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Authorship Characterization in Library and Information Science Journals: Content Analysis

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Abstract
The dynamics of scholarly communication within specific fields can be understood by examining authorship trends and patterns in academic publications. The purpose of this study is to identify and characterize the dominant trends in authoring practices by performing a content analysis of authorship features in the Middle Belt Journal of Library and Information Science (MBJLIS). Data were collected from the journal's website by downloading all papers published over a five-year period (2019–2023), totaling 69 papers. Using this comprehensive dataset, each issue and the papers within those issues were reviewed to examine the number of articles in each volume, assess the level of collaboration among authors, determine the institutional affiliations of the authors, establish the themes of the papers, and ascertain the geographic distribution of the authors. Descriptive statistics were employed to present and analyze the dataset, with Microsoft Excel used to create visual representations of the data. Results from the content analysis indicate that the journal published an average of 14 papers in each issue, with two-author collaborations being prominent among the authors. Universities had more papers affiliated with them compared to other institutions. Themes emerging from the analysis included library services, information literacy, social media, and the application of ICTs in libraries. These findings shed light on the evolving nature of authorship in Library and Information Science (LIS) literature. It is recommended that international collaborations be encouraged and that themes such as Artificial Intelligence (AI), cloud computing, robotics, and data mining in libraries be explored to understand how librarianship can leverage these advancements, among other suggestions.

Keywords*:* Authorship, Bibliometric, Collaboration, Information, Librarianship.

Introduction

Authorship is a key component of academic communication, reflecting the contributions and teamwork within academic communities. Understanding authorship characteristics is essential for identifying patterns in research production, collaborative dynamics, and disciplinary change within the field of Library and Information Science (LIS). Scholarly writings are highly structured and adhere to specific formats and patterns. These works may or may not be published, and their publication and access may be fee-based or not. They can include empirical surveys, case studies, experiments, or opinion papers. Ultimately, the

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communication of these scholarly works through journals is vital; without dissemination, scholarly works would hold little significance for the academic community and the broader public.

Librarianship, like any profession, has its scholarly communication media, which may be either electronic or paper-based. In recent times, globalization has become a trending phenomenon, intensifying discussions around topics such as diversity, collaboration, and tolerance across various sectors of society. Given this context, it is crucial to re-examine scholarly communication media through the lens of selected variables to identify the level of diversity and other dynamics present in scholarly communication, particularly in the realm of librarianship. This study focuses on several aspects: the level of collaboration among authors, emerging themes from various publications, and the geographic characteristics of authors. The aim is to establish how scholars collaborate and which areas of study garner their attention.

Authorship analysis involves studying the attributes of a piece of work to draw conclusions about its authorship (El Bouanani and Kassou, 2014). Despite the critical role of authorship in shaping scholarly discourse, empirical research on authorship trends in LIS journals remains limited. This study aims to bridge that gap through a quantitative examination of authorship characteristics in LIS literature. By exploring various aspects of authorship—such as author distribution, collaboration trends, and author demographics—this research seeks to provide a comprehensive overview of authorship practices within the LIS field.

The Middle Belt Journal of Library and Information Science (MBJLIS) is a peer-reviewed journal published by the Nigerian Library Association (NLA), Kwara State Chapter. Established in 2003, the journal has a hybrid publication model, offering both online and hardcopy versions. It publishes scholarly works in the field of librarianship and closely related areas, such as archives, with all publications presented in the English language.

Statement of Problem

In this information age, we are witnessing an explosion of research across all fields of human endeavor, resulting in a vast array of scholarly publications. Within the discipline of Library and Information Science (LIS), there are numerous scholarly journals; however, recent research focusing specifically on authorship characterization within these journals is notably scarce. This study aims to address this gap by identifying authorship and collaboration trends and patterns in a prominent scholarly journal in the field of LIS. Additionally, it seeks to uncover the themes that are of particular interest to librarians, thereby contributing to a deeper understanding of the dynamics within scholarly communication in this field. By analyzing these aspects, the research hopes to shed light on the evolving nature of authorship in LIS literature and provide insights that could inform future research and practice.

Objective

i. To identify the number of articles in each volume
ii. To indicate the collaboration level of Authors
iii. To determine the institutional affiliation of authors

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iv. To establish themes of papers
v. To ascertain geographic spread of authors

Research Questions

i. What is the number of article in each volume?
ii. What is the level of collaboration of authors?
iii. What is the institutional affiliation of authors?
iv. What are the themes emerging from the papers?
v. What is the geographic spread of the authors?

Review of Related Literature

Authorship ethics, cooperation dynamics, and authorship attribution algorithms are only a few of the many themes covered in the literature on authorship in scholarly communication. Previous research has brought attention to the multifaceted character of authorship, highlighting the influence of elements including institutional affiliations, academic norms, and gender differences on authorship practices. Numerous studies, albeit with different approaches and scopes, have looked at authorship patterns in the LIS field. For example, Velmurugan and Radhakrishnan (2015) conducted a study on the *Webology* journal: A scientometric profile between 2007-2013. Their objective was to find out the average number of citations per volume, examine year-wise distribution, ascertain authors' productivity, identify single and joint contributions, evaluate subject-wise distribution of contributions, and estimate the degree of collaboration. They observed that the majority of the papers were written by single authors, whereas a minimum number of papers were written by multiple authors. Also, the maximum number of articles were published by authors from India (18.99%), followed by Australia and Iran (12.64%) and others. The degree of collaboration was found to be 0.506 for the period of study. Useful as their study is, it excluded the *Middle Belt Journal of Library and Information Science*, thereby creating a gap this study aspires to fill.

In reading Velmurugan & Radhakrishnan (2015a), whose research theme was the *Journal of Information Literacy: A Scientometric Profile*, their objective was to study authorship patterns, analyze authors' productivity, examine single and multi-authored papers, and find out the degree of collaboration. They realized from their findings that out of the 61 articles studied, 52.46% of papers had single authors while the remaining 29 (47.54%) were jointly authored. This research work has uncovered authorship trends in the *Journal of Information Literacy* but failed to reveal authorship characterization in the *Middle Belt Journal of Library and Information Science*, which this study seeks to address.

Das and Verma (2021) investigated the authorship and collaboration patterns of the *Annals of Library and Information Studies* journal during 2009-2018: Scientometrics mapping. A total of 342 papers were considered during the study period. They found a growth trend in joint authorship and collaboration, indicating that co-authorship and collaboration are enshrined in the reviewed journal. What is the situation like in the *Middle Belt Journal of Library and Information Science* is what this study is seeking to uncover.

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Daud (2016) conducted a study to identify authorship patterns and collaboration in the *Libri International Journal of Library and Information Services* between 2011 and 2015. The study found that *Libri* published 140 journal articles, most of which were in the areas of school, academic, special, and public libraries, with the highest number of research articles coming from South Africa (23 articles or 16.43%). The authorship pattern changed from single authors (63 articles or 45%) to multi-authorship (77 articles or 55%), and the average degree of collaboration stood at 0.55. This means that single authorship is becoming more archaic compared to multiple authors. While the study fulfilled its research questions, it was limited in scope as it left out the *Middle Belt Journal of Library and Information Science*, creating a gap that this study will fill.

In a study on Authorship Patterns and Collaborative Measures in the *Journal of the Geological Society of India* (2009-2018): A Bibliometric Analysis by Sridhar and Yadagiri (2020), the majority of works are collaborative, which ensures teamwork and increased sharing of scholarly information among members. In another study on the Visualization of Authorship Patterns and Research Trends of the *Annals of Library and Information Studies*, Gupta et al. (2023) reviewed 388 articles, of which 188 (48.20%) were authored by two authors, while single authorship was found in 130 (33.76%). This indicates that the authorship trend is leaning towards joint authorship rather than single authorship. The top five thematic areas emerging from the study are: Scientometrics, Academic Libraries, Open Access, Information Literacy, and Koha. In the same vein, India was the leading country in terms of publications (76.80%) and citations (75.55%), with Nigeria coming in second (6.44% of publications and 5.78% of citations). This indicates that the journal must establish itself on a global scale.

Borteye et al. (2023) considered the theme "Celebrating More Than Three Decades of Scholarly Publishing: A Bibliometric Analysis of The Journal of Science and Technology." The study's findings showed that numerous writers contributed to the journal at a higher rate than single authors. In the journal, institutional cooperation predominates over national and international collaboration. This research is a bibliometric analysis in science and technology, whereas this study will focus on Library and Information Science.

Methodology

To conduct a content analysis of authorship characteristics in the *Middlebelt Library and Information Science Journal*, a five-year (2019-2023) publication of the journal was downloaded from its website. Various bibliometric indicators, including the number of articles in each volume, collaboration networks, institutional affiliations, themes emerging from publications, and the geographic spread of authorship, were computed and analyzed using descriptive statistics in Microsoft Excel, and the data is presented in charts.

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Results and Analysis of Findings

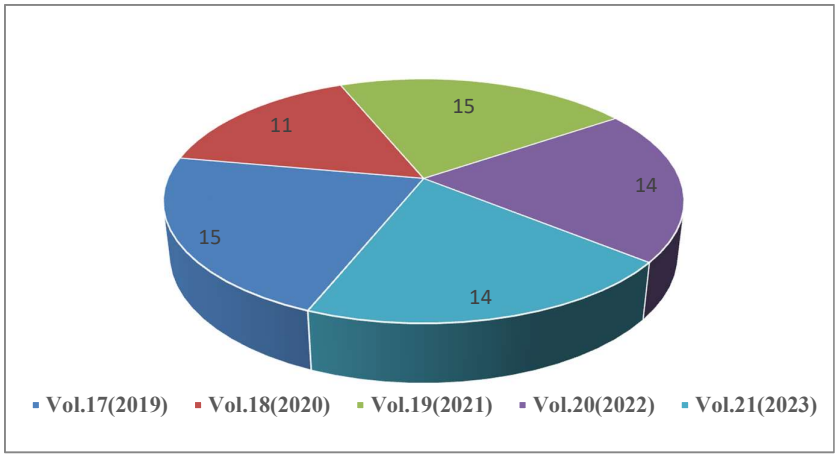


Figure 1: Number of Articles in Each Volume

Figure 1 shows the number of articles in each volume of the selected five years span. It can be seen that volume 18 (2020) had the least papers published (11) and the highest number of articles in a publication is fifteen (15). It appears the publication for the Middle Belt Journal of Library and Information Science is on the average, fourteen (14) papers in every publication.

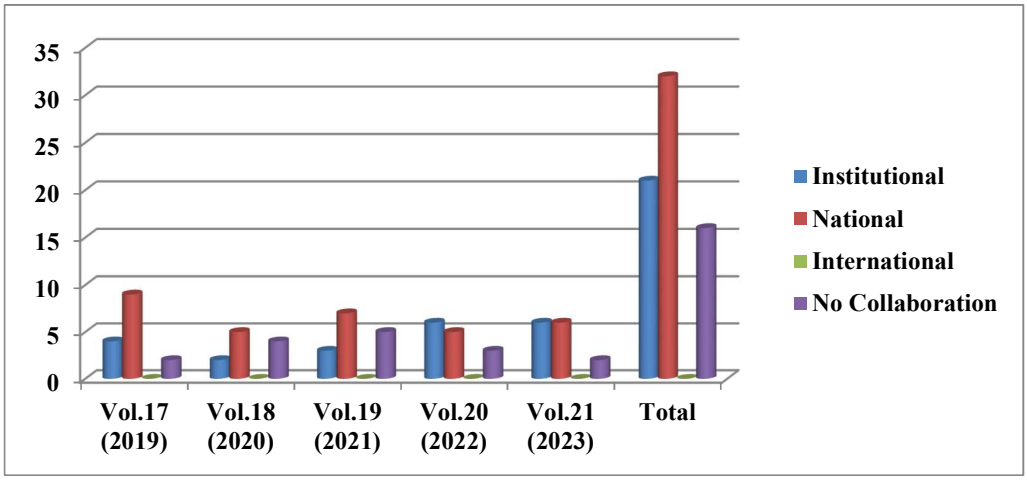


Figure 2: Collaboration by Geographic Grouping

Figure 2 shows the extent of collaboration by geographical grouping. Institutional means all authors are from the same institution, national means the authors are spread within the country, International means all the authors are from different countries and No collaboration means there is only one author to the paper. As seen in the chart, there was a frequency of only 4 authors from the same institutions when Volume 17(2019) was published but in the current volume 21(2023) the number of institutional collaboration has increased to 6 showing an upward trend. Again, it can be seen that cumulatively author's collaboration on a national

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scale has the highest score of 32. Looking intently at the chart, one finds that there is no collaboration at all at international level throughout the five years studies and 16 papers across the five volumes studied had no collaboration meaning they are single authors.

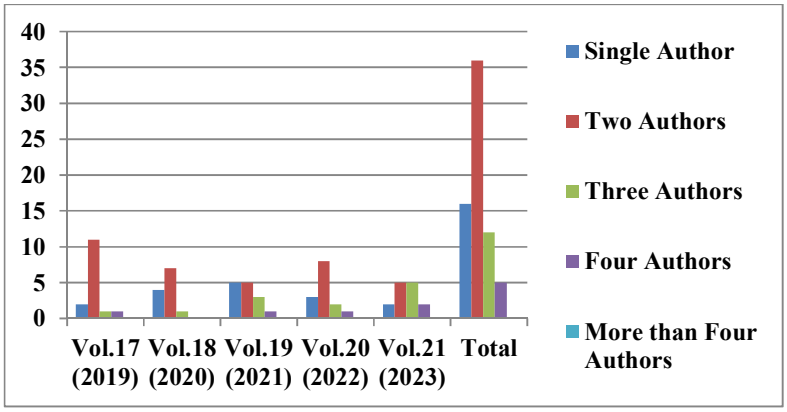


Figure 3: Collaboration by Number of Authors

Figure 3 shows collaboration by number of authors. Single author had the total frequency of 16 and that of two authors is 36, three authors are 12, four authors are 5 and more than four authors are 0. Interesting to note is the fact that of the 69 papers under study only five across all the volumes have four authors collaboration the rest are either two or three authors' collaboration or no collaboration at all.

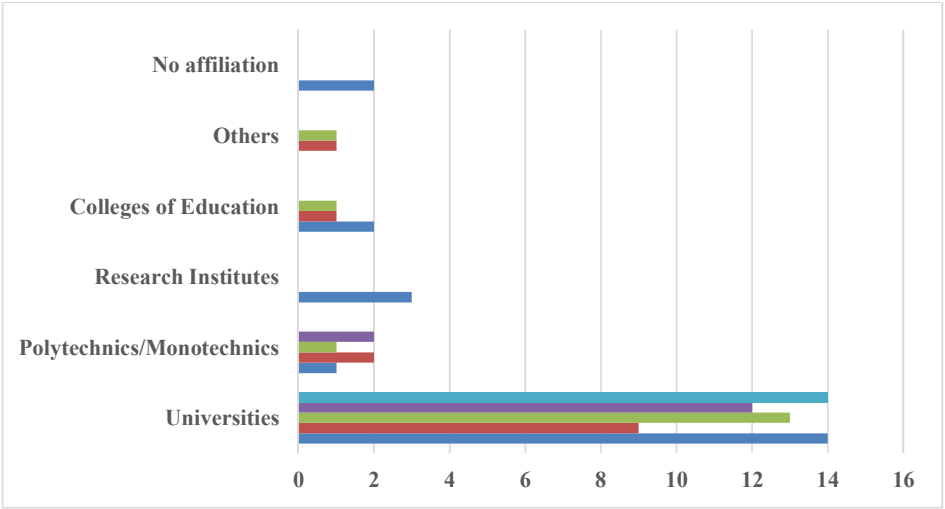


Figure 4: Institutional Affiliation of Authors

Figure 4 shows the institutional affiliation of authors. It can be seen that Volume 17 (2019) and Volume 21(2023) with frequency of 14 each, have the highest frequency of affiliation to a university and the lowest affiliation to a university is 9 which is in volume 18(2020). Volume 21(2023) had all 14 papers affiliated to a university.

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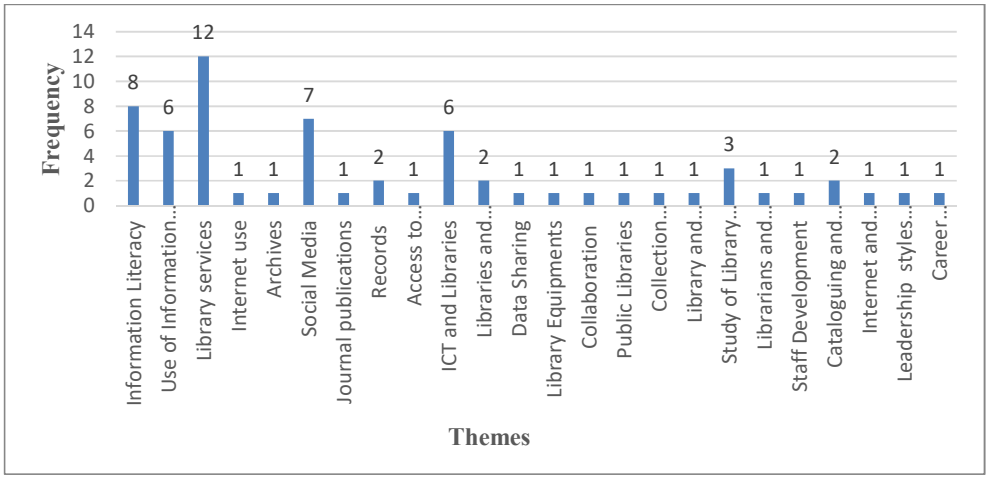


Figure 5: Themes Emerging from Papers

Figure 5 shows themes emerging from the papers published within the period of study. The highest theme is Library Services. The themes that had least frequencies are Library science, Internet use, archives, Data Sharing, Career Development, Self Development, Leadership Styles, Public Libraries, Library Equipments, Collaboration, Collection Development and Internet and Student.

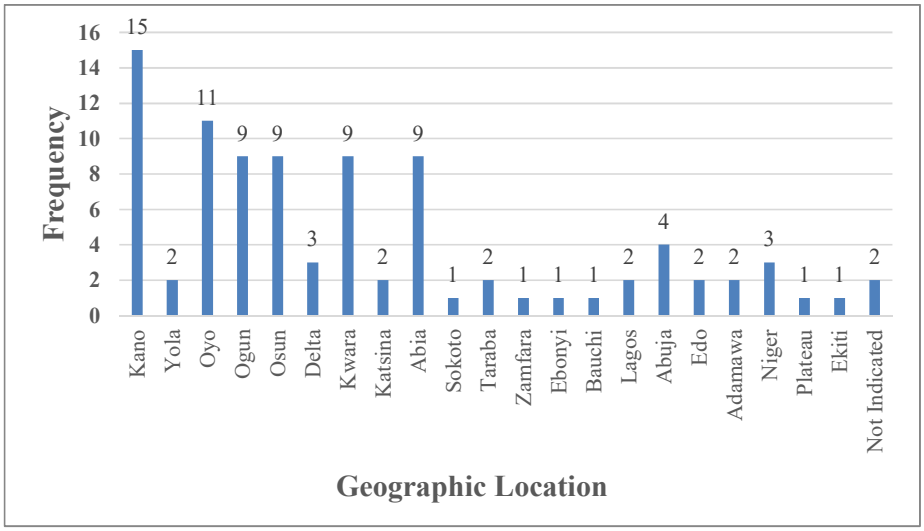


Figure 6: Geographic Spread of Authors

Figure 6 shows the geographical spread of authors. Kano has the highest frequency followed by Oyo and thirdly Ogun, Osun, Kwara, and Abia. The lowest frequencies were Sokoto, Zamfara, Ebonyi, Bauchi, Niger, Plateau and Ekiti States.

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Discussion of Findings

Association Kwara State Chapter, publishes an average of fourteen (14) papers in its issues. This number is fair enough to draw the attention of research communities in the field of Library and Information Science and may encourage subscriptions, even though the publication of journals has more to do with quality than quantity. This result deviates from Borteye et al. (2023), whose study of bibliometric analysis of *The Journal of Science and Technology* (JUST) indicated an average publication of 29 papers per year.

It was found that the level of collaboration most prominent among authors in the studied journal is two-author collaboration. This agrees with Sridhar and Yadagiri's (2020) study on authorship patterns and collaborative measures in the *Journal of the Geological Society of India* (2009-2018), which found that 98.59% of authors had joint authorship. It also aligns with findings from Daud (2016) and Erin (2023) that indicate joint authorship is on an upward trend. Furthermore, collaboration among authors within a country is more prevalent than collaboration among authors from the same institution, which is surprising, as authors in the same work environment should be physically closer and more accessible to one another. These unexpected findings may be attributed to the use of Information and Communication Technologies (ICTs), which eliminate distance as a barrier to communication.

Universities have more papers affiliated with them across all the volumes. This might be because academics are primarily known for conducting research and publishing their findings as part of academic rituals and norms, as well as for career advancement and the development of new ideas. It would have been strange if universities did not top the list of institutional affiliations for these papers. Surprisingly, research institutes, which are also known for research, had fewer papers affiliated with them. This may be because most of them own and publish in their own journals.

Themes emerging from the papers indicate that librarians publishing in the *MiddleBelt Journal of Library and Information Science* (MBJLIS) are more concerned with library services, information literacy, social media, and the application of ICTs in libraries, at least for the last half of the decade. This finding concurs with Gupta et al. (2023), who identified scientometrics, academic libraries, open access, information literacy, and Koha as major themes.

The geographic spread of authors indicates that Kano State had the highest frequency, followed by Oyo, Ogun, Osun, Kwara, and Abia. It is important to note that there are no papers from outside Nigeria; all papers are from within the country. This finding contrasts with those of Erin (2023) and Gupta et al. (2023), whose research showed that the geographic spread of authors included the United States, United Kingdom, Australia, Canada, Spain, Japan, and India.

Conclusion

This study focuses on authorship characterization in Library and Information Science journals. The study aimed to determine the number of articles in each volume, examine the collaboration levels among authors, identify the institutional affiliations of authors, establish

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themes of the papers, and ascertain the geographic spread of authors. Authorship characterization in Library and Information Science journals is crucial for understanding bibliometric metrics, discovering research directions, appreciating previous research, establishing authorities in the profession, and gaining insights into the global landscape of librarianship as a profession.

Based on the findings, it is concluded that librarians and other information professionals publishing in the *Middle Belt Journal of Library and Information Science* between 2019 and 2023 were primarily concerned with library services, information literacy, social media, and the application of ICTs in libraries. They exhibited a preference for two-author collaborations over single authorship. Additionally, they favored national collaboration rather than institutional or international collaborations.

Recommendation

Based on the study, the following recommendations are hereby made:

i. Prospective authors should seek out international collaborations in addition to institutional and national collaborations to gain different perspectives based on geographic contexts; doing so will enrich their research.
ii. Authors in librarianship should focus on themes such as the intersection of artificial intelligence (AI), cloud computing, robotics, data mining, and libraries to understand how librarianship can take advantage of these developments.
iii. Journal publishers should widely advertise their calls for paper submissions so that authorship can reach a broader audience and enrich their publications.
iv. To encourage diversity and inclusivity, journal publishers should consider a blend of single and joint authorship collaborations, as well as institutional, national, and international collaborations when accepting papers for publication. This approach will enhance the journal and ensure a wider readership.

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