



A BIBLIOMETRIC STUDY OF THE JOURNAL TROPICAL VETERINARIAN 2000-2009

Jacob Hundu

*Librarian I, Federal College of Animal Health and Production Technology,
Vom, Plateau State
jahundu@gmail.com*

ABSTRACT

Objective: *The objective of the study was to make a bibliographic and citation analysis of articles published in the journal Tropical Veterinarian from 2000 – 2009.*

Research Method: *The methodology applied in the study is bibliometric analysis, which is used to study in detail the bibliographic features of the articles and citation analysis of the references at the end of each article published in Tropical Veterinarian from 2000-2009.*

Result: *The study shows that 229 articles were published in the ten volumes - 20 (2000) to 29(2009) studied. The study revealed that maximum number of contributions comes from joint authors with 88.2%. Also, most of the articles (64.4%) contain references which include journals.*

Introduction

Bibliometrics is a type of research method used in library and information science. It utilizes quantitative analysis and statistics to describe patterns of publication within a given field or body of literature (Dhimon, 2000). According to Thanuskodi (2010), the term “bibliometrics” was coined by Pritchard in 1969. A pioneering example of a bibliometric study was statistical analysis of the literature of comparative anatomy from 1543 to 1860, done by counting book and journal titles, and grouping them by countries of origin and periods. Hulme (1923) conducted a study entitled “Statistical Analysis of the History of Science”. His analysis was based on the entries in the *English International Catalogue of Scientific Literature*. A third study by Gross and Gross (1927), counted and analyzed the citations in articles from the *Journal of the American Chemical Society*, and produced a list of journals deemed important to chemical education. Another prominent work was Bradford’s (1934) article on the distribution of literature in lubrication research. It is an important part of the theoretical foundation of bibliometrics, and “Bradford’s Law of Scattering.”

The great library scientist, S.R. Ranganathan in 1948 coined the term “librametry”, which historically appeared first and was intended to streamline the services of librarianship. Bibliometrics is similar to Ranganathan’s librametrics, scientometrics, infometrics, and sub-disciplines like econometrics, psychometrics, sociometrics, biometrics, technometrics, chemometrics, climetrics, and webometrics where mathematics and statistics are applied to study and solve problems in their respective fields. Scientometrics is now used for the application of



quantitative methods to the history of science and overlaps with bibliometrics to a considerable extent (Ranganathan, 1969).

Objectives of the Study

This study was undertaken with the following objectives to:

- make an analysis of articles published in *Tropical Veterinarian* from 2000-2009;
- identify the number of contributions published during the period of study;
- determine the distribution of articles per year;
- study the length of articles; and the authorship pattern;
- discover the number of cited documents and the average number of references per article;
- identify the number and forms of documents cited; and
- identify the distribution of cited journals per year.

Methodology

The methodology applied in the study is bibliometric analysis, which is used to study, in detail, the bibliographic features of the articles and citation analysis of the references at the end of each article published in *Tropical Veterinarian* from 2000-2009. For this the relevant data are collected and recorded. Then they are tabulated and analysed for making observations.

Source Journal

Tropical Veterinarian is an international journal devoted to all aspects of health and disease of animals in the tropics published by the Faculty of Veterinary Medicine, University of Ibadan, Ibadan, Nigeria. It is published quarterly with the first volume appearing in 1983.

Analysis

The total number of contributions in the ten volumes is 229 which purely consist of research articles.

Distribution of Publication per Year

Table 1 - Distribution of publication per year

YEAR	No. of Articles	Percentage
2000	40	17.46
2001	42	18.34
2002	39	17.03
2003	21	9.17
2004	20	8.73
2005	15	6.55
2006	16	6.98
2007	20	8.73
2008	5	2.18
2009	11	4.8



Total	229	100
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In table one, the details regarding the distributions of the 229 articles published from 2000–2009 are given. The table shows that maximum number of articles published in 2001 was the highest, that is, 42, representing 16.34% of the total published articles. This is followed by 40 (17.46%) articles in 2000 and 5 articles representing 2.2% is the lowest number of articles published in 2008. The journal publishes on an average of 23 articles per year.

Authorship Pattern

Table 2 - Authorship pattern

YEAR	NO. OF AUTHORS							TOTAL
	1 Author	2 Authors	3 Authors	4 Authors	5 Authors	6 Authors	7 Authors	
2000	7	12	8	7	4	1	1	40
2001	7	10	11	10	3	1	0	42
2002	3	8	12	12	4	0	0	39
2003	3	7	7	1	1	2	0	21
2004	1	8	7	2	0	1	1	20
2005	3	5	1	2	1	0	3	15
2006	0	3	4	4	4	1	0	16
2007	2	6	7	2	1	2	0	20
2008*	1	1	2	1	0	0	0	5
2009*	0	5	6	0	0	0	0	11
Total	27	65	65	41	18	8	5	229

*Two issues were missing

Table 2 shows the authorship pattern of the articles published during the period under study. The largest number of articles had two and three authors (28.3%). This is followed by four authors 41 (17.9), single authors 27 (11.7%) and five authors with 18 (7.8%) of the total articles.

Authorship Pattern per Year

Table 3 - Authorship pattern per year

Authorship	Year										Total	%
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
Single Author	7	7	3	3	1	3	0	2	1	0	27	11.8
Joint Authors	33	35	36	18	19	12	16	18	4	11	202	88.2
Total	40	42	39	21	20	15	16	20	5	11	229	100

Table three shows that out of the 229 articles, single authors contributed 27(11.8%) while the rest 202 (88.2%) articles were contributed by joint authors. It can be seen that author tend towards collective writing and research work is group oriented.



Length of Articles

Table 4 - Length of Articles

PAGES	YEAR										TOTAL	%
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
1-3	5	8	4	0	3	1	0	1	0	1	23	10
4-6	18	17	19	9	11	8	10	9	2	6	109	47.5
7 & Above	16	15	15	12	6	7	3	10	3	5	97	42.3
Total	39	40	38	21	20	16	13	20	5	12	229	100

Most of the articles, 109 (47.5%) are 4-6 pages long, followed by 97 (42.3%) articles with 7 and more pages and the remaining 23 (10%) have the length of 1-3 pages.

Referencing Characteristics

Table 5 - Articles and references

Category	No. of Contributions	%
With Reference	226	98.7
Without Reference	3	1.3
Total	229	100

Table 5 shows the number of articles with and without references. Nearly all articles contributed (98.7%) have references.

Forms of Documents and their Citation

Table 6 - Forms of Documents cited

Forms of Document	Total No. of Citation	%
Journals	2,493	64.4
Books	1066	27.5
Conferences/seminars	157	4.1
Dissertations	60	1.6
Web	32	0.8
Others	60	1.6
Total	3,868	100

Various kinds of published documents are used by researchers during the course of their work. These documents are in the form of books, journals or published literature like reports, conference proceedings, symposia, web, etc. Literature from these sources is being cited by the researchers as per their use and needs. Table 6 shows that out of the total of 3,868 citations, 2,493 (64.4%) are based on journal publications followed by books (1066). It could be seen in table 6 also that researchers contributing articles to this journal have not fully embraced web materials as on 32 (0.8%) web articles are cited out of the 3,868 articles.

Finding and Conclusion



The *Tropical Veterinarian* is a prominent journal in the Nigerian veterinary discipline. The journal published 229 articles during the period under study. The maximum number of contributions comes from joint authors with 88.2%. The study revealed that most of the articles (64.4%) contain references, which include journals. The study also revealed that researchers in this field are yet to embrace fully electronic sources.

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