CHAPTER - 3

SCOPE, OBJECTIVES AND METHODOLOGY

1. Introduction

Bibliometrics is a quantitative study based on statistical and mathematical methods. This study is helpful in management of scientific literature measuring the utility of periods and relationship between journals and subject area and also in knowing the most productive contributors in a given field. Due to interdisciplinary nature of research and trends towards specialization, librarians and information scientists are facing great problems in acquisition, organization and dissemination of information. Therefore, to eliminate these problems. There is need of such types of study i.e. bibliometric study.

2. Scope

Literature on “Diabetes” during 2002-2004. A Bibliometric study. So far no study on this specific subject has been done particularly by the students of the department of Library and information Science. The author has been choosen the year 2002-04, due to the availability of Index Medicus in the printed form. This Index Medicus is available in the Library of Medical Science.

3. Objectives

The present study aims at identification and describing some of the characteristics of the literature published in the field of “Diabetes” over the period of 2000 years, 2003 to 2004 with a view to identify the place, year,
More precisely the main objectives of the present study are:

(a) To know the eminent authors in the field of ‘diabetes’.

(b) To prepare a ranked list of journals and to find out the core journals in the field of ‘Diabetes’.

(c) To know the most productive country in the field of Diabetes.

(d) To know the most common form of document in given literature.

(e) To know the language(s) in which the most of literature on the subject has been published.

(f) To know the rate of collaborations research.

(g) To find out the chronological distribution of items.
4. Methodology

The methodology of Bibliometrics can be shown through the following flow chart:

- Selection of Source Document
- Collection of Data
- Analysis and Interpretation of Data
  - Ranking of Periodicals
  - Counting wise distribution of items
  - Subject wise distribution of items
  - Year wise distribution of items
  - Language wise distribution of items
  - Form wise distribution of items
  - Ranking of Authors
- Application of Bibliometric Laws
- Conclusion

Research in any area calls for systematic methodologies. The methodology for conducting the bibliometric study has been diagrammatically represented below:
4.1 Selection of source document

The first step in this study is to select the source document from which data is to be collected for this purpose. Index medicus which is published from NLM. Washington. U.S.A. since 1964 has been consulted for the purpose of collection of data.

3.2 Collection of Data

From the 3 volume of Index Medicus i.e., 2002, 2003, 2004, 2978 reference on the subject “Diabetes” has been collected on 5”x3” catalogue cards. Each contained information about author, title, name of periodical, year, place of publication, language and form of document.

4.3 Analysis and Interpretation of Data

All 2978 references (card) were arranged and we arranged in order to complete the following studies.

4.3.1 Ranking of Periodicals

The main objective of this study is to identify the core periodicals containing the research literature on ‘diabetes’. For this purpose, a ranked list of periodicals was prepared.

4.3.2 Country wise Distribution of Items

It is done to identify the place of origin of documents, which is given in index. medicus. The entries were grouped on the basis of their place of origin. They were then counted and worked in a table.

4.3.3 Year wise Distribution

It is useful to know the occurrence of source documents. This type of study reveals the number of works in a particular year in which the most of the
study is conducted. For which purpose a table showing year wise distribution has been prepared.

4.3.4 Language wise Distribution

For the purpose of language wise analysis, the entries were grouped according to their language of origin. After this, they were counted and then a ranked list of languages has been prepared.

4.3.5 Form wise Distribution

There are variety of forms of documents like reviews, case study, newsletter, bulletin, patents, articles, reports etc. The information regarding the form was collected from Index Medicus tabulated to find out the most dominant form of literature.

4.3.6 Ranking of authors

It is done to know the most productive contributors in the subject. For the purpose of ranking of authors the information about all the authors was retrieved, arranged and tabulated in the order of decreasing frequency of their contribution.

4.3.8 Application of Bibliometric

The whole study depends upon the application of bibliometric laws such as Lotka, Bradford and Zipf’s laws. These laws were applied to the analyzed data to check their validity.