was maximum in the years 2021 and 2019 occupying first place each. Concerning multiple author's highest percentage of contribution was in the year 2020.

In the years 2023, 2022, and 2019 the highest percentage of page-wise distribution of papers is between the page-length more than 20. In the years 2021 and 2020, the contribution of page-wise distribution of papers with a range between 16, and 20 occupied the highest percent.

Based on the year-wise distribution of papers the year 2023 had the highest number of articles and the total number of pages in the articles (1096 pages) were contributed.

The institution-wise distribution shows that all are most associated with academic institutions in the years except 2023. In 2023 Academic institutions contributed nearly 95% and the remaining of them belong to Non-academic institutions (5.03).

Country-wise distribution of the author's highest percent is associated with the USA with 161 authors.

Content-wise, the distribution of articles shows that 'Empirical Research' is the top count followed by general research and special communication, and 'Review' gained the meagre rank.

The study emphasized COVID-19 COVID-19-related articles occupied the top 1st and 2nd places regarding the highest cited articles. It is recognized that the highest references approached articles on 'Reengineering conceptual Modelling grammar'.

Conclusion:

The findings of the study are helping Library Information Scientists while making appropriate conclusions about the improvement of collection development weeding out outdated documents from the Library stacks and also adding needful collections in libraries. The EJIS is a high-ranking SCOPUS Indexed Journal published online and peer-reviewed with the highest impact factor published by the Taylor & Francis group.

The publishing trend is reliant on the production of contributions, patterns of benefaction, and quality of Research. The year 2023 shows an extreme number of contributions to the European Journal of Information Systems. This investigation disclose that the 626 authors contributed to the classification of articles. It was found that were most recognized authors have contributed four articles, and the highest number of contributed authors were from the United States of America.

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