# Chapter V

**Summary and Conclusions**

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Chapter V
Summary and Conclusions

5.1. Introduction

The foremost objective of any research is either to extend the frontiers of knowledge or to bridge the gap in the existing knowledge. It may well signify by giving new sense to the accepted facts or discarding old accepted concepts in the light of recently acquired knowledge. In every case, each research has its own objectives which escort to definite results. From the results we develop conclusions and since research must go on in the global wisdom, one must try to identify areas of auxiliary research in the future.

Citation analysis study reveals an effective collection, organization and dissemination of information for the library administrator and research scholars. Librarians will be in a better position to put right their subscription strategy with their inadequate resources. This is possible by subscribing to a handful of core journals which cover maximum fragment of contemporary literature. Further, it is feasible to provide proper and pinpoint services. As well, the research scholars will be kept side by side of modern drift in their research field.

This study “Citation and Content Analysis of IBR” is carried out in a phase of qualitative relational content analysis. A qualitative relational content analysis took into account the frequency with which certain words or particular phrases occur in the text as a means of identifying the text's characteristics of messages. The qualitative relational content analysis identified a sample population of themes and concepts from the literature review.

5.2. Findings

5.2.1. Citation Analysis

5.2.1.1 Present research is a single journal study of IBR a law journal from 1986-2010 i.e. for 25 years quarterly issues and citations and content therein. All years having four issues except the year 1991 (Issue 2, April-June) which is not available and all Issues for the year 1993 are also not available. Hence, total 95 quarterly issues of 24 years considered for citation analysis. It is found that total 666 articles and 21080 citations are there.

5.2.1.2 Among the years from 1986-2010 of IBR maximum number of citations contributed in the year 1996 (7.05 %) and the year 1988 (1.91 %) has contributed minimum number of citations. Numbers of citations per year are not consistent.
5.2.1.3 Volume wise distribution of citation shows that volume XXIII is having the highest citations compared to others and it is also found that it stands approximately in the one third of the total volumes.

5.2.1.4 Quarterly publication of IBR shows that month wise issues of July-December have highest number of citations 6059 (28.7%) and month wise issue July-Sept. which is having lowest number of citations 283 (1.34%).

5.2.1.5 Though the frequency of the journal is maintained as quarterly but IBR does not publish quarterly, hence merged issues number 3&4 have highest number of citations.

5.2.1.6 Distribution of citations by Volume & Issue Number shows that Vol. XXIII and issue number 3&4 has highest number of citations whereas Vol. XV and issue number 3 has lowest number of citations. However, Vol. XVIII (3&4), XXI (2&3) and XXII (4) have not a single citation in whole issue. Vol. XVII (3&4) and XVIII (1) published jointly hence for the convenience of the analysis it is considered as Vol. XVIII. Vol. XVIII (issue number 2) and XX (issue number 1 to 4) are not available for analysis.

5.2.1.7 Distribution of citations by Volume & month shows that Vol. XXIII and month July-Dec. has highest number of citations whereas Vol. XV and month July-Sept. has lowest number of citations. However, Vol. XVIII (July-Dec), XXI (April-Sept) and XXII (Oct-Dec) have not a single citation in whole issue. Vol. XVII (July-Dec) and XVIII (Jan-Mar) published jointly hence for the convenience of the analysis it is considered as Vol. XVIII. Vol. XVIII (April-June) and XX (Jan-Dec) are not available for analysis.

5.2.1.8 Distribution of citations by year & month shows that year 1996 and month July-Dec. has highest number of citations whereas year 1988 and month July-Sept. has lowest number of citations. However, year 1991 (July-Dec), 1994 (April-Sept) and 1995 (Oct-Dec) have not a single citation in whole issue. Year 1990 (July-Dec) and 1991 (Jan-Mar) published jointly hence for the convenience of the analysis it is considered as 1991. Year 1991 (April-June) and 1993 (Jan-Dec) are not available for analysis.

5.2.1.9 IBR covers diverse set of articles. These articles are either having citations or not. They are organized and ranked for citing articles which depicted that Year 1990 is having highest number of citing articles whereas year 1998 is having highest number of non-citing articles.
5.2.1.10 Article having highest citation and article having lowest citation amongst all articles is mentioned from each volume amongst which highest citations are 272 and lowest citation is 1.

5.2.1.11 Among 24 years, year 1990 contains highest number of citations per article (C/A 108) and lowest citations per article is observed in the year 2001 (C/A 13.29).

5.2.1.12 Relative growth rate (RGR) is a measure to study the increase in number of publications and doubling time. It is a time required for publications to become double of the existing amount. The mean Doubling Time [Dt(P)] during first half (i.e. 1987 to 1998) is 3.96 which is increased to 15.55 from 1999 to 2010. This indicates that the rate of growth of publication is decreased and corresponding Doubling Time is increased.

5.2.1.13 Relative growth rate (RGR) is a measure to study the increase in number of citations and doubling time. It is a time required for citations to become double of the existing amount (i.e. 1987 to 1999) is 5.54 which have increased to 12.49. This indicates that the rate of growth of citation is decreased and corresponding Doubling Time is increased.

5.2.1.14 The IBR has preferred mostly the case and book citations. Out of the total citations 8252 (39.15%) belong to cases and 4381 (20.78%) are from book citations followed by Journal Articles 1619 (7.68%), Sections 1269 (6.02%), Miscellaneous 1135 (5.38%), Articles (One clause or paragraph of a legal document) 929 (4.41%), Report 700 (3.32%), Act 482 (2.29%), Journal 482 (2.29%), Periodicals 471 (2.23%), Article in Periodicals 328 (1.56%), and Website 292 (1.39%) are cited less as compared to case and book citations.

5.2.1.15 The year wise trend of types of documents cited indicated that from 1986 to 2010, the percentage of case and book citations are more than any other type of documents. The overall highest citation to cases is in volume XXX published in 2003 with 662 citations followed by 657 in volume XXI of 1994. Book (Mimeograph) and Souvenir is the least cited sources. It is also revealed that the year 1996 shaped highest citations whereas year 1988 shaped lowest citations.

5.2.1.16 Rank list of most cited documents discovers that Cases (8252) are cited mostly and acquired rank 1 followed by books (4381) at rank 2.

5.2.1.17 Types of publications cited (Volume-wise) shows that in all volumes cases cited more and conference proceedings cited least.

5.2.1.18 P-citation is an abbreviated form for print media citation. Composition of print citations shows that cases are mostly cited.
5.2.1.19 Year wise p-citations with its ranking reveal that sections and other document form acquire 1st rank in 1996. It also reveals that citation pattern differs from book form to case, sections, conference proceedings and other citations from 1986 to 2010.

5.2.1.20 E-citation is an abbreviated form of electronic citation. Websites are more cited by website article.

5.2.1.21 There are no e-citations from 1986 to 1997, 1999 to 2000 and 2010. It means that more than 50% years has p-citations only with a less trend to cite electronically.

5.2.1.22 P-citation (20756, 98.46%) is highly cited than e-citations.

5.2.1.23 There is negative correlation ($r = -0.0467$) between case and book citations during the period of study.

5.2.1.24 There is a trend of single authorship in IBR.

5.2.1.25 Near about $\frac{3}{4}$th of total citations are without author(s). This reveals that cases are cited more rather than author publications in IBR.

5.2.1.26 There is very less trend for four or more than four authors. Without authored citations are 15118 (71.72%).

5.2.1.27 Entire authorship pattern gets dispersed in year 2002 only.

5.2.1.28 Year 1996 having highest number of authorship pattern.

5.2.1.29 There is very less inclination towards joint authorship.

5.2.1.30 Vol. XXIX reflects all authorship patterns.

5.2.1.31 The value of group co-efficient for citations ($g_c$) lies in the range of 0.005 to 0.085.

5.2.1.32 The degree of collaboration among the co-authors is minimum (0.003) in articles written by two authored publication (0.08). Hence value of group co-efficient ($g_p$) for publication lies in the range of 0.003 to 0.08.

5.2.1.33 The “$g_c$” for different categories of co-authored citations indicates that the value of two authored citations increases with advancement of time.

5.2.1.34 The degree of Author’s collaboration ranges from 0.03 to 0.16.

5.2.1.35 Publication productivity by authors shows that, out of 5962 authors 3552 (59.58%) authors produced books followed by 1526 (25.60%) authors of journal article. Book is the most productive authorship document.

5.2.1.36 For both journal and book citation single authorship pattern is highly dominant.

5.2.1.37 Out of 5962 total authors there are 2728 core authors, out of which male authors are 2480 (90.91%) dominated on female authors 184 (6.74%) and Corporate authors 64 (2.35%). Masculine is the most governing gender.
5.2.1.38 There are a total of 2728 authors who contributed to IBR during 1986-2010. Baxi Upendra of India is the most leading contributor (110 contributions), followed by Iyer V. R. Krishna of India (83 contributions). Hence, the most productive author is Baxi Upendra.

5.2.1.39 More numbers of authors are available in lower rank compared to the upper ranks.

5.2.1.40 The productivity of authors is measured in terms of the number of times a particular author is cited during 1986-2010. Out of the total 6490 citations, minimum number (16) of authors is cited for ten times and maximum (1740) number of authors is cited only once. The well-known Lotka’s law as applied to authors’ productivity revealed that the observed percentage of authors tends to expected percentage of authors as predicted by applying Lotka’s equation. Henceforth, Lotka’s Law is satisfied.

5.2.1.41 Out of 2728 authors only 1090 citations have geographical information. To find out author’s state affiliation 1090 citations analyzed which resulted that author geographical citations have originated from 19 states. Delhi is the most productive state.

5.2.1.42 Volume wise State Rank List of Authors shows that Delhi state stood first for author’s production followed by Maharashtra state.

5.2.1.43 Out of 1619 citations of journal article single author (1388) is dominant to multi authors.

5.2.1.44 Multiple authors don’t reach their percentage proportion in two digits.

5.2.1.45 Single authored journal article citations are leading in frequency of occurrence in the journal “IBR” throughout the study compared to multi authored journal article citations. Authorship pattern for journal articles doesn’t get dispersed equally for years.

5.2.1.46 The highest average number of authorship is 1.99 in the year 2004 and lowest average number of authorship is 0.89 in the year 1989. Average number of authors per paper has also been increased from 0.98 to 1.15. Year wise trend for average authorship per paper is almost same.

5.2.1.47 The degree of collaboration of all years is having different mean value whereas for overall 24 years (1986-2010) degree of collaboration is 0.08. It increases from 0.02 to 0.17.

5.2.1.48 The overall single authored papers are much more than multi authored papers. It reveals that law field is heavily influenced by the solo research.
5.2.1.49 There are a total of 834 authors who contributed to IBR in the form of journal article publications during 1986-2010. Baxi Upendra of India is the most leading contributor (22 articles), followed by Galanter Marc of USA (17 articles).

5.2.1.50 Out of total 21080 citations only 1654 citations have country name mentioned in their bibliographic information. Out of 1654, international contributions in the journal are 564 (34.1%) while the National contributions constitutes 65.9% portion having 1090 contributions. Compared to International continent National contribution is more.

5.2.1.51 Geographically all the 1654 citations from IBR are broadly classified into two categories as National and International. Year wise distribution of geographical citations (National & International) portrays that almost in all the years geographically National citations are dominant.

5.2.1.52 Out of total 21080 citations only 564 citations are with International geographical location. Geographical Distribution of Citations (International) represents that the highest numbers of contributors belong to England 248 (43.98%), followed by United States of America 170 (30.14%), Switzerland and Germany has equal 28 (4.98%) citations.

5.2.1.53 Out of total 21080 citations only 1090 citations are with National geographical location. Geographical Distribution of Citations (National) depicts that Delhi state has contributed the largest 663 (60.83%) amongst 19 various states followed by Maharashtra 137 (12.57%).

5.2.1.54 Geographical Citations from IBR are arranged according to Indian cities (1090) with their names and found that contributions from New Delhi cited highly followed by Delhi, Bombay, Bangalore, and Allahabad and so on.

5.2.1.55 All the 1654 form wise citations having geographical location from IBR are broadly classified into two categories viz. Indian and Foreign. It is observed that book citations highly cited followed by report, periodicals, article in periodicals and so on. In each form it is found that foreign citations are less cited as compared to Indian citations.

5.2.1.56 The total 10135 journal citations are actually drawn from 640 journals. The journals on the basis of their frequency of occurrence in the citations are grouped into 45 different ranks. First 18 high ranking journals contributed more than 78 percent (78.55%) of the total journal citations while the remaining 22 percent of the citations are drawn from 622 journals. It clearly indicates that Top ranking journals have covered large number of citations than bottom rank.
5.2.1.57 Ranking journals are those notable journals in every subject which accomplish
their recognition. The most cited Law Journals by authors of articles in the IBR is
All India Reporter, which is cited 4199 (41.43%) times followed by Supreme Court
Cases 1651 times (16.29%); Criminal Law Journal 315 (3.11%); Supreme Court
Reports 269 (2.65%); Reports of Cases in the Supreme Court of USA 222 (2.19%).

5.2.1.58 In all 24 volumes of IBR journal, cited 10135 journal citations from 640
journals. Here the expected ratio 1:2:4 does not match to the observed ratio 1: 1.2:
1.009. Hence Bradford’s law does not fit here.

5.2.1.59 The total 4382 book citations are derived from 1790 varieties of books. These
books are placed in 32 different ranks. Within the first two ranks only two books are
available which has covered 5.89% of the total citations. More than 73% citations
are referred by nearly 642 books. It proves that lower ranking books are more in
number than the top rank.

5.2.1.60 Out of the titles of the first 85 books Constituent Assembly Debates topped the
rank and having 211 frequencies of citations whereas Jurisprudence occupies
second position with 47 citations. The first rank is nearly four and half fold than
second.

5.2.1.61 Year wise distribution of journal self citation shows that only two years i.e. 1992
and 2002 are having two digit journal self citations whereas the years i.e. 1991 and
2008 doesn’t have any journal self citations.

5.2.1.62 Journal articles are self cited highly from various forms of journal self citations
(Journal, Journal Articles and Reports).

5.2.1.63 The age of journal self citations depicts that more than eight percent (8.7%) of
journal self citations are cited within 7 years of publications or occurrence.
Maximum (88.4%) number of journal self citations are made within more than 11
years.

5.2.1.64 Repetitiveness of Journal Self Citations means that self citation cited more than
one. Entire repetitive journal self cited articles are similar in their content of the
citing article.

5.2.1.65 The total 8252 case citations are actually drawn from 3751 cases. The cases on
the basis of their frequency of occurrence in the citations are grouped into 40
different ranks. Within the first 14 ranks only one or two cases are available. But
later on against a particular rank the number of cases varies from 1 to 2556 cases.
The last rank, i.e. 40 contained 2556 cases. It indicated that against the lower rank,
cases are more in number than the top ranking cases. Approximately two hundred citations per cases found for the first rank.

5.2.1.66 Total numbers of 8252 case citations are distributed within 24 years. Year 2003 has the largest 662 (8.02%) case citation whereas 1995 has the lowest 92 (1.11%) case citations.

5.2.1.67 Out of total of 25 top ranking cases apex position for case citation is acquired by ‘M. C. Mehta v. Union of India’ by occurring frequency of 192 followed by ‘Kesavananda Bharati vs. State of Kerala’ with rank 2nd having 107 citations.

5.2.1.68 Cases in IBR are cited from various journals. Most Cited Journal for Case Citations is All India Reporter which occupied rank 1 position as it is cited in 1923 times followed by 2nd rank for Supreme Court Cases (1379) and Criminal Law Journal is cited in 280 times with rank 3. United States Supreme Court reports 227 and Supreme Court Reporter 226 are having approximately same count for case citation and therefore they have 4th and 5th rank in the rank list table.

5.2.1.69 Geographically all the cases from IBR are broadly classified into two categories as Indian and Foreign. Out of total 8252 case citations most of the cases cited are from Indian sources with 7241 citations and the rest 1011 only from foreign sources. Foreign case citations in comparison with Indian are very poorly mentioned.

5.2.1.70 Indian case citations are dominant over foreign case citations.

5.2.1.71 Recency of information means use of updated information, new information, and latest information. Analysis of 21080 citations shows how recent the information materials cited. Citations which are lowest 394 (1.87%) are below the period of 5 years (2010-2006) and classified as very recent, while the highest 7294 (34.6%) citations fall between 11-20 years (1995-1976) and classified as not very recent. Most of the citations cited in IBR are not very recent.

5.2.1.72 Recency of Information Materials Cited for Journal Citations shows that out of 10353 journal citations 236 (2.28%) of the total citations are very recent whereas 7464 (72.09%) citations are not recent. Most of the journal citations cited in IBR is not very recent.

5.2.1.73 Recency of Information Materials Cited for Book Citations shows that out of 4382 book citations 49 (1.12%) of the total citations are very recent whereas 382 (8.72%) are very old citations. Most of the book citations cited in IBR is not very recent.
5.2.1.74 Analysis of 21080 citations by age of the cited documents can indicate the useful life of documents. This useful life has also been called as the “Half Life”. Half life period of Cited document in IBR is 12 years.

5.2.1.75 Half life period of journal citation is 12.5 years range.

5.2.1.76 Half life period of book citation is 9.5 years range.

5.2.1.77 Generally time lag is an interval of time between two related phenomena (as a cause and its effect). For the present research time lag for journal is mentioned for year and number of citations received during that particular year. Being a law journal the frequency of the citations becomes very less for the years more than 60. It is also revealed that during the time period of 2\textsuperscript{nd} to 5\textsuperscript{th} decade citation frequency is comparable. For the first decade use of journal is very negligible between the years 1986-2000.

5.2.1.78 Time lag is mentioned for year and number of book citations received during that particular year. During 1986 to 2010 numbers of books are cited within a gap of 20 to 30 years. As the time lag became more the number of citations became less. Frequency of the book citations is almost same in second and third decade.

5.2.1.79 The age is defined as the difference between the year of publication of the IBR article and the year of publication of the cited article. The chronological distribution of the total citations reveals that the oldest citation in 1360 is cited in the year 1987. There is a tendency to cite the citations of minimum age.

5.2.1.80 Age is referred to as length of time material has existed, measured in years. This is done to determine the recency or otherwise of materials cited in the journal. Chronologically it is found that second (2000-1991) and third decade (1990-1981) citation count is high compared to other decades.

5.2.1.81 Age wise Distribution of Journal Citations reveals that the oldest citation of 1610 is cited in the year 2000 once and twice in the year 2002. There is an inclination to cite the journal citations of minimum age.

5.2.1.82 Chronological distribution of journal citations shows that second (2000-1991) and third decade (1990-1981) citation count is high compared to other decades.

5.2.1.83 Age of cited items for book citations in IBR reveals that the oldest citation in 1360 is cited once in the year 1987. There is an affinity to cite the book citations of minimum age.

5.2.1.84 From chronological distribution of book citations, it is found that second (2000-1991) and third decade (1990-1981) citation count is high compared to other decades.
5.2.2. Content Analysis

5.2.2.1 Volume wise distribution of articles display after taking a review of 666 articles which are published in the various 24 volumes of IBR that there are highest number of articles 50 (7.51%) in the volume XXV whereas lowest number of articles 5 (0.75%) in the volume XVII. It is also found that articles varied from volume to volume.

5.2.2.2 Volume wise distribution of articles display after taking a review of 666 articles which are published in the various 24 years of IBR that there are highest number of articles 50 (7.51%) in the year 1998 whereas lowest number of articles 5 (0.75%) in the year 1990. There is a gradual growth in the number of publications during 1999-2003 and then further reduces up to 2007.

5.2.2.3 IBR is a quarterly law journal and it publishes four quarter issues every year having number 1, 2, 3 and 4. Issue wise distribution of articles depicted that issue number 3 & 4 has published largest number of 159 of articles which is 23.87% of total and stood first in the rank position followed by issue number 1 in which 109 number of articles with 16.37% is published.

5.2.2.4 IBR is a quarterly law journal hence it is expected that it should have only four issues in a year mentioning month Jan.-March, April-June, July to Sept and Oct.-Dec. Though the frequency of the journal is maintained as quarterly but IBR does not publish quarterly. Month wise distribution of articles found that in the month of July – December, maximum number 159 (23.87 %) of articles are published and positioned rank 1st whereas in January – March, 109 (16.37%) articles are published which stands on rank 2nd.

5.2.2.5 Distribution of articles by Volume & month shows that Vol. XXV and month July-Dec. has highest number of articles whereas Vol. XV and month July-Dec & Jan-Mar. has lowest number of articles.

5.2.2.6 In each issue whatever articles published given serial no. 1,2,3,4 etc mentioned as article index number. Distribution of articles by article index number (month wise) indicates that all monthly issues published up to minimum article index no. 14. Then after the article index number even if increases its frequency goes on decreasing.

5.2.2.7 Distribution of articles by article index number (issue wise) indicates that all issues published up to minimum article index no. 14. Then after the article index number even if increases its frequency goes on decreasing.
5.2.2.8 The general index of any book, journal or document is having its own index number for the published articles. It is found that there are maximum 21 numbers of articles in 24 years of research issues of IBR. Year 1994 and 2002 has published maximum articles i.e. up to article index no. 21 whereas year 1990 has published minimum articles i.e. up to article index no. 5.

5.2.2.9 Distribution of articles by article index number (volume wise) found that there are maximum 21 numbers of articles in 24 years of research issues of IBR in the 666 articles. Vol. XXI and XXIX have published maximum articles i.e. up to article index no. 21 whereas vol. XVII has published minimum articles i.e. up to article index no. 5.

5.2.2.10 Content page of IBR journal gives information about literature published in the particular volume/issue. IBR consists of various channels of communications. Out of these channels Articles 666 (56.49%) are mostly communicated followed by Judicial 192 (16.28%). Notes, Views and Comments, Chairman’s page, Editorial, Reports, Book Review, announcement, appendices, Legislation, Miscellaneous are also very small channels of communications. Articles are the most used channel for communication.

5.2.2.11 Year wise Distribution of various Channels of Communication found that in the year 1998, there are highest 91 (7.72%) channels of communications whereas the year 1990 shows lowest 18 (1.53%) channels of communications.

5.2.2.12 IBR is an Indian National Law Journal. It is obvious that the literature published in this must have an English Language. It is 100 % reflected after analyzing the entire data that all articles published in the English Language only.

5.2.2.13 Judicial is a division of publication in IBR in which cases judged before the supreme court of India, high court of India and the disciplinary committee of the Bar Council of India etc. is presented in this division. Distribution of judicial reflects that major cases resolved before the Disciplinary Committee of the Bar Council of India are being presented in judicial.

5.2.2.14 IBR publishes a part of literature headed as Notes, Views and Comments. This describes a short documentation in the form of notes, opinion and expresses a comment or explanation on a particular passage in a text. Notes, Views and Comments are highest 22 (36.67%) in the volume XIV whereas volume XXI has only 3 (5%) lowest Notes, Views and Comments from a total of 60.
5.2.2.15 IBR publishes a part of literature titled as Book review. Only 22 book reviews published in eight volumes during the period 1986-2010 of IBR. Vol. XVI & Vol. XIX having highest number of book review.

5.2.2.16 Page Length of Articles shows that maximum 73 (10.96%) number of articles has a page length of 9 followed by 59 (8.86%) articles has a page length of 7.

5.2.2.17 Length of Words in Article identifies that most of the articles 31.23% (208) are in the page length of words between 1501-2500 whereas the lowest 1.51% (10) of articles shows a word count in between 5501-6500.

5.2.2.18 IBR is having number of articles with varied number of pages. Volume wise average length of articles revealed that volume XXV is having minimum (8.6) average pages and XXXVII is the maximum (17.38) average pages. Average length of articles is 12.75 pages.

5.2.2.19 Out of 666 articles 610 i.e. 91.59% are written by single author which shows the single authorship is predominant than two and three or without Authors.

5.2.2.20 Out of 666 articles published in IBR 663 articles having authors and 3 articles are without author. 663 articles produced by 717 authors. Among that male author contributed prominently with 86.75 % (622) whereas female author contributes only 13.25% (95). Male author contributed more as compared to female authors.

5.2.2.21 Collaboration Rate defines to work with another author or group of author in order to get or do something related to Publication Productivity. Year-wise publication productivity and collaboration rate located that year 1998 has highest number of publications covering 50 authors whereas 1990 year records lowest publication productivity. Collaboration rate is highest in the year 2007 having a value of 0.44 and it is zero for five years.

5.2.2.22 Author productivity is defined as paper(s) published by an author within a specified time and Collaboration in research is said to have taken place when 2 or more persons work together on a scientific problem of project and effort, both physical and intellectual (Gupta, 1986). Year wise distribution authorship and collaboration trend shows that in the year 1987 & 88, 1990, 1995 & 96 there are only single author contributions. Only for the year 2005 and 2009, three authors contributed their contributions. It is also revealed that Collaboration Trend is more in the first decade of twenty first century.

5.2.2.23 Most productive author is an intellectually creative and productive and able to write very competently. Bhatt Jitendra N. is authored for 15 numbers of citations and therefore occupies rank 1st in the IBR rank list of most productive author
followed by Rao PP on rank 2\textsuperscript{nd} with 12 numbers of citations; Mishra V C on rank 3\textsuperscript{rd} with 11 citations, Menon N R is on rank 4 with 10 numbers of citations.

5.2.2.24 A book review is a form of literary criticism in which a book is analyzed based on content, style, and merit. Six authors reviewed 2 books each and ten authors reviewed 1 book each.

5.2.2.25 Chairman is an executive elected by a company's board of directors that is responsible for presiding over board or committee meetings. Ranking of chairman reveals that Mr. Subba Rao is the highest 11 times contributor for Chairman’s page with rank 1 position followed by 7 times frequency for Sharma O P with rank 2. Misra Vinay Chandra as a Chairman contributed 5 times.

5.2.2.26 Editor means a person who is in charge of and determines the final content of a newspaper, magazine, or multi-author book. Ranking of Editor reveals that Jha Ram Chandra has edited the Journal IBR maximum 13 times frequency in the rank list of editors and therefore stood 1\textsuperscript{st} followed by Menon N.R. Madhava with a frequency of 9 with rank 2\textsuperscript{nd}.

5.2.2.27 An editorial review is a review published by a third person or entity. Volume wise editorial review revealed that Jha Ram Chandra worked as an editor 13 times whereas Menon N.R. Madhava edited 9 times. Jha Ram Chandra is most prolific editor.

5.2.2.28 Designation is the job title of the employee in general and academically in particular. Various articles in IBR are written by different eminent personalities such as Principals, Professors, Advocates, Hon Judges, and Researcher and also by the students. Designation wise publication traced out that Assistant professor in Law contributed more 159 (22.14\%).

5.2.2.29 IBR being a law journal, most of the contributors are from Law discipline and obtained a post graduate degree in the Law faculty. Educational qualification wise rank list of author for articles states that out of 158 contributors 39 (24.68\%) are having LLM degree and stood in the rank 1 position followed by Ph D a highest degree in the educational field for any academician. It is interesting to note that out of 717 authors only 158 authors have declared their educational qualification.

5.2.2.30 An institute is a permanent organizational body created for a certain purpose. There are 180 organizations involved in writing the article. Institutes wise distribution (National) displays contribution of National Law School of India University topped with 43 publications, Supreme Court of India with 27
publications occupied 2nd rank, Karnataka University 23 publications followed by University of Delhi with 21 publications.

5.2.2.31 Institutes wise distribution of articles (International) describes that Monash University has a frequency of publication 3 with rank 1st. The others National University of Malaysia, University of Maiduguri, International Islamic University and University of Iowa publish only 2 articles and received second rank.

5.2.2.32 Geographically all the articles from IBR are broadly classified into two categories as National and International to draw proportion of Indian vs. Foreign Country. Out of 717 authors only 613 authors have mentioned their geographical affiliation. There is huge contribution by Indian Authors 591 (96.41%) whereas 22 (3.59%) is from Foreign country.

5.2.2.33 Geographical distribution of research output means the article published from different countries. Geographically also India finds the top position compared to other countries. Out of 666 total articles 557 articles produced by 613 countries. Geographical distribution (Country wise) search out that India has 591 (96.41%) contributions followed by United States 9 (1.47%). Malaysia 5 (0.82%), Australia 3 (0.49%) and Nigeria 2 (0.33%) are other countries.

5.2.2.34 Geographically all the articles from IBR are organized nationally declares their name of state. State wise distribution (National) provides data of 29 high performing states which have contributed 584 research output. It reveals that Karnataka is on the top with highest contribution of 101 (17.29 %); followed by Delhi 93 (15.92 %) with rank 2; Uttar Pradesh 64 (10.96 %) with rank 3; Andhra Pradesh and Orissa 47 (8.05%) having rank 4; Maharashtra 39 (6.68%) with rank 5. These 6 states up to rank 5 together contribute to 391(66.95%) of total output of 29 states.

5.2.2.35 Geographically all the articles from IBR are organized internationally mentioning their name of state. State wise Distribution (International) discloses Kuala Lumpur contributed in 4 (18.18%) which is the highest amongst 15 various Foreign states followed by Victoria 3 (13.64%). Borno and Lowa has equal contributions 2 (9.12%) with others has contributed in single only.

5.2.2.36 Proportion of Indian vs. Foreign States demonstrates that Indian States has contributed 584 (96.37%) whereas Foreign States has only 22 (3.63%) contribution amongst a total of 606 contributions. Indian State contributed more within research.

5.2.2.37 City is a center of population, commerce, and culture; a town of significant size and importance. Rank list of Cities (National) provides data of 101 high performing Indian cities which have contributed 574 publications. It reveals that Delhi is on the
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top with highest contribution of 70 (12.30 %); followed by Bangalore 48 (8.28 %)
with rank 2; Dharwad 25 (4.37 %) with rank 3; New Delhi 23(4.02%) having rank
4; Bhubaneswar 21(3.66%) with rank 5.

5.2.2.38 City is a place where people live that is larger or more important than a town.

Rank list of Cities (International) shows the International Cities with their rank. It is
revealed that Melbourne has the highest 3 (13.64%) publications with rank 1
position. Lowa, Bangi, Maiduguri, Malaysia and Philadelphia cities produced two
publications each with rank 2. Out of 22 total International Cities 9 has published 1
(4.54%) number of publication each.

5.2.2.39 Each and every article analyzed and find out for which subject it is concerned.

Entire 666 articles are grouped into 105 subject headings using controlled
vocabulary developed for this study on the basis of Dewy Decimal List of Subject
Headings. Distribution of subject wise rank list of articles shows that majority of
articles are from Constitutional and Administrative Law (106) with top rank 1 and
Control of Environment (45) with rank 2, Law and Ethics (41) with rank 3 of cited
articles are used in IBR. Education and Schools (38) have rank 4 and Judges (30)
occupied rank 5 in the subject rank list. The first five ranking subject covers almost
40% (260) articles from IBR.

5.2.2.40 Researcher has formulated the articles established in IBR according to the core
areas of Law discipline as per Dewey decimal classification sequence. Core Areas
and Present Inclination in Law Discipline has shown that ‘Constitutional and
Administrative Law’ has recorded the highest rank 1 with 150 numbers of
publications. It is then followed by 113 (16.17%) in ‘Social Law’ with rank 2. Core
area ‘Law’ has been awarded rank 3 with 101 (15.17%) of literature published.
‘Criminal Law’ and ‘Private Law’ has published equal 76 (11.41%) number of
publications which is on rank 4 with a very small difference of 74 (11.11%)
publications for ‘Civil Procedure’ which is in rank 5.

5.2.2.41 To find out areas of interests and current trends in law discipline researcher has
further classified the various articles along with their main discipline and sub
discipline which reveals that even if ‘Law’ (14) is the main discipline, ‘Law and
Ethics’ has been covered 40 articles out of 101. The second core area of ‘Law’ is
‘International Law’. Amongst this ‘Basic Human Rights’ has been covered 25
articles from 42 as compared to 4 of ‘International Law’. For the ‘Constitutional and
Administrative Law’ subject the same sub discipline has been covered 105 articles
out of 150. Remaining discipline and sub discipline have also covered more or less articles.

5.2.2.42 Each and every Chairman’s page analyzed and find out for which subject it is concerned. Subject covered in the Chairman page revealed that on the rank 1 the subject having 11 frequencies is ‘Law and Ethics’ followed by ‘Lawyers’ with a frequency of 5 and stood 2nd in the rank list.

5.2.2.43 Editor page is one of the most important pages in IBR. Editor always gives a view on the subject covered and highlights the issues. Subject covered in the Editor Page found that the editorial page covers the subject ‘Judges’ most of the times with a frequency of 6 having rank 1st followed by the subject ‘Law and Ethics’ having a frequency of 5 is on rank 2 positions.

5.2.2.44 IBR publishes a part of literature headed as Notes, Views and Comments which describes a short documentation in the form of notes, opinion and expresses a comment or explanation on a particular passage in a text. Subjects covered in notes, views and comments revealed that with a frequency of 18 subjects ‘Constitutional and Administrative Law’ stood first in the rank list. ‘Law and Ethics’ with 2nd rank having a frequency of 4.

5.2.2.45 Report is a document containing information organized in a narrative, graphic, or tabular form, prepared on ad-hoc, periodic, recurring, regular, or as required basis. Subject covered in the Report found that the subject ‘Pretrial Procedure’ occupied rank 1 with a frequency of 11 followed by the subject ‘Constitutional and Administrative Law’ with a rank 2.

5.2.2.46 Researcher has grouped Inaugural Address, Valedictory Address, Welcome Speech, Information about Act and Rules, Bar Event, Obituary, etc. in ‘Miscellaneous’. Subject covered in the miscellaneous searched that the subject ‘Education and Schools’ having the top most frequency of 17 with rank 1 position followed by a major difference of frequency 8 and will stand on rank 2 for the subject ‘Constitutional and Administrative Law’.

5.2.2.47 To ascertain the outline of article titles in IBR, researcher distributed type of title in three categories viz. Descriptive, Question and Declarative. Distribution of Articles (Type of Title-wise) revealed that most of the titles in the articles of IBR comes under the category Descriptive with a number 636 (95.5%) followed by a question category of 28 (4.2%). Only 2 (0.3%) out of 666 articles are of Declarative.

5.2.2.48 Another parameter used to count the words in the title of articles published in IBR. Distribution of Words in Title of Articles found that words are distributed in
the range of 1 to 24 and three forth portion is for the word count of 3 to 8. The maximum frequency 143 (21.47%) is for 4 number of words in title and length of titles having words 18 and 24 within single (0.15%) article.

5.2.2.49 Punctuations are used in expressing our thoughts. Distribution of Articles (Punctuation Used in Title-wise) noticed that 379 (56.91%) titles are having punctuations and 287 (43.09%) titles of articles are not mentioned any punctuation mark.

5.2.2.50 Volume wise distribution of articles showing use of punctuation mark in title reveals that Vol. XXXVI is having the highest average punctuation mark.

5.2.2.51 Ranking of punctuation used in article revealed that ‘Full Stop’ stood first in the rank list with a frequency of 324, followed by ‘Comma’ with a count of 99. The punctuation mark ‘Inverted Comma (double)’ used only once.

5.2.2.52 Preposition means a word or group of words used before a noun or pronoun to relate it grammatically or semantically to some other constituent of a sentence. Distribution of Articles (Preposition Used in Title-wise) found that out of 666 articles, 496 (74.47%) of titles are having prepositions whereas 170 (25.53%) does not used the prepositions in their article title.

5.2.2.53 Volume wise distribution of articles showing use of preposition in title shows that Vol. XVII is having the highest average preposition with 100.00%.

5.2.2.54 Rank list of prepositions used in article title found that, ‘Of’ as a preposition with a frequency of 853 having rank 1 followed by 222 ‘In’ preposition on rank 2.

5.2.2.55 Abstract is from a Latin word meaning "pulled away, detached," and the basic idea is of something detached from physical, or concrete, reality. Distribution of Articles (Abstract-wise) found that 646 (97%) of articles are not having any abstract whereas only 20 (3%) has mentioned the abstract.

5.2.2.56 Volume wise distribution of Articles published along with Abstracts reveals that Vol. XXXVII is having the highest articles published along with abstracts with 23.81%.

5.2.2.57 Keyword is a significant or memorable word or term in the title, abstract or text of a document or other item being indexed which is used as the index entry. Distributions of Articles (Keyword-wise) found that only 2 (0.3%) has mentioned the keywords in their articles whereas 664 (99.7%) has not given any keyword.

5.2.2.58 Keywords are the words that are used to reveal the internal structure of an author's reasoning. Numbers of keyword from articles not only reflect the topic of research, but also provide a convenience way to search and retrieval. Rank list of
Keywords and application of Zipf’s Law investigates that the high frequency keywords are ‘Constitution of India’ 331 with top rank followed by ‘Judiciary’ 123 with rank 2; ‘India’ 110 having rank 3 and ‘Lawyers’ 87 got rank 4 in the keyword rank list position. ‘Human Rights’, ‘Legal Education’ and ‘Legal Profession’ having frequency of 69 each secured 5th rank. It is very much noticeable that keywords up to rank five covered almost three forth (76.00%) keywords out of 1121 various keywords. The most famous statistical distribution in linguistics is Zipf’s law: in any large enough text, the frequency ranks (starting from the highest) of keywords are inversely proportional to the corresponding frequencies: \( f(r) \times r = c \), where \( f(r) \) is the frequency of the unit (Keyword) having the rank \( r \) and \( c \) is a constant. Here Zipf’s law is satisfied.

5.2.2.59 Introduction refers to the material given at the front of a book to explain or to makes clear to the reader the purpose of text. Distribution of articles (Introduction-wise) depicts that 349(52.4%) articles are given the ‘Introduction’ whereas 317 (47.6%) articles are not given the ‘Introduction’.

5.2.2.60 Volume wise distribution of Articles giving Introduction reveals that Vol. XXXVI is having the highest no. of articles giving introduction with 100.00%.

5.2.2.61 The conclusion is the logical outgrowth of the result. Distributions of Articles (Conclusion-wise) reveals that 351 (52.7%) articles are having ‘Conclusions’ whereas 315 (47.3%) are not written any ‘Conclusion’ in separate headings.

5.2.2.62 Volume wise distribution of Articles giving Conclusion reveals that Vol. XXXIV is having the highest no. of articles mentioning 100% conclusion.

5.2.2.63 Author of the article always use graphs, charts, figures, etc. to interpret the data used to write the article and to enhance the message which author want to deliver. Distribution of Articles (Relevant Aspect-wise) found that only 15 (2.25%) articles are having respective relevant figures, charts, graphs to illustrate their content whereas 651 (97.75%) have not mentioned the relevant aspects for the clarification.

5.2.2.64 Chronological Distribution of Citations within Articles shows that Lowest number of citation 1 is covered in 2 articles whereas highest 272 citations is also covered in 2 articles. The study also shows that 203 (30.48%) articles out of 666 articles are without citations.

5.2.2.65 Cluster wise distribution of citations of articles found that the citations having a cluster of 1-25 has the maximum number of articles equal to 224 (33.63%) whereas there is not a single article having citation clustered in 201-225. One third of articles have citations in between 1-25.
5.2.2.66 IBR is also analyzed on the basis of statement about ownership and other particulars about IBR mentioned either backside of first page or last but one page of IBR. Statement about ownership and other particulars distribution of IBR reveals that out of total 59 issues which are published in single as well as in merged form, 40 (67.80%) issues are having declaration, 41 (69.49%) are having information about committees and 45 (76.27%) issues indicates the Name of Trustees.

5.3. **Major Conclusions**

Objectives and hypothesis are justified. The major findings and highlighted conclusions are as follows according to sequence of the objectives.

1. Thirty seven various types of bibliographic forms cited in IBR.
2. Case, book, journal article, section are the most used bibliographic sources cited in IBR.
3. Single author (Baxi Upendra) citations are mostly cited.
4. Case and book citations are mostly preferred in IBR.
5. The All India Reporter stood first in the rank list of journals.
6. Half life of IBR is twelve and half year.
7. Age between the years eleven-twenty has maximum number of citations.
8. Articles which have a page length of nine are more in number.
9. There is no linear relation between Volume and number of articles.
10. Articles contributed by the Indian contributors are sizably greater than foreign contributors.
11. Subject dispersion in IBR is from core areas of law discipline.
12. ‘Descriptive’ titles are more in the title distribution of articles.

5.4. **Testing of Hypothesis**

The following is a restatement of each of the hypotheses and a summary of the major findings from the tests of each hypothesis.

**Hypothesis 1: Citations in different forms are mentioned**

This hypothesis 1 is accepted.

Table no. 3.14 and Table no. 3.16 shows that there are 37 various types of bibliographic forms used to cite in IBR. These are case, book, journal article, section are the most used bibliographic form for citations in IBR. The other categories are article, report, act, journal, periodical, articles in periodicals, website, comment, conference, rules, conference proceedings, dictionary, website article, commission, order, bill, judge, survey, committee, interview, judgment, budget, law, lecture, note, opinion by judges,
Hypothesis 2: Cases and journals are mostly cited

This hypothesis is accepted for Cases and rejected for Journal citations.

The IBR has preferred mostly the case and book citations. Table 3.14 shows out of the total citations 8252 (39.15%) belong to cases, whereas only 2101 (10.12%) citations go to journals which is smaller than Book citations 4382 (21.11%).

Hypothesis 3: Very few citations are having old age

This hypothesis is accepted.

Researcher has taken a review of 21080 total citations. Table 3.80 reveals that only 996 (4.72%) of citations having old age between 1945-1360.

Hypothesis 4: Majority of the articles have more than 3000 words

This hypothesis is rejected.

There are 666 articles in IBR covering 24 volumes of 95 issues. Researcher has physically counted the pages of each article. Table 4.17 illustrates that the word count of 1501-2500 covers 208 (31.23%) number of articles which is the maximum coverage. In compared with this, articles having 2501-3500 words are enveloped within 140 (21.02%) number of articles. This clearly indicates that maximum coverage of word count lies in 1501-2500 and not in 2501-3500.

Hypothesis 5: Articles are increased volume by volume

This hypothesis is rejected.

With regard to quantitative expansion of articles, no significant evidence shows that there is likely to be a great increase in numbers of articles in this IBR journal; neither there is any high possibility for such a rapid growth in numbers of articles. Table 4.1 and 4.2 interpret that there is an uneven distribution of articles in 24 volumes covering 666 articles.

Hypothesis 6: IBR covers all the contents in legal education

This hypothesis is accepted.

IBR being a law journal, all the articles published in this journal is devoted to the law discipline. Researcher formulates the articles established in IBR according to the core areas of Law discipline (Table 4.40). Researcher further classifies the various articles along with their main discipline and sub discipline (Table 4.41) and found that IBR covers all the contents in legal education.
5.5. Areas for Further Research

2. Webometric analysis of Supreme Court of India- A Case Study (http://supremecourtofindia.nic.in/)
3. Content Analysis of Legal News and Views