CHAPTER – V

SUMMARY AND CONCLUSIONS
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5.0 INTRODUCTION

The main function of the University library is to collect and organise the records of knowledge to support teaching and research programmes. The objective of any library is to satisfy the information needs of users within a limited allocated budget, but in this word of information explosion is a challenging job to any librarian to select the right kind of reading materials for judicious selection.

Citation analysis can help libraries to understand their local community’s literature usage patterns, and to identify the most influential journals to subscribe. Collection development can be assessed by bibliometrics data on both the relative influence of the journal on the user community, and on the publication and citation patterns of institution’s researchers themselves. Librarians have to a play role in observing, tracking, and validating institution’s research performance trends by tracking publishing output and impact. In this study, citation analysis is employed in studying Ph.D. thesis submitted to the Department of Economics, Sri Venkateswara University, Andhra University and Osmania University, during the period (1955 – 2010) with a view to find out citation practice in the thesis. Citation analysis is a part of bibliometric studies.

The bibliometric studies are frequently used to assess research publication and to generate information that can be used by policy makers and experts. The study has proven to be useful tool in the assessment of research publications in Economics. The present study illustrates with facts and figures research publications in Economics.

5.1 OBJECTIVES

The following are the objectives of the present study:

1. To know the various sources of information consulted by the researchers in Economics;

2. To observe the nature of authorship pattern in the literature of Economics;
3. To examine the core journals of Economics;

4. To study the distribution of citations by subject, country of origin and language;

5. To examine the applicability of Bradford’s Law of scattering to the pattern of journals used by the researchers in Economics.

6. To find the obsolescence of literature used.

7. To assess the availability of the cited journal articles and journals in the libraries of Sri Venkateswara University, Osmania University and Andhra University.

5.2 HYPOTHESES

The following hypotheses have been formulated, based on the objectives of the present study:

1. Journals are the mostly cited sources by the researchers in the field of Economics.

2. Researchers of Economics prefer Indian journals rather than foreign journals.

3. The half-life value of book citations is high when compared to journal citations in Economics.

4. Single authorship is high when compared to Collaborative authorship in the field of Economics.

5. The cited journal literature in Economics is published by developing countries.

6. The literature of Economics is found predominantly in English language.
5.3 COLLECTION OF DATA

The present study is concerned with the analysis of citations appended to the doctoral theses accepted in the field of Economics for the award of doctoral degrees by Sri Venkateswara University, Tirupati, Osmania University, Hyderabad and Andhra University, Visakhapatnam.

The scope of the study is limited to two major sub-fields of economics viz., Microeconomics and Macroeconomics.

Two hundred and sixty eight Ph.D. theses are available in the University libraries of Sri Venkateswara University, Tirupati, Osmania University, Hyderabad and Andhra University, Visakhapatnam. A total of 41,790 citations, appended to these theses, form the basis for the study.

The information relating to each citation i.e., number of authors bibliographic form, name of the journal, subject, country of origin, language, name of the publisher and the availability of references regarding the country, language and the subject of the journal are obtained from ‘Ulrich’s International Periodicals Directory’ and recorded on the reference cards of standard size of 12.5 X 7.5 cm. The data is fed into the computer using MS-Excel software and the statistical package for Social Sciences (SPSS) for analysis

5.4 DISTRIBUTION OF CITATIONS

The analysis to review how the specialists in bibliometrics address the evaluation of the scientific performance of research units. There are two types of output indicators. Firstly, there is the publication share during a given time period. Secondly, when there is information on the citations received by these publications, two other indicators are typically added: the share of total citations, and some measure of the citation impact of the average paper. When the only information assumed to be available is the homogeneous field to which each unit’s publications belong and the number of citations they receive, the cumulative percentages is a good overall indicator of scientific performance.
Journal literature is the most preferred source of information compared to other sources for the economics, books, dissertations and theses secured second and third places respectively. Similar results are also noticed in the fields of micro and macroeconomics in the distribution of citations or different bibliographic forms in economics. It is evident from the table that the books contribute the highest number of citations accounting for 47.03% of total citations. Journals secured second highest number of citations accounting for 41.99% of total citations. The third highest number of citations are dissertations and theses accounting for 2.09%. The fourth highest number of citations are monographs accounting for 1.84% of total citations. Least number of citations are made through newspapers (0.25%).

English language occupies the first place with 97.56% of the total citations. The results confirm that the English and Czech language occupies Second place with 0.33% and cumulative number of citations are 40995. Unidentified Languages contributed nearly 713 number of citations in economics world- wide and its percentage is 1.71.

Country-wise scattering of citations in Economics. It is obvious from the table that the researchers in Economics cited the documents originating from 30 countries of the world.

It is keenly observed from the table that USA alone covers about 53.40% of total citations in Economics followed by United Kingdom 29.76 %, India 6.63% and Canada 3.37% respectively. Australia (3.18%), Iran (0.21%) and Switzerland (0.02%) are some of the countries which have contributed some considerable amount of citations. The remaining citations are scattered among 24 other countries.

It is evident from the thesis the agricultural economics 4578 (10.95%), from economics (Pure) 3420 (8.18%) and from behavioural economics 3214 (7.69%) and from business economics 2431 (5.82%) references have been selected majorly. The references of business economics, economy and society, GDP, Indian economics, International economics, International Trade around one thousand and above were referred. In around 1860 (4.45%) references from unidentified and unclassified texts.
5.5 AUTHORSHIP PATTERN AND COLLABORATIVE RESEARCH

The distribution of citations according to number of authors in the field of Economics, the research and publication of theses by multiple authors. The multiple authorship patterns in the field of economics have a profound influence of quality contributions. The single authorship is more in number when compared to multi-authored ship in economics. That means single author citations are more in number accounting for 72.87% in economics as a whole. The single authored paper in micro economics is 68.35%. In the case of macroeconomics single authored papers is 75.23%. Hence it is concluded that single authored ship is more when compared to multiple authored ship.

5.6 RANKING AND SCATTERING OF JOURNALS

Rank lists of journals are very useful in the acquisition of periodicals in the library. Ranking of journals could also help in evaluating the importance of journals indicating their popularity among authors for writing their articles. It gives the evidence of author’s preferences of one journal over others showing its usefulness in their fields of interest.

It is obvious from the table that the journal citations cited by research scholars in Economics are scattered in 362 journals. Among them “Indian Journal of agricultural Economics” occupies first rank for being cited more number of times with 3.85% of citations, followed by “Indian Economic Journal”(3.442%), and “American Economic Journal”(3.191%).

The first 10 journals in the rank list contributed nearly 25.13 % of total journal citations. The first 33 journals in the rank list contribute nearly 50.01% of total journal citations. These 33 journals can be considered as the most cited journals by the researchers. It is also obvious from the table that 75.15% of total citations are contributed by the first 87 journals in the rank list. The remaining 24.85 % citations are scattered among 275 journals.

The “Indian Journal of Agricultural Economics”, stood top in rank for having 676 citations being utilized by the researchers in Economics. Whereas “Indian
Economic Journal” and “American Economic Journal” stood next in the consequent ranks for being utilized 604 and 560 citations respectively by the researchers.

The researchers have cited a total of 244 journals in Microeconomics. The journal “Indian Journal of Agricultural Economics” occupies the first place being cited more number of times with 6.86% of total journal citations, followed by “Indian Economic Journal” (3.03%), “Review of Economic Studies”(1.81%), “Journal of Economic Literature” (1.74%), “Journal of Economic Theory”(1.71%). The first 14 journals in the rank list cover more than 25.56 % of total journal citations. The first 43 journals cover nearly 50.37% of total journal citations. The first 99 journals cover 75.08 % of total journal citations. The remaining 24.93 % of citation are scattered among 145 journals.

It is observed form the table that a total of 288 journals are cited by the researchers in Macroeconomics. It is evident from the table that the “American Economic Journal” occupies the first place with 4.05 % of total Journal citations, followed by “Indian Journal of Agricultural Economics” 3.93%, “Indian Economic Journal” 3.66%, “American Journal of Agricultural Economics” 3.440%, “Journal of Political Economy” 2.65%. The first 9 journals cover more than 26.65% of total cited journal citations. The first 27 journals cover more than 50.48% of total cited journals. The first 72 journals cover 75.11% of total cited journals. The remaining 24.89% of journal citations are scattered among 154 other journals.

It is evident from the table that the “Indian Journal of Agricultural Economics” occupies the first rank with 4.99% of total journal citations, followed by “American Economic Journal” (4.33%) and “Indian Economic Journal” (3.25%). The first 10 journals cover nearly 26.57% of total cited journal citations. The first 26 journals in the rank list cover nearly 50.50% of total journal citations. The first 88 journals in rank list cover more than 75.19% of total journal citations. The remaining 24.81 % of journal citations are scattered among 230 other journals.

It is observed from the table that a total of 163 journals are cited by them it is evident from the table that the “Indian journal of Agricultural Economics” occupies the first place with 4.56% of total journal citations, followed by “Indian Economic
Journal” (4.19%) and “American Economic Journal” (3.34%), “Review of Economic Studies” (2.96%)%, “American Economic Review” (2.60%). The first 9 journals in the rank list cover more than 25.01% of total journal citations. The first 31 journals in the rank list cover more than 50.75% of total journal citations. The first 65 journals in the rank list cover nearly 75.48% of total journal citations. The remaining 24.52% of journal citations are scattered among 94 other journals.

It is observed from the table that a total of 282 journals are cited by them. It is evident from the table that the “Indian Journal of Agricultural Economics” (5.19%) of total cited journals, followed by “American Economic Journal” (4.78%), “Indian Economic Journal” (2.83%), “American Journal of Agricultural Economics” (2.61%). The first 9 journals in the rank list cover more than 26.17% of total journal citations. The first 29 journals in the rank list cover more than 50.48% of total cited journals. The first 96 journals in the rank list cover nearly 75.07% of total journal citations. The remaining 24.94% of the journal citations are scattered among 186 other journals.

It is evident from the table that the “American Journal of Agricultural Economics” got the first rank with (3.85%) of total journal citations, followed by “Indian Journal of Agricultural Economics” (3.32%), “Indian Economic Journal” (2.55%), “Journal of Political Economy” (2.48%). The first 11 journals in the rank list cover nearly 26.27% of total journal citations. The first 39 journals in the rank list cover more than 50.49% of total journal citations. The first 98 journals in the rank list cover 75.17% of total journal citations. The remaining 24.83% of journal citations are scattered among 204 other journals.

It is evident from the table that the “Indian Journal of Agricultural Economics” got the first rank with 2.81% of total journal citations, followed by “American Economic Review” (2.65%), “Journal of Economic Literature” (2.43%), “Journal of Political Economy” and “Journal of Labour Economics” (2.27%), “Indian Economic Journal” (2.22%). The first 13 journals in the rank list cover nearly 25.91% of total journal citations. The first 41 journals in the rank list cover more than 50.62% of total journal citations. The first 79 journals in the rank list cover nearly 75.23% of total journal citations. The remaining 24.77% of journal citations are scattered among 70 other journals.
It is evident from the table that the “American Journal of Agricultural Economics” secured the first rank with 4.998% of total journal citations, followed by “Indian Journal of Agricultural Economics” (3.610%), “Indian Economic Journal” (2.746%), “Review of Economic Studies” (2.623%) and “Journal of Political Economy” (2.592%). The first 9 journals in the rank list cover nearly 25.023% of total journal citations. The first 34 journals in the rank list cover nearly 50.478% of total journal citations. The first 85 journals in the rank list cover more than 75.285% of total journal citations. The remaining 24.715% of journal citations are scattered among 108 other journals.

It is observed from the table that a total of 274 journals are cited by them. It is evident from the table that the “Indian Economic Journal” got the first rank with 4.758% of total citations, followed by “American Journal of Agricultural Economics” (2.587%), “Journal of Political Economy” (2.521%), “Indian Journal of Agricultural Economics” (2.478%), “American Economic Journal” (2.412%), the first 11 journals in the rank list cover more than 25.411% of total journals. The first 40 journals in the rank list cover more than 50.121% of total journal citations. The first 99 journals in the rank list cover nearly 75.093% of total journal citations. The remaining 24.907% of journal citations are scattered among 175 other journals.

It is evident from the table that the “Indian Economic Journal” occupies the first rank with 6.048% of total journal citations, followed by “Journal of Economic Literature” (2.695%), “Journal of Political Economy” (2.635%), “American Journal of Agricultural Economics” (2.515%), “Indian Journal of Agricultural Economics” (2.455%). The first 9 journals in the rank list cover more than 25.389% of total citations. The first 31 Journals in the rank list cover nearly 50.359% of total journal citation. The first 68 journals in the rank list cover nearly 75.270% of total journal citations. The remaining 24.73 % of journal citations are scattered among 141 other journals.

It is evident from the table that the “Indian Economic Journal” secured the first rank with 4.012% of total citations, followed by “American Journal of Agricultural Economics” (2.629%), “American Economic Journal” (2.525%), “Indian Journal of Agricultural Economics” (2.490%), “Journal of Political Economy” (2.456%). The first 12 journals in the rank list cover nearly 25.908 % of total journal citations. The first 40 journals in the rank list cover more than 50.190% of total journal citations.
The first 92 journals in the rank list cover more than 75.302% of total journal citations. The remaining 24.698% of journal citations are scattered among 96 other journals.

In case of all the subjects that is Economics, Macroeconomics and Microeconomics. Chi-square value is greater than the table value. Hence it is concluded that dissertations of economics in Andhra University, Sri Venkateswara University and Osmania University are significant at 5 per cent level.

The data has been used to test Bradford’s Law of scattering and the Bradford’s bibliography for the journal citation in economics and its sub-disciplines viz., Microeconomics and Macroeconomics. The verbal formulation of Bradford’s Law is also applied and it is found that the literature use pattern by economics does not fit the Bradford’s Law of scattering. Similar results are found in the fields of micro and macroeconomics. The non-applicability of Bradford’s Law, when applied to the scattering of journal literature in economics as a whole and its sub-fields. Micro and macroeconomics may be due to the heavy concentration of citation in a few journals.

The basis for choosing the three zones is that the variation is found to be minimum among the number of citations in each zone. 16 journals are the most productive journals devoted to economics sharing 4.42% of total journals. The second zone is represented by 48 journals which share 13.26% of total cited journals and the last zone is represented by 298 journals which share 82.32% of total cited journals. The third zone has maximum journals of total citations. Hence the journal distribution as per the Bradford’s Law reveals the ratio as 16:48:298. The ratio of the number of journal titles in the three zones in the field of Microeconomics is 16:30:198 and Macroeconomics is 10:27:251. It observed from the above ratios that the number of journal titles in each zone is not increasing geometrically. Hence it is concluded that the journal usage pattern in the discipline of economics and its sub-fields does not satisfy the verbal formulation of Bradford’s law of scattering.

The country-wise distribution of cited journals in Economics. As explained by many previous citation analysis studies, it is a well known fact that INDIA, USA and UK are the main producers of journals. India ranks first by publishing 89 journals with
24.59% of cited journals. USA got second rank with 81 journals with 22.38% and followed by United Kingdom with 58 journals with 16.02%. The above three countries produced nearly 75% of cited journals. The remaining 25% of journals are from 21 other countries.

Most of the cited journals of Economics (61.05%) are in English language. Other languages journals constitute (6.35%) and followed by Hindi (4.42%) of the total cited journals respectively. The remaining journals are published in Arabic (2.49%), French and Japanese (1.66%). The above five language journals cited nearly 70% of total cited journals. The remaining 30% of the cited journals are published form other languages.

5.7 OBsolescence of literature

The Obsolescence implies a relation between use and time and the effect of time which are effects of time past, time present and time future. Studies of aging or obsolescence of documents commonly assess the decline in the use of a representative set of documents overtime. It is also important to note that growth in the literature of a particular field plays a great role in the age distribution.

It is observed from the table that there are nearly 17548 citation in journals of different age group. It is evident from the table that maximum citations in journals are between the age group of seven to twenty one. Seventy percent of the journal citations are twenty four years or less in age. This shows the researchers in Economics mostly cited the articles published in the latest journals. It is observed that from the table that 25% of book citations are 11 years or less than 11 years old. It is also observed from the table that the 50% of book citations are 29 years or less than 29 years old. Seventy five percent of book citations are 57 years old.

5.8 Availability of Journal Literature

The out of 8938 journal citations cited by researchers of Sri Venkateswara University, 3469 (38.81%) citations are available in Sri Venkateswara University Library. It has been found out that of 445 total cited journals, 318 journals are available in Sri Venkateswara University Library. It can be observed from the study
that the availability of cited journal literature for the researchers in Microeconomics is compared to the Macroeconomics. In total S.V. University Library is satisfying most of the requirements of researchers in Economics.

It shows out of 10072 journal citation cited by researchers of Osmania University Library in Economics, 3557 (38.29%) citations are available in Osmania University Library. That means Osmania University Library is meeting most of the requirements of researchers in Economics. It has also been found that out of 342 total cited journals, 302 journals are available in Osmania University Library.

It is evident that out of 7792 journal citations cited by researchers of Andhra University in Economics 2940 (37.73%) journal citations are available in Andhra University Library. Hence, Andhra University Library is meeting most of the requirements of researchers in Economics. It has also found that out of 322 cited journals, 274 of journals are available in Andhra University Library.

5.9 TESTING OF HYPOTHESES

Hypotheses number one states that: Journals are the mostly cited sources by the researchers in the field of Economics. This was put to test and it is found to be true. It is evident from Table-4.1 that the journals contribute the highest number of citations.

The second hypothesis states that: Researchers of Economics prefer foreign journals rather than Indian journals. This was put to test and it is found to be true. It is evident from Table 4.23 that most of the journals cited by the researchers of Economics are foreign journals.

The third hypothesis states that: The half-life value of book citations is high compared to journal citations in Economics. This was put to test and it is found to be true. It is evident from Table 4.48 that the half-life value of book citations is high compared to journal citations.

The fourth hypothesis states that: single authorship is high compared to Collaborative authorship in the period of study. This was put to test and it is found to
be true. It is evident from Table 4.13 that the single authorship is high compared to collaborative authorship.

The fifth hypothesis state that: The cited journal literature in Economics is published by developing countries. This was put to test and it is found to be true. It is evident from Table 4.42 that most of the journal literature is published by developing countries.

The sixth hypothesis states that: The literature of Economics is found predominantly in English language. This was put to test and it is found to be true. It is evident from Table 4.4 that most of the literature of Economics is published predominantly in English language.

5.10 SUGGESTIONS

In the following paragraphs, a few suggestions are put forward by the investigator:

The present investigation is based on the citations cited in Ph.D. theses in Economics accepted by Sri Venkateswara University, Tirupati; Osmania University Hyderabad; and Andhra University, Visakhapatnam. Similar type of investigations can be carried out covering the theses in Economics from other Universities also, so as to generalize the findings of the study and gain an in-depth knowledge of the characteristics of the literature used by the researchers in the field of Economics.

Similar types of studies can also be carried out based on the theses submitted to Indian Universities in the other subjects. This would help in gaining an in-depth knowledge of the characteristics of the literature used by researchers in various disciplines.

It is evident from the study that 45.00%, 29.01%, and 25.99% of journal references cited by the researchers of Sri Venkateswara University, Tirupati, Osmania University Hyderabad; and Andhra University, Visakhapatnam in Economics are available in their respective libraries. For the remaining 55%, 70.99% and 74.01% of journal references, the researchers are depending on research supervisors, professional
colleagues, Internet and other libraries. Hence, it is suggested that the necessary steps may be taken by the libraries for improving their collection in Economics.

Sri Venkateswara University, Osmania University and Andhra University can take necessary steps for setting up a consortium for purchase and management of e-journals, along with other libraries in their respective regions. This would also help in providing access to a larger number of journals through co-operative agreements for resources sharing. All the University libraries should be automated and networked. This would help the researchers not only in the field of Economics, but in all the fields of knowledge as well.

UGC also can help the university libraries in getting access to more number of print and e-journals through its various programmes.

It is hoped that this study will help the researchers in identifying the primary sources of information from which citations have been made. Rank lists of journals cited by the researchers of Sri Venkateswara University, Osmania University and Andhra University will also be helpful to the librarians in the selection and acquisition of the most useful journals within their limited budgets.