Chapter-1

Methodology and Purpose of the Study

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Chapter 1
Methodology and Purpose of the Study

Increasing expenditure on higher education, growth in the number of researchers and limitations in research funding constitute a major hurdle in formulating research policy. Among both scientists and economists, it is widely accepted that the research, which is, performed in academic and governmental research institutions and supported by government, is a driving force behind high technology and economic growth. The premise that academic research makes an important contribution to economic growth is well accepted across the whole spectrum of the society. One major supporting argument to the above is the statement of Bill Clinton who stated that scientific advances are the wellspring of technological innovations. The benefits are seen in economic growth, improved health care, and many other areas.

Research progress is realised by researchers who group together to study research topics and who build on the work of the other people. It is in the way that an international community of researchers comes into being, which keep each other informed on their research results. These results need to be published and submitted for evaluation to professional colleagues. These publications are used as the yardstick for measuring the quality and quantity of research done in country.

Now technology is a major contribution to economic growth and research and development constitute the soul of technology. Goal oriented research and technology driven process improvement has helped to reduce cost in terms of economizing on materials or varying the material inputs or using totally new materials. These aspects of technical progress through adopting of newer technologies and creation of new products are thus directly related to overall wealth creation. Reflecting the change perception of knowledge in wealth creation, research and development is no longer the preserve of academic institutions.
1.1. Relevance of the Study

Libraries and information centers play a vital role in the socio-economic development of a nation. The accelerated growth in research and development activities in science and technology and other fields of human endeavor contributed to a phenomenal growth in the universe of subjects, resulting in information explosion and interdisciplinary approach to research during the past seven-eight decades. These developments generated new demands on the services offered by libraries and information centers.

Journal literature is an important source of information to disseminate new ideas for research and development work. The main aim of any library is to satisfy the information needs of users within a limited allocated budget, but in this world of information explosion it is a challenging job to any librarian to select the right kind of reading materials.

In the present age, when the volume of scientific literature is increasing immensely everyday and prices of journals are spiraling high; a librarian faces acute difficulties in formulating the subscription list of journals, which ultimately serves the researchers. This becomes all the more problematic because of the inelastic budgetary provisions. Realising these factors no single library can afford to acquire every document published in the field of specialization it serves or to incur heavy expenditure on strange of all publications required. Hence, limited and selected procurement of journals seems to be one of the practical remedies. Under the circumstances compilation of ranked lists of journals with the help of reference cum citation analysis can be a useful guide for the librarians in subscribing the journals in a particular subject with the consideration that, the more a journal is cited the more popular and important the journal becomes in circulation and use in that context. Sengupta\(^5\) was the first to do such an analysis from the Indian Scientists viewpoint in the field of biomedical science.

Rising journal subscription costs, shrinking budget allocation, and lack of space for current library holdings have resulted in number of 'document use'
studies. Librarians have been trying to determine library collection development policies, which will make optimum use of money and space available while meeting the current and future needs of the library users. The exponential growth of publications, diversified nature of the users requirement, inter and multidisciplinary nature of research, escalating cost of documents just opposed with the limited financial resources are forcing librarians to think more and more in terms of quantitative techniques for decision-making purpose. This study is such an attempt towards understanding the information use pattern researchers of 'Economics' based on a citation Study of their doctoral dissertations. A number of studies have been conducted in the developed countries as well as in India to understand the pattern of materials used by the social scientists for their research purposes. However such attempts in interdisciplinary subjects like Economics are very few. All these factors motivated to undertake this study.

1.2. Objective of the Study

The main objectives of the study are to examine, identify and analyse the structural forms, and characteristics of the corpus of literature. An attempt is made to identify—

1.2.1. Bibliographic forms of literature,
1.2.2. Language-wise distribution,
1.2.3. The nature of authorship pattern,
1.2.4. Subject-wise break up,
1.2.5. Number of citations per dissertation,
1.2.6. Ranking list of journals,
1.2.7. Chronological distribution and frequency of cited journals,

1.3. Scope of the Study

The role of research in several fields of economics has greatly increased in modern times. Research, as an aid to economic policy, has gained added importance, both for government and business. Government's budgets rest in part on an analysis of the needs and desires of the people and on the availability of revenues to
meet these needs. The cost of needs has to be equated to probable revenues and this is a field where research is most needed. Through research we can devise alternative policies and can as well examine the consequences of each of these alternatives.

An attempt has been made in this doctoral dissertation to scale the Ph.D. programs in economics so far completed in the Madhya Pradesh universities in terms of types and areas of research, productivity of universities etc.

Post-independence period witnessed proliferation of universities in India. There are in Madhya Pradesh now 14 universities including two Agricultural Universities and one Music & Arts Universities. These are shown in Table – 1.3.1

Table – 1.3.1

Madhya Pradesh Universities and their Establishment Year’s

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Universities</th>
<th>Establishment Years</th>
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<tbody>
<tr>
<td>1.</td>
<td>Dr. Hari Sing Gour Vishwavidyalaya, Saugar</td>
<td>1946</td>
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<tr>
<td>2.</td>
<td>Rani Durgawati Vishwavidyalaya, Jabalpur</td>
<td>1957</td>
</tr>
<tr>
<td>3.</td>
<td>Vikram University, Ujjain</td>
<td>1957</td>
</tr>
<tr>
<td>4.</td>
<td>Jivaji University, Gwalior</td>
<td>1964</td>
</tr>
<tr>
<td>5.</td>
<td>Devi Ahilya Vishwavidyalaya, Indore</td>
<td>1964</td>
</tr>
<tr>
<td>6.</td>
<td>Pt. Ravishankar University, Raipur</td>
<td>1964</td>
</tr>
<tr>
<td>7.</td>
<td>Awadhesh Pratap Singh University, Rewa</td>
<td>1968</td>
</tr>
<tr>
<td>8.</td>
<td>Barjatullah Vishwavidyalaya, Bhopal</td>
<td>1970</td>
</tr>
<tr>
<td>9.</td>
<td>Guru Ghasidas University, Bilaspur</td>
<td>1983</td>
</tr>
<tr>
<td>10.</td>
<td>Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur</td>
<td>1964</td>
</tr>
<tr>
<td>11.</td>
<td>Indira Gandhi Krishi Vishvidyalaya, Raipur</td>
<td>1987</td>
</tr>
<tr>
<td>14.</td>
<td>Indira Gandhi Sangeet Vishwavidyalaya, Khairagarh</td>
<td>1956</td>
</tr>
</tbody>
</table>
Bibliometric analysis for citations collected from the doctoral dissertations in economics accepted by eight universities of Madhya Pradesh, has been carried out to determine the use pattern of the literature by the researchers. Bibliometric studies are used to identify the pattern of publications, authorship, citations and secondary journal coverage in the hope that such regularities can give an insight into the dynamic of the area under consideration. This consequently leads to a better organization of literature.

1.4. Hypothesis of the Study

Research in general means is interpretation of old ideas and theories in the light of new ones and new discoveries. The existing laws, theories and principles are to be applied to the problem on which research is intended. A hypothesis is a tentative generalisation, the validity of which has to be tested. It is defined as “a proposition, which can be put to test to determine validity”. In the initial stage a hypothesis may be a guess on an imaginative idea which becomes the basis for action on investigation.

The following hypotheses formulated in the study are—

1. Books are the major documents used by researchers in economics.
2. The research output in economics is increasing in the recent years, reliance on traditional topics.
3. The universities established earlier have advantages in getting more number of researches.
4. The scholars use old volumes of journals instead of current one.
5. Indian journals are most effective means of communication pattern.
6. Citation rate is increasing, as more literature in any field is now available.
7. Team research is the trends in writing research papers i.e. multiple authors are more cited than single authored publications.
8. The research scholars have concentrated themselves in their own area for research work.
1.5. Methodology

Methodology applied in the present study involves the following—

1.5.1 Literature survey
1.5.2 Bibliometric analysis

1.5.1. Literature Survey


The researcher made personal visit to Madhya Pradesh universities libraries, in order to collect information regarding the research carried out in economics. The main aim was to collect data from cited references in the doctoral dissertations and specifically to identify—

(i) The nature of the subject selected for research,
(ii) The type of documents used,
(iii) The range of citations used,
(iv) The language of the reading materials used.

1.5.2. Bibliometric Analysis

Bibliometric analysis is the application of mathematics and statistical methods to books and other records of communications. In other words it is the quantitative treatment of the properties of bibliographic units. Bibliometric study was conducted on the basis of the information collected from the theses available for reference from the Madhya Pradesh universities.
1.6 Bibliometric Technique

Bibliometric techniques have been gaining importance and recognition in their application to real situation in library and information resources management. A vast amount of literature has been produced on bibliometric investigation, during the last four decades. Citation techniques are becoming more and more popular to identify the characteristics of subject literatures. The investigations of such kinds of studies are found to be helpful and useful to manage the information resources and services in special libraries and information centers.

Bibliometrics as a technique has extensive applications in identifying the research trends in a subject, trends in authorship and collaboration in research, core journals in a discipline, obsolescence and dispersion of scientific literature and useful in estimating the comprehensive of secondary journals and studying the author productivity and many other features.

The data collected in the study are analyzed and interpreted from awarded Ph.D. theses in Madhya Pradesh universities in economics. Analysis of the theses and citations were scrutinized and classified on the basis of common characteristics and analysed using bibliometric techniques to achieve the desired goal.
Bibliographical References


