

PRODUCTIVITY OF JOURNALS WHICH PUBLISHED NIGERIAN LIBRARY LITERATURE, 1910-1985

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The productivity of journals which published articles on librarianship in Nigeria from 1910-1985 is studied to determine the number of articles published by each journal, the number of journals that were published in Nigeria and outside Nigeria, the core productive journals that published articles on the literature, the language, subject and title dispersion of journals. The methods adopted were the frequency distribution, percentages and the graphical application of Bradford's law and Chi-square. The observation was that there were four core journals with respect to the Nigerian library literature, 14 (10%) journals were published in Nigeria, title dispersion of journals was low, articles were predominantly in English (99.7%). The dominant subject of the journals was librarianship (70.3%), the number of articles published in Nigerian based journals is higher than those published in foreign journals and that the difference is statistically significant.

INTRODUCTION

Journals constitute the bulk of the literature in any discipline and serve as the forum where different intellectual contributions are made by different authors and carry current information in the subject field.

The objective of this article is to examine the productivity of journals that published articles on librarianship in Nigeria from 1910 to 1985, as follows:

- a) to determine the number of articles published by each journal,
- b) to find out the number of journals published in Nigeria and outside Nigeria,
- c) to determine the number of core journals that published articles on the literature,

- d) to determine the language, subject and title dispersion of the journals and
- e) to determine if there is any significant difference in the number of articles published by Nigerian and non - Nigerian journals.

CONCEPTUAL FRAMEWORK AND PREVIOUS STUDIES

Journal productivity refers to the number of articles published by a journal over a given period of time. It connotes that the journals that publish more number of articles on a subject are more productive than others. It also implies that journals that regularly publish articles on a subject can be relied upon for information on that subject than those which publish occasionally or no articles on the subject. The identification of productive journals in a field enables the librarian with limited budget to purchase the most productive journals for his library. Journal productivity studies can be traced to Samuel Clement Bradford [4] who studied the journal literature of applied physics and lubrication and observed a phenomenon which led him to formulate his famous law of scattering:

"If scientific journals are arranged in order of decreasing productivity of articles on a given subject, they may be divided into nucleus of periodicals more particularly devoted to the subject and several other groups or zones containing the same number of articles as the nucleus, then the number of periodicals in the nucleus and the succeeding zones will be in the ratio 1: a : a²"

Several studies have been conducted on journal productivity. These include cancer research and tropical agriculture [10], acid rain [8], entomology [6], African trypanosomiasis [12], geographical literature [13], library and lab-

our literature on Nigeria [1, 2], toxicity [11], scientific literature [5], soil science [7], etc. Attempt is made to make a similar study of the Nigerian library literature.

METHODOLOGY

The number of articles produced by each journal title was recorded and the data is presented in Table 1. To determine the core number of productive journals, the graphical formulation of Bradford's law was applied to the data. The language of each journal title was ascertained. The journal title dispersion was determined from the graphical formulation of Bradford's law. The Chi-square method was adopted to test the following hypothesis:

"There is no significant difference in the number of articles in journals published in Nigeria and those published outside Nigeria."

FINDINGS

The Bradford - Zipf bibliograph in figure 1 was produced from the data. From Table 1, it is clear that 139 journals produced 1,548 articles. The highest number of articles produced by an individual journal was 308 followed by 203, 121, 106 and so on.

The graph drawn conformed with a typical Bradford - Zipf bibliograph and it revealed an initial curve that runs into a straight line which eventually deviates to the right. From the graph, four journals were determined to be located within the nucleus or core zone. They altogether contributed 738 (or 47.7%) articles constituting the first zone. The journals and the number of articles they produced are: Nigerian Libraries (308), Library Scientist (203), Nigerbiblios (121) and Lagos Librarian (106). The graph also reveals that 75 journals that produced a total of next 750 articles constituted zone 2, while 60 journals which produced the last 60 articles constituted zone 3.

The analysis also revealed that out of the 139 journals only 14 (10%) journals were published in Nigeria. The remaining journals (90%) were published outside Nigeria. The fourteen Nigerian journals accounted for 932 (60.2%) from a total of 1,548 articles while the non-Nigerian journals produced 616 (39.8%) articles. Out the 14 library science journals that contributed to the literature during the period of study, 7 (50%) are no longer published. The currently published journals are: Nigerian Libraries (308), Library Scientist (203), Nigerbiblios (121); Lagos Librarian (106), Library Focus (16), Nigerian Journal of Library and

Information Science Review (9) and Bendel Library Journal (29). The foreign journals that have published ten or more articles are International Library Review (70), UNESCO Bulletin for Libraries (50), Libri (33), New Library World (19), Library Association Record (18), International Library Movement (14), Library Trends (13), Journal of Librarianship (10), School Library Notes (10).

The title dispersion of the journal literature revealed from the graph is 1. This was determined by the point at which the dotted line passing through the linear portion of the bibliograph meets the horizontal axis. The higher the figure obtained, the higher is the extent of scattering of articles among journals. On the other hand, the lower the figure obtained, the lower is the extent of scattering of articles among journals. The value of title dispersion, i.e. 1, obtained in this study obviously points to the fact that the extent of scattering of articles among journals is low.

The language distribution of the articles revealed that 1,544 (99.7%) articles were published in English language while the remaining 4 (0.3%) articles were published in other languages. These other languages are Russian 2 (0.13%), French 1 (0.06%) and Scandinavian 1 (0.06%).

Table 2 about the subject distribution of the journal shows that the dominant subject of the journals containing the Nigerian library science literature was library science with 97 (70.3%) titles. It was followed by general journal titles, i.e. 22 (15.6%). Two titles in the field of archives had published library science literature. Publishing and education accounted for 5 titles (3.6%) each while history, architecture, behavioural sciences, biological sciences, computer technology, literature and agronomic education had only 1 title (0.72%) each which published the Nigerian library science literature.

One of the objectives of the study was to test the hypothesis that there is no significant difference in the number of articles published in Nigerian journals and those published outside the country. When the Chi square statistical method was applied to the data, it was revealed that with 1 degree of freedom at 5% level of significance, the calculated Chi - square value of 19.3 was greater than the critical value of 6.6. It, therefore, follows that the null hypothesis is rejected. There is, therefore, a significant difference in the number of articles published in Nigerian and Foreign based journals. The number of 932 articles published in Nigerian based journals is significantly higher than the 616 published in foreign journals.

Table 1.
Journal Productivity in Decreasing Order of Library Literature in Nigeria, 1910-1985

No. of Articles per Journal	No. of Titles	Cumulation of Titles		Cumulation of Articles	Cumulative Percentage of Articles
A	B	C	A X B		
308	1	1	308	308	19.9
203	1	2	203	511	33.0
121	1	3	121	632	40.8
106	1	4	106	738	47.7
90	2	6	180	918	59.3
70	1	7	70	988	63.8
50	1	8	50	1038	67.1
33	1	9	33	1071	69.2
29	1	10	29	1100	71.1
23	1	11	23	1123	72.5
20	1	12	20	1143	73.8
19	1	13	19	1162	75.1
18	1	14	18	1180	76.2
16	1	15	16	1196	77.3
14	2	17	28	1224	79.0
13	1	18	13	1237	79.9
12	1	19	12	1249	80.6
11	1	20	11	1260	81.4
10	2	22	20	1280	82.7
9	2	24	18	1298	83.8
8	1	25	8	1306	84.4
7	2	27	14	1320	85.2
6	4	31	24	1344	86.8
5	6	37	30	1374	88.8
4	8	45	32	1406	90.8
3	14	59	42	1448	93.5
2	20	79	40	1488	96.1
1	60	139	60	1548	100.0

Table 2.
Subject Distribution Of Journals That Published Articles on Librarianship In Nigeria, 1910-1985

Sl.No.	Subject	No. of Journals	Percentage
1.	Library Science	97	70.3
2.	General	22	15.6
3.	Education	5	3.6
4.	Publishing	5	3.6
5.	Archives	2	1.4
6.	Agronomic Education	1	0.72
7.	Architecture	1	0.72
8.	Behavioural Science	1	0.72
9.	Biological Sciences	1	0.72
10.	Computer Technology	1	0.72
11.	History	1	0.72
12.	Literature	1	0.72

BRADFORD-ZIPF BIBLIOGRAPH OF JOURNAL
PRODUCTIVITY TO LIBRARY LITERATURE ON
NIGERIA, 1910 - 1985

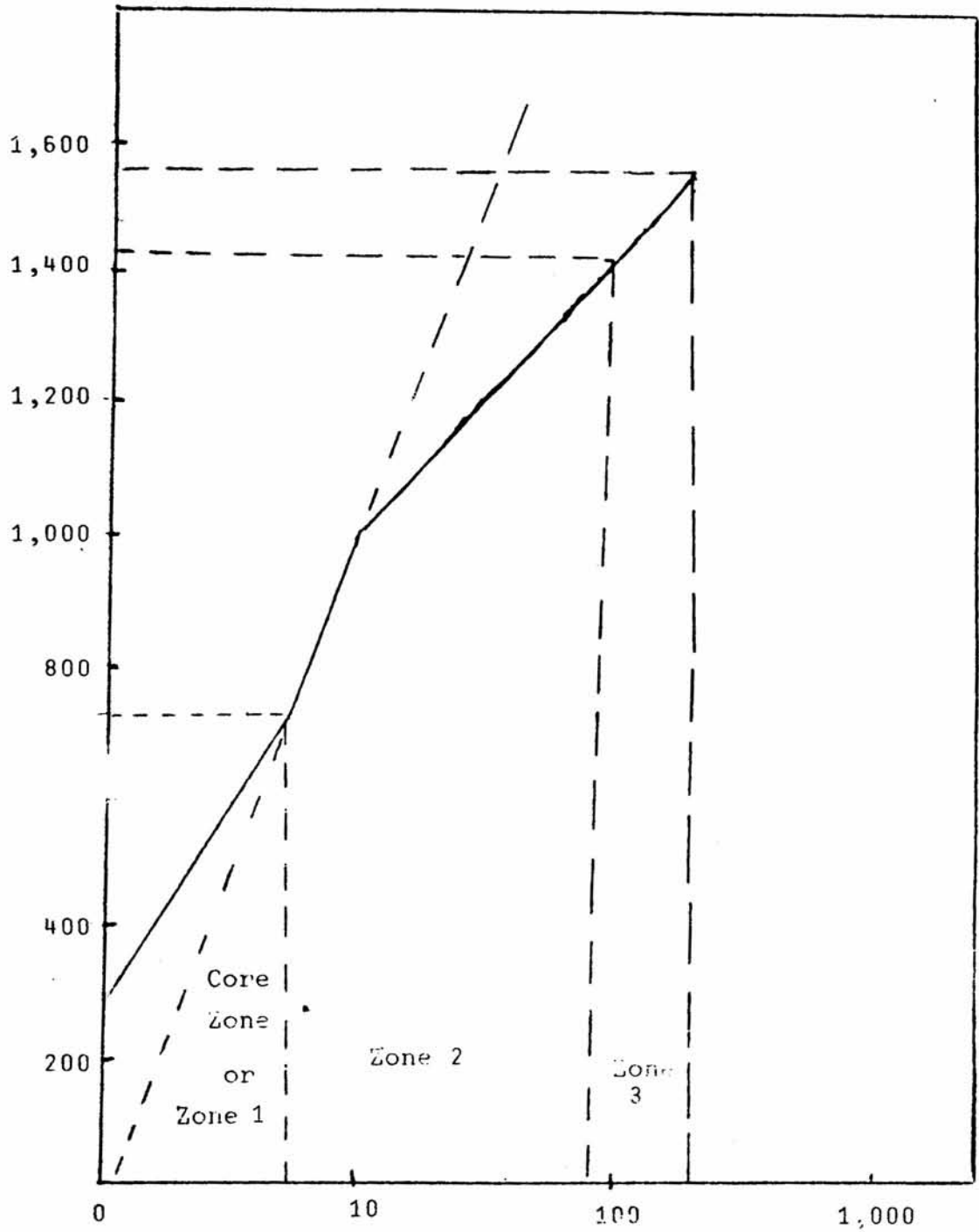


FIG. 1 Logarithm of Journals

DISCUSSION

The study determined four core journals in the literature. This figure is rather low considering the fact that there were 139 journals that published literature on the subject. Although only 14 journals originated from Nigeria, it is worth noting that they published significantly larger number of articles (932) than the non-Nigerian journals. English language was dominant language of the literature. This may be attributed to the fact that English is the official language of Nigeria. The fact that only seven of the fourteen journals that published articles on the subject are currently publishing is also significant.

The low title dispersion of the journals shows that the literature is not scattered among a wide range of journals. The subject distribution of the journals revealed that the majority of journals containing the literature were the library science journals showing a very low subject dispersion.

SUMMARY AND CONCLUSION

This study provided a statistical analyses of the library literature in Nigeria from 1910-1985. It determined the following:

- a) there were four core journals,
- b) the title and the subject dispersions were low,
- c) the dominant language of the journals was English,
- d) 14 journals were published in Nigeria while 125 journals were published outside the country,
- e) seven out of the fourteen were ceased publications,
- f) the number of articles published by the Nigerian journals is significantly higher than those by the non-Nigerian journals.

The null hypothesis that there is no significant difference in the number of articles produced by Nigerian and non-Nigerian journals was rejected. Therefore, the journals, particularly those on library and information science published in Nigeria were the major producers of the literature. However foreign journals such as *International Library Review*, *UNESCO Bulletin for Libraries*

and *Libri* contributed significantly to the literature. Librarians and researchers would find the four core journals and productive foreign journals identified in this study useful in locating Nigerian library literature.

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