

**Bibliometric Study of Authorship Patterns and Degree of Collaboration of Authors Cited in Masters of Law (LL.M) Degree Theses Submitted to the Faculty of Law Rivers University, 2015-2023.**

**<sup>1</sup>Innocent Iwezor Ordu PhD & <sup>2</sup>Boma Torukwein David-West PhD**

<sup>1</sup>Department of Library and Information Science,  
Rivers State University, Port Harcourt

<sup>2</sup>University of Port Harcourt, Choba, Rivers State

**Corresponding Authors' Emails;** innocent.ordu@ust.edu.ng,  
boma.davidwest@uniport.edu.ng

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**Abstract**

The study examined bibliometric study of authorship patterns and degree of collaboration of authors cited in LL.M degree theses submitted to the faculty of law from 2015-2023. The study adopted a documentary analysis method for the study. The population of the study was a total of 85 Masters of Law (LL.M) degree theses submitted to the faculty of Law, randomly selected from 2015-2023 in 12,015 articles. Meanwhile a checklist was designed for data collection hence, data was analysed using descriptive statistics. Findings indicated that single authors made the highest contribution in the field of Law as they dominated the authorship pattern in the study. Also followed were corporate authors, two authors, three authors, and the least which is four authors' contribution. The degree of collaboration (DC) is 0.187 which indicated that faculty of Law LL.M Theses are in favour of single authors, whereas researchers in the field of Law therefore undertook lesser collaborative research. The study therefore recommends that; Mentorship in research should be champion by senior academics in all fields and research contributions should not be centered on the basis of appraisal and recognition of lead authors instead, collaborative efforts should be encouraged in addition to the quality of the research among others.

**Keywords:** Bibliometric Studies, Authorship Patterns, Degree of Collaboration, LL.M Degree, Theses.

**I. INTRODUCTION**

As far as academic and research community is concerned, research scholars and authors are publishing a large number of scholarly communications on daily basis across the spectrum of the globe. The publications span across different fields of human endeavour, impacting the critical sectors of the society. Bibliometrics study the quantitative aspects of science as a discipline or economic activity. In other words, It is part of the sociology of science and has application to science policymaking (Kappi & Biradar, 2019). Researcher is the most significant group in Bibliometrics.

It is conducted mainly on journals related to scientific fields and are based mainly on critical elements such as author, title, subject, citations, institutions or organization among others. This type of study provides useful insights of trends, scientific productivity, emphasis of research in various fields, and researcher preferences for publication (Thavamani, 2013) . it is imperative to

note that, bibliometrics consider organization, classification, and quantitative evaluation of publication patterns as well as provide an analysis of macro-communication. This study discusses the Authorship patterns and Degree of collaboration of Authors Cited in Masters of Law (LLM) Degree Theses submitted to the Faculty of Law Rivers University.

### **Rivers State University Law Faculty**

The faculty of law started in 1981, a year after the establishment of the University in 1980. It was basically set up to provide an opportunity for young men and women of Niger Delta region to have access to legal education in order to contribute to the social and economic development of the nation. The main objective of the training in law is to ensure that graduates of law from the faculty have clear understanding of the place and importance of law in the society. Since all human activities- social, economic, political etc. - take place and are regulated within the legal framework, it is necessary that the students of law should have a broad knowledge and exposure to other discipline in the process of acquiring legal education. It is also intended to act as a stimulus to stir students into critical analysis and examination of the prevailing social, economic and political systems and the relevance of these phenomena in the development of the country.

The faculty started without component departments since the LL.B programme is technically a faculty one. However, it was later realized that there was need to have departments in the faculty. In 1991 two departments were created by the then acting Dean Mrs A.E. Ogbuigwe which were thus: Department of Jurisprudence, Public and International law, and Department of Commercial, Private & Property Law. Meanwhile, after several years, later in 2002, the faculty was restructure into four departments such as; Dept of Business Law, Dept of Jurisprudence and International Law, Dept. of Private and Property Law and Dept. of Public Law. The faculty has a robust Staff strength and students. The flagship programme of the Faculty is the Bachelor of Laws (LL.B) programme which is an inter-departmental programme. It consists of five years of legal training for those with West African School Certificate and four years for direct entry students who must be either first degree holders or holders of Diploma Certificates in Law.

The faculty also runs a Post graduate diploma in Petroleum and Environmental Law as well as Masters of Laws (LL.M) and Doctor of Philosophy (PhD) programmes in any areas of Law. There is also Master of Law and Diplomacy among others.

The faculty proposes to strengthen and consolidate its short-term courses in Customary Law and Legislative studies, as well as engage in similar courses in several areas of Law among others.

### **Statement of the Problem**

Over the years, scholars have engaged themselves into diverse publications in different fields pertaining issues of social concerns, environment and science. However, this has generated a lot of research outputs and had formed trends and patterns in style and dynamics of publications. Studies and Observations have shown that, little studies or non has been carried out on special areas like bibliometrics especially on area of authorship patterns and degree of collaborations on works cited in Law dissertation in the faculty of law Rivers State University. This is a critical study on the pattern and extend of research collaboration in the field of Law. Hence the study will provide answers to several questions which may arise in the course of the study. The study will provide an impetus to the burning issues of research collaboration and evaluation of research pattern across board.

### **Aim of the Study**

The main aim of the study is to examine and identify the authorship patterns and degree of collaboration of authors cited in Master's Degree Theses submitted to the faculty of Law, Rivers State University. More specifically:

1. To identify the authorship patterns of authors cited in LL.M degree theses submitted to the faculty of law Rivers State University.
2. To identify the degree of authorship collaboration in the works cited in LL.M degree theses submitted to the faculty of law, Rivers State University.

### **Review of Related Literatures**

Bibliometric studies or approach is a notch for scientific analysis, procedure and evaluation of publications and patterns that are associated with authors writings and publication. The aim of bibliometric studies is to measure national research performance in the international context or to describe the development of a science field with the help of bibliometric means (Das,2021). Bibliometric analyzes are quantitative studies of publications and publication patterns. Also, bibliometrics employs quantitative analysis to measure patterns of scientific publication and citation, mainly, focusing on journal papers. It is a measure of scientific collaboration, assess to

interdisciplinary research and examines the quality and excellence in research. Verma, Yadav and Singh (2018) conducted a bibliometric study of Library Philosophy and Practice (e-journal) from 2008 to 2017. A total of 1478 scholarly papers were published. It is found that the average growth rate of paper was 147.8 per year. The highest number of publications is in the year 2011 with 197(13.33%) followed by 2017 with 193(13.06%). Majority of papers during 2008-2017 in LPP are in the form of joint authorship, and 41.13% of articles are published in two authorship. From the 35 countries of the world contributed their articles in LPP during 2008-2017. With 42.23% contributions, Nigeria is in top rank while India (24.13%) and USA (9.52%) contribution stood second and third respectively. Ordu & David-West,(2024), examined citation analysis of LIS publication outputs in Nigeria. A descriptive research survey design was adopted while 270 articles formed the population of the study while a purposive sampling technique was used with a checklist as instrument for data collection. The results of the study indicated that, the highest citation index was 78 citations while the lowest was 1 citation. Meanwhile funding of LIS research was relatively poor in Nigeria while the TETFUND was adjudged to be the major funding agency of LIS research in Nigeria.

Thanuskodi (2010) discussed the research output performance of social scientists on social science subjects. The analysis cover mainly the number of articles, authorship pattern, subject wise distribution of articles, average number of references per articles, forms of documents cited, year wise distribution of cited journals etc. Garg & Bebi (2018), conducted a citation study of a number of articles published in Annals of Library and Information Studies (ALIS) and DESIDOC Journal of Journal of Library and Information Technology (DJLIT) from the period 2010-2013 and found that the average number of articles published in DJLIT are more than the articles published in ALIS during the period of study, for this reason DJLIT is published six times in a year, while ALIS is published four times in a year. It was also found that DJLIT 10 received more citations and published more papers than ALIS, citations per paper for both the journals are almost equal, DJLIT has a better immediacy index than ALIS and the impact factor of both the journals was less than one in 2012, but it increased in 2013 and was more than one. Bharvi et al. (2007) analyzed 1,317 papers published in the first fifty volumes from 1978 to 2001 of the international journal Scientometrics and found that the US share of the papers is constantly on the decline while that of the Netherlands, India, France and Japan is on the rise and that the scientometric output is

dominated by the single-authored papers. Zainab et al. (2009), in their bibliometric study of Malayasian Journal of Computer Science, reported their findings regarding the article productivity, authorship collaboration, and journal impact factor of MJCS. Serenko et al.(2010), conducted a bibliometric analysis of a body of literature continued in 11 major knowledge management and intellectual capital peer-reviewed journals and revealed the institutional and individual productivity, co-operation patterns, publication frequency, and other related parameters. Ordu, Okon & Wagwu,(2024), investigated trends and research collaboration in library and information science (LIS) publications outputs in Nigeria from 2000 2016 in the Web of Science (WOS) database. 270 articles formed the population of the study and the sample size. Meanwhile a census sampling technique was used with a checklist as instrument for data collection. The study was limited to the use of Social Science Citation Index (SSCI), Arts and Humanities Citation Index (AHCI) all in WOS while publication counts and analysis were used to analyze data based on the research questions. Results of the study showed among others that, there was an increasing and fluctuating trend in the annual publication outputs in LIS in Nigeria, also multiple authors dominated the published articles and researchers in Nigeria prefer to collaborate more with their colleagues within the same institution, whereas, there was a limited collaboration with foreign authors. Ordu (2024) examined the Authorship patterns and degree of Collaboration of Authors Cited in PhD Dissertation submitted to the Faculty of Education, Rivers State University. The findings revealed that single authors made the highest contribution in the field of Education as they dominated the authorship pattern with 52.18% of the sources cited and a mean score of 77.5 per dissertation. The degree of collaboration was 0.478, indicating low collaborative research in the field of Education. The literatures reviewed showed in some cases that, single authors significantly dominated some research areas while followed by multiple authors except in some rare cases.

## **II. METHODOLOGY**

The study adopted a documentary analysis method for the study. Documentary analysis is a social research method that refers to the various procedures involved in analyzing and interpreting data generated from examination of documents and records relevant to a particular study (Heffernan, 2001). The population of the study was a total of 85 Masters of Law (LLM) degree theses submitted to the faculty of Law, randomly selected from 2015-2023 in 12,015 articles. Hence, a checklist was designed for data collection. Data was analysed using descriptive statistics.

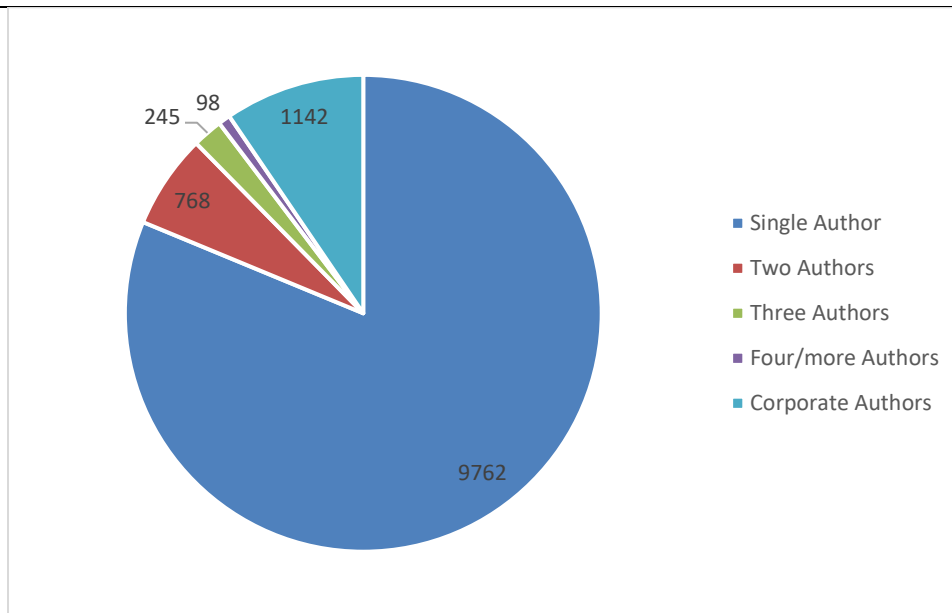
### III. RESULT

#### Authorship Pattern

The Authorship pattern is been analyzed to determine the percentage of single, multiple and cooperate authors respectively.

**Table 1: Authorship Patterns**

S/N	Authorship patterns	Numbers of Articles	Percentage %	Mean Score of Articles
1	Single Author	9762	81.24	114.8
2	Two Authors	768	6.39	9.0
3	Three Authors	245	2.03	2.8
4	Four/more Authors	98	0.81	1.1
5	Corporate Authors	1142	9.50	13.4
	<b>Total</b>	<b>12,015</b>	<b>100%</b>	



**Figure 1: Authorship Patterns**

Table 1 and Figure 1 explained the authorship patterns of all the cited authors in the 85 Mastetrs of Law degree theses. A total of 12,015 articles were analyzed, out which 9,762 (81.24%) were contributed by single authors with an average mean of 114.4 per thesis, 768 (6.39%) were contributions by two authors with an average mean of 9.0 per thesis, 245 (2.03%) were contributions by three authors with an average mean of 2.8 per thesis. 98 (0.81%) were contributed

by four authors with an average mean of 1.1 per thesis which is the lowest number of contributions for the study, while corporate authors contributed 1,142 (9.50%) with an average mean of 13.4 per thesis which is the second highest number of contributions for this study.

Findings indicated that single authors made the highest contribution in the field of Law as they dominated the authorship pattern in the study. Also followed were corporate authors, two authors, three authors, and the least which is four authors' contribution. The findings of this study is in agreement with Salisu and Gama (2019), Singh and Bebi (2013), as they found single authors to be the most prominent and highest contributions in their studies. Although, corporate authors ranked second in this study, which is disagreement with previous studies of Bhedekar and Sonawane (2014), Mukherjee (2009), and Swain (2014). Single authors with (81.24%) outweighed all the other types of authorship patterns. This could be attributed to most authors wanting to take credit for a particular paper or the assumption that, single authors score highest in most appraisal assessments in most institutions; meanwhile research output is supposed to be a measure of quality and impact not based on the notion of high Scores in appraisal or who takes the first shot as lead author. This is the concern of the researcher as expertise insights from senior colleagues may be missing in the quality of the research which may not address the key essence of research.

### **Degree of Collaboration**

The degree of collaboration ranges from 0.79 to 0.89 and the average degree of collaboration is 0.83. The degree of collaboration is calculated by using the following formula.

$$DC = \frac{NM}{NM + NS}$$

$$NS = 768 + 245 + 98 + 1142 = 2253$$

$$NS = 9,762$$

$$DC = \frac{2253}{2253 + 9762} = \frac{2253}{12,015}$$

$$DC = 0.187$$



DC is the degree of collaboration in a discipline. NM is the number of multi-authored research papers in the discipline published during the year. NS is the number of single authored research papers in the discipline published during the year.

For this study, the degree of collaboration (DC) is 0.187. The authorship pattern in the study indicated that, faculty of Law LLM Theses are in favour of single authors, whereas researchers in the field of Law therefore undertook less collaborative research. This findings are in agreement with Mukherjee (2009), Singh and Bebi (2013), Salisu and Gama(2019) and Bhedekar and Sonawane (2014), where single authored studies ranked the highest or dominated the studies, hence projecting less collaboration of authors. However, this finding is contrary to that of Ordu, (2018), Bansal (2013), and Roy & Basak (2013), where multiple authorships were found to be dominant, which significantly showcased the highest level of collaboration among authors or researchers alike. Apart from the single authorship dominating the research stage in the faculty of Law, the findings also revealed corporate authors as taking the second position.

It is pertinent to buttress here that, the degree of authors' collaboration was 0.187. This indicates that, there was lesser collaborative research in the field of Law, in the faculty (below average). This development explains that in a situation where single authors dominate research in a field, automatically, the degree of collaboration will definitely be less among the researchers.

#### **IV. CONCLUSION**

The relevance of bibliometric studies and techniques globally in different disciplines has made a tremendous growth of literature and expansion of the study area. The technique is favorable for a number of purposes which includes selection of journals for the libraries, showing the benefits of a desired field, scientific output evaluation, determining scientific indicators. Authorship patterns and degree of collaborations of authors show case the eminent value placed on the pattern of research, quality and impact that is expected of any scientific research. Every research is expected to yield a positive result; hence collaborative efforts should not be sacrificed on the altar of scores and appraisal purposes.

#### **V. RECOMMENDATIONS**

Based on the findings of the study, the study recommends that;

1. Research collaboration is necessary for quality research output.



2. Advocacy is needed to encourage multidisciplinary approach to research
3. Mentorship in research should be champion by senior academia in all fields
4. Research contributions should not be centered on the basis of appraisal and recognition of lead authors instead, collaborative efforts should be encouraged in addition to the quality of the research.

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