University of Nebraska - Lincoln

**DigitalCommons@University of Nebraska - Lincoln**

Library Philosophy and Practice (e-journal)      Libraries at University of Nebraska-Lincoln

February 2016

# Scientometric Study of Periodical Literature with Journals "Language Sciences" and "Linguistics and Education"

BIPIN BIHARI SETHI
*Sambalpur University,ODISHA,INDIA*, bipin_bihari_sethi@hotmail.com

Follow this and additional works at: http://digitalcommons.unl.edu/libphilprac

Part of the Library and Information Science Commons

# Scientometric Study of Periodical Literature with Journals "*Language Sciences*" and "*Linguistics and Education*"

*Barada Kanta Mohanty*
*Librarian, KIIMS, Cuttack, Odisha, India*
*baradakantamohanty@gmail.com*

*Dr. Bulu Maharana*
*Sambalpur University, Odisha, India*
*bulumaharana@gmail.com*

*Bipin Bihari Sethi*
*Sambalpur University, Odisha, India*
*bbs21111967@gmail.com*
∗ Corresponding Author. 917377136122 (M); E-mail address: *bbs21111967@gmail.com* (B. B.Sethi)

### Abstract

This paper seeks to analyze publications indexed in the database of *Science Direct Top 25 hottest Papers* in Arts and Humanities journal to understand the international perspective of research publication dynamics in two core journals such as: (1st)*"Language Sciences"* (LS) and (2nd)*"Linguistics and Education"* (L&E) respectively. This is a comprehensive survey work using bibliographic records derived from Science Direct top 25 hottest papers database during *2005–2014* and this paper vigorously tries to give a complete view of the evaluation of research outcomes. Findings of the study revealed that out of a total number of 1800 papers undertaken for the present research, 50 percent were shared from each journal. It is indicated from the study that top 15 authors of 1st journal contributed 349 (38.77 %), and 2nd journal added 281 (31.22 %) papers to their credit which counts more than one third of the whole contribution. In both journals a major share 78 and 76 percent papers were produced by single authors, while the collaborated papers were only 22 and 24 percent the study discloses. Considering the authors' institutional affiliation it is ascertained that, the authors' contributed to both journals was affiliated to 153 and 152 unique institutions spread over a wide range global geographical regions. Besides, the geographical analysis claims and vitalizes the cross-national comparison in the research practices is found considerably benchmarking. The overwhelming and most productive geographical region contributor USA added 139 (15.44 %), and 220 (24.44 %) papers to both journals categorically, and maintained its status of prolificacy in the arena of global research.

**Keywords:** *Scientometrics; Research output; Authors productivity; Degree of collaboration; Authorship pattern; Citation pattern; Productive countries and Institutions; Prolific Authors; Science Direct; Scholarly Publications; Research Excellence, LS; L&E.*

## 1. Background Study

The examination of the research publication productivity and its contributions is a buzzing area of research in the field of library and information science. Bibliometrics, Scientometrics, Citation Study, and Content analysis are the concepts supplementary and complementary to each other in their respective applications in the domain of research which are

most popular tools extremely and extensively used in the field. This technique has been applied in the present study to evaluate research productivity at a global context for obtaining necessary inferences.

To avoid confusion it would be worthwhile to point out here that, though the data undertaken from papers indexed in Science Direct Bibliographic Database top 25 hottest papers of the journal "*Language Sciences",* and "*Linguistics and Education*", covering time period 2005-2014, but the actual year of publication of these papers in the source journals as shows in table no. 2 indicates the period 1988-2014 (1st journal), and 1995-2014 (2nd journal).This is because, the papers are appeared in the top 25 hottest papers site under the period 2005-2014 which were actually published in the 1st journal (LSs) during 1988-2014, while in case of 2nd journal (L&E) the papers are appeared in the top 25 hottest papers site under the period 2005-2014 which were actually published within the period 1995-2014 in the source journal also.

## *2.    Introduction:*

Over the years, the Scientometric techniques have become tools to evaluate the productivity of research institutes, individual researchers and to map the growth of the respective subject. Publication and citation counts are being extensively used for evaluation purpose as expressed and discussed by several earlier studies (Koganuramath et. al., 2002; Davarpanah, 2009; Bechhofer et. al., 2001; and Thanuskodi, 2010). The studies undertaken by the above researchers comprehensively focus on the assessment of strengths and weaknesses in the Social Sciences research performance in an international context and discussed the identification of patterns of scientific development particularly the mapping of research activities of varied organizations, institutions, scholars/researchers, etc.(Quoted by Sethi & Panda, 2014).

Scientometrics is a technique of measuring, evaluating, and analyzing science, technology and innovation. Key research issues include the measurement of impact, reference sets of articles to evaluate the impact of journals and institutes, understanding of scientific citations, mapping scientific fields and the production of indicators for use in policy and management contexts. In practice there is a significant overlap between scientometrics and other scientific assessment methods such

as: bibliometrics, informatrics, and information science etc. (Retrieved from *http://en.wikipedia.org/wiki/Scientometrics*)

Scientometrics is one of the vital measures for the estimation of scientific productions. Macias-Chapula asserts that "scientometrics indicators become essential to the scientific community to profess the state-of-the-art of a given topic" (quoted In Lolis et. al. 2009). Scientometrics is concomitant to and has overlapping interests with the idioms Bibliometrics and Informetrics. The terms Bibliometrics, Scientometrics, and Informetrics refer to component fields associated with the study of the dynamics of disciplines as reflected in the production of their literature (Hood & Wilson, 2001).

"Scientometrics" is the English translation of the word of Nalimov's classic monograph Naukometriy in 1969, which was relatively unfamiliar to western scholars even after it translated into English. Prior to internet to be so pervasive it was rarely used and cited. However, the term became widely accepted when the journal Scientometrics once appeared in 1978 (Garfield, 2007).

There are many definitions have been put forward for the term "Scientometrics" in the literature. However, Scientometrics is the quantitative evaluation of disciplines of science based on the scholarly communication of published literature. This could involve identifying emerging areas of scientific research, examining the development of research over time, or geographic and organizational distributions of research (Glossary of Thompson…, 2008).

Tague-Sutcliffe (1992) explicates Scientometrics as "the study of the quantitative aspects of science as a discipline or economic activity. It is an integral part of the sociology of science and has applications in science policy-making. It involves quantitative studies of scientific activities, including, among others, publication, and so overlaps bibliometrics to some extent".

### 3. *Scope & Objective of the Study:*

The scope of the study encompasses two international journals viz., "Language Sciences (LSs)", and "Linguistics & Education (L&E)" research outcomes indexed at Science Direct Database under the heading Top 25 Hottest Articles during the period 2005-2014 in the field of Arts and Humanities a comparative examination. The study accounts a total 1800 papers adding 900

(Nine hundred) from each journal. The key objective of the present study holds to determine the following issues are:

i.     Nature of Authorship pattern of publication;

ii.     Single Vs Multiple authored papers;

iii.    Trace the Geographical Distribution/scattering of        research publication;

iv.    Chronological Growth pattern of literature;

v.     Most productive authors of top countries;

vi.     Degree of collaboration of authors;

vii.   Degree of citation of articles;

viii. Study of length of the papers and

ix.    Understanding the trends in scholarly   research output

## 4.    *Methodology adopted*

Specifically, the study concentrated on the Scientometric analysis is one of the most widely used methods in Library and information science research. It is an examination of the frequency, patterns, and citations in research works. This study is aimed to discuss about the analysis of the research output of two international journals indexed under *Science Direct on-line Database.* The relevant sources and data are collected from top 25 hottest Articles site. Based on the available sources the following discussions were made.

Data on papers published in the two international journals such as: 1st "*Language Sciences (LSs) and 2nd "Linguistics & Education (L&E)* were collected from each downloaded articles from Science Direct on-line Bibliographic Database, and each data were examined identically to find out the result. All papers included in the analyses are indexed under the site top twenty five hottest articles for the period 2005-2014 accounting 900 papers each. Further, each items of information processed by developing a database of 1800 down loaded records adding essential categorical variables viz. journal title, article title, 1st author, number of authors, affiliation with institutions, country of origin (considering 1st author), year of publication in source journal, number of citations, length of papers and ranking pattern, etc. using the MS-Excel spread sheet. Further, the categorical variables were expressed as frequency and percentage. Moreover, the Chi-Square ($x^2$)  test is applied over the data in table 2, 3, 8 and 9 in order to understand the degree of significance in variation in enlistment of

research papers, variation in mean estimation of research papers, variation in citation pattern as well as variation in pagination pattern of papers of both journals.  Since, reference counts are not freely available with the abstract site the investigator did not able to analyze the reference pattern of the papers. Finally, all relevant data are then sorted, tabulated, and assimilated in a logical order, tried at their level best to draw inferences for the present research.

## 5.    *Review of Literature*

*Meadow and Zaborowsk (1979)* conducted some statistical analyses on the citation patterns of the 1978 edition of JASIS and found that most of JASIS authors (43 out of 54) came from the USA.

*Dutt, Garg & Bali (2003)* analyzed 1317 papers published in the first fifty volumes of the international journal of *Scientometrics* during 1978 to 2001. They found that the U.S.A share of papers is constantly declining while that of the Netherlands, India, France and Japan is on the rise. The research output is highly scattered as indicated by the average number of papers per institution.

*Moin, Mahmoudi & Rezaei (2005)* evaluated the scientific production of Iran during 1967 to 2003 and compared it with 15 selected countries. They found that Iran has had an increasing growth after the Iraq-Iran war.

*Mukherjee (2008)* analyzed the authorship pattern of scientific productions of the four most productive Indian academic institutions for the eight-year –period from 2000 to 2007.    The results show that among four universities, the authors of Delhi University contributed  the      highest number of articles, followed by Banaras Hindu University. There is also an increasing tendency toward collaborative research among Indian authors as well as more frequent collaboration with international authors. Biochemistry and Molecular Biology are two of the most prolific research areas in these four Indian universities. The average rate of references per item is 28 and the citations received per item are 3.56.

## 6.    *Analysis and Interpretation*

The examination of the publications through scientometric analysis method and its contributions is a buzzing area of research in the arena of library and information science in order to get appropriate findings. The present study was intended to portrait the comprehensible picture of the trend of research output of two international journals namely "Language Sciences (LSs)", and

"Linguistics & Education (L&E)" respectively. For this purpose the relevant data were collected from Science Direct Database, top 25 hottest papers link are analyzed as follows:

## 7.    *State of the Art of Study*

The present study is an assimilation of papers indexed under Science Direct Database top 25 hottest articles link during the period 2005-2014 (8 years) of two international journals namely 'Language Sciences (LS)' and 'Linguistic & Education (L&E)' collectively accounts a total 1800 papers (900 each) as an assessment with an objective to measure and find a nuanced approach to the strength and weakness of scholarly work at the arena of cross national research.

**Table-7.1: Chronological Analysis of Papers on the basis of Year of Publication in Source Journal**

| Language Sciences | | | | | | | | Linguistics and Education | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No | Year | No. Of papers | % | C. F. | C. P. | Mean of papers per Year | Rank | Sl. No | Year | No. of papers | % | C. F. | C. P. | Mean of papers per Year | Rank |
| 1 | 1988 | 1 | 0.11 | 1 | 0.11 | | 17 | 1 | 1995 | 1 | 0.11 | 1 | 0.11 | | 15 |
| 2 | 1995 | 8 | 0.88 | 9 | 1 | | 13 | 2 | 1996 | 3 | 0.33 | 4 | 0.44 | | 14 |
| 3 | 1996 | 5 | 0.55 | 14 | 1.55 | | 15 | 3 | 1998 | 4 | 0.44 | 8 | 0.88 | | 13 |
| 4 | 1998 | 1 | 0.11 | 15 | 1.66 | | 17 | 4 | 2000 | 25 | 2.77 | 33 | 3.66 | | 12 |
| 5 | 2000 | 44 | 4.88 | 59 | 6.55 | | 10 | 5 | 2001 | 27 | 3 | 60 | 6.66 | | 11 |
| 6 | 2001 | 3 | 0.33 | 62 | 688 | | 16 | 6 | 2002 | 66 | 7.33 | 126 | 14 | | 6 |
| 7 | 2002 | 10 | 1.11 | 72 | 8 | | 12 | 7 | 2003 | 30 | 3.33 | 156 | 17.33 | | 10 |
| 8 | 2003 | 49 | 5.44 | 121 | 13.44 | | 8 | 8 | 2004 | 74 | 8.22 | 230 | 25.55 | | 5 |
| 9 | 2004 | 46 | 5.11 | 167 | 18.55 | | 9 | 9 | 2005 | 163 | 18.11 | 393 | 43.66 | | 1 |
| 10 | 2005 | 139 | 15.44 | 306 | 34 | | 1 | 10 | 2006 | 89 | 9.88 | 482 | 53.55 | | 3 |
| 11 | 2006 | 66 | 7.33 | 372 | 41.33 | *47.36* | 6 | 11 | 2007 | 36 | 4 | 518 | 57.55 | *50* | 9 |
| 12 | 2007 | 99 | 11 | 471 | 52.33 | | 3 | 12 | 2008 | 99 | 11 | 617 | 68.55 | | 2 |
| 13 | 2008 | 58 | 6.44 | 529 | 58.77 | | 7 | 13 | 2009 | 88 | 9.77 | 705 | 78.33 | | 4 |
| 14 | 2009 | 102 | 11.33 | 631 | 70.11 | | 2 | 14 | 2010 | 58 | 6.44 | 763 | 84.77 | | 8 |
| 15 | 2010 | 94 | 10.44 | 725 | 80.55 | | 4 | 15 | 2011 | 64 | 7.11 | 827 | 91.88 | | 7 |
| 16 | 2011 | 82 | 9.11 | 807 | 89.66 | | 5 | 16 | 2012 | 36 | 4 | 863 | 95.88 | | 9 |
| 17 | 2012 | 49 | 5.44 | 856 | 95.11 | | 8 | 17 | 2013 | 36 | 4 | 899 | 99.88 | | 9 |
| 18 | 2013 | 38 | 4.22 | 894 | 99.33 | | 11 | 18 | 2014 | 1 | 0.11 | 900 | 100 | | 15 |
| 19 | 2014 | 6 | 0.66 | 900 | 100 | | 14 | Total | Year coverage (18) | 900 | 100 | 900 | 100 | | * |
| Total | Year coverage (19) | 900 | 100 | 900 | 100 | | * | * | * | * | * | * | * | | * |

Table 7.1 indicates the year wise distribution of papers published in the two international journals specifically considering the publication of papers in

source journal, which were later indexed under *Science Direct Database* with online link top 25 hottest papers during the year 2005-2014. As per the data available in the above table it is determined that 2005 is the most remarkable year during which both the journals produced the overwhelming & so valuable papers which accounts 139 (15.44%) and 163 (18.11%) a largest volume those took place in the top 25 hottest papers database. In the journal '*Language Sciences*' *papers published from 1988 to 2014 variably got response to take place in top 25 hottest papers site under the period 2005-2014, whereas in journal* 'Linguistics and Education*' papers published from 1995 to 2014 placed in* the top 25 hottest papers database *during the year 2005-2014.* Moreover, during the year 2009 1st journal contributed 102 (11.33%) papers and 2nd journal added 99 (11%) papers in the year 2008 to the domain of top 25 hottest papers, got the years 2nd rank in both journals as the study noticed so far. Further, the study finds out that, in one side the 1st journal trend indicates that the later part published papers are versatile enough from the grave concern of research than the papers published earlier, while 2nd journal trend denotes middle period published papers are all-round multifaceted rather than earlier and later period, because major number of papers of both the journals of the stated period (later part of 1st journal & middle part of 2nd journal) took place in the top 25 hottest papers database. For more clarity one may refer and concentrate over *3rd table* to notice the extent of papers participation from both the journals to the top 25 hottest papers database. Hence, it would be worthwhile to point out here that, the chronological analysis of papers disclosed that the scientific and research value of papers in both the journals shows variability on the basis of their original year of publication in source journal & out of those quantity of placement over top 25 hottest papers site.

**Table-7.2: The extent of enlistment of Papers in top 25 hottest papers list** (*considering year of publication in source journal*)

| Sl. No. | Frequency (Original Year of Publication in Source journal) | Language Sciences | | | Linguistics and Education | | |
|---|---|---|---|---|---|---|---|
| | | *No. Of Papers* | *%* | *Growth Rate* | *No. Of Papers* | *%* | *Growth Rate* |
| *1* | *1995-1999* | *14* | *1.55* | *9.85* | *08* | *0.88* | *26.75* |
| *2* | *2000-2004* | *152* | *16.90* | *2.05* | *222* | *24.66* | *1.13* |
| *3* | *2005-2009* | *464* | *51.61* | *-0.42* | *475* | *52.77* | *-0.58* |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | 2010-2014 | 269 | 29.88 | * | 195 | 21.66 | * |
| | Total | 899 | 100 | * | 900 | 100 | * |

In this work the researchers have devoted considerable attention to the time distribution of citations. In this evaluation process, it is acknowledged that although all the papers are indexed under science direct database during the year 2005-2014, but original year of publication in source journal is different on the basis of which the citations are classified and grouped in table number 7.2. The above table as evidence establishes that a majority 464 (51.61%) of papers of the period 2005-2009 of journal LSs took place in top 25 hottest papers database, while 2nd and 3rd largest period is 2010-2014 and 2000-2004 from which 269 (29.88%) and 152 (16.90%) citations placed in top 25 hottest papers database of journal LSs. In case of journal L&E it is found that 2005-2009 is the most prolific period, followed by 2nd and 3rd is the 2000-2004, 2010-2014 from which period the number of citations such as: 475 (52.77%), 222 (24.66%) and 195 (21.66%) considerably took place in top 25 hottest papers database as the study discloses. A statistical method Chi-Square ($x^2$) Test is applied over the table 7.2 and results as follows:

### Application of Chi-Square ($x^2$) Test over table number 7.2

| "O" Table | "E" Table | $X^2$ Calculated Value (CV) | |
|---|---|---|---|
| 14 | 10.99 | 0.82 | *Hy:H1: There is no variation in enlistment of research papers of both the journals.* |
| 152 | 186.89 | 6.51 | *Chi-Square ($x^2$) Formula: $x^2 = (o-e)^2/e$* |
| 464 | 469.23 | 0.05 | *Degree of Freedom (V) = 3 ; Calculated Value (CV) = 26.61 ;* |
| 269 | 231.87 | 5.94 | *Tabulated Value (TV) at 0.050 or 95 % level of significance is = 7.81* |
| 08 | 11.00 | 0.81 | |
| 222 | 187.10 | 6.50 | *Chi-Square test applied over the data in the table no.7.2 with* |
| 475 | 469.76 | 0.05 | *heading "The extent of enlistment of Papers in top 25 hottest* |
| 195 | 232.12 | 5.93 | *papers list (considering year of publication in source journal)".* |
| | | $X^2$ (CV)=26.61 | *Since, $x^2$ calculated value is 26.61 which is greater than $x^2$ tabulated value 7.81 the null hypothesis is false or rejected. Hence, it is concluded that, the growth pattern of papers of both the journals are significantly varied from each other.* |

| Table-7.3: *Mean Estimation* | | | Application of Chi-Square ($x^2$) Test over table number 7.3 | | |
|---|---|---|---|---|---|
| Sl. No. | Factors | Journal | 'O' Table | 'E' Table | $X^2$ |
| | | Language | Linguistics | | | Calculated |

| | | Sciences | and Education | | | Value (CV) |
|---|---|---|---|---|---|---|
| 1 | Mean of Citations per Paper | 08 | 10.12 | 08 | 8.16 | 0.003 |
| 2 | Mean of Papers per Unique Author | 4.20 | 4.36 | 4.20 | 3.85 | 0.031 |
| 3 | Mean of Authors per Paper (All Authors) | 1.34 | 1.36 | 1.34 | 1.21 | 0.013 |
| 4 | Mean of Authors per Paper (Unique Author) | 0.22 | 0.22 | 0.22 | 0.19 | 0.004 |
| 5 | Mean of Page length per paper | 23.70 | 19.35 | 23.70 | 19.4 | 0.953 |
| 6 | Mean of Papers per Year (considering year of publication of papers in source journal) | 47.36 | 50 | 47.36 | 43.87 | 0.277 |
| 7 | Mean of Papers per Institution (Unique) | 5.88 | 5.92 | 5.88 | 5.31 | 0.061 |
| 8 | Mean of Papers per Country (Unique) | 23.07 | 47.36 | 23.07 | 31.73 | 2.363 |
| | ** | 113.77 | 138.69 | 10.12 | 9.95 | 0.002 |
| | | | | 4.36 | 4.7 | 0.024 |
| | | | | 1.36 | 1.48 | 0.009 |
| | | | | 0.22 | 0.24 | 0.001 |
| | | | | 19.35 | 23.64 | 0.778 |
| | | | | 50 | 53.48 | 0.226 |
| | | | | 5.92 | 6.48 | 0.048 |
| | | | | 47.36 | 38.69 | 1.942 |
| | | | | | ** | $x^2$ (CV)=6.735 |

Hy: H2: There is no variation in mean estimation of research papers of both the journals.

Chi-Square ($x^2$) Formula: $x^2 = (o-e)^2/e$

Degree of Freedom (V) = 7 ; Calculated Value (CV) = 6.735 ; Tabulated Value (TV) at 0.050 or 95 % level of significance is = 14.1

Chi-Square test applied over the data in the table no.7.3 with heading "Mean Estimation". Since, $x^2$ calculated value is 6.735 which is less than $x^2$ tabulated value 14.1, so the null hypothesis is true or accepted. Hence, it is concluded that, there is no significant variation in the mean easimation of research papers of both the journals.

Considering the above detailed data characteristics a comparative estimation of both the journals is viewed applying a statistical method Chi-Square ($x^2$) Test.

### Table-7.4: Authorship pattern & Degree of Collaboration of papers

| | | Language Sciences | | | | | | | | Linguistics and Education | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No. | Authorship pattern of papers | Total No. Of Authors | No. of papers | Degree of collaboration | % | C.F. | C.P | Sl. No. | Authorship pattern of papers | Total No. Of Authors | No of papers | Degree of collaboration | % | C.F. | C.P. |
| 1 | Single author | 700 | 700 | | 77.78 | 700 | 77.78 | 1 | Single author | 680 | 680 | | 75.56 | 680 | 75.56 |
| 2 | Two authors | 242 | 121 | | 13.44 | 821 | 91.22 | 2 | Two author | 272 | 136 | | 15.11 | 816 | 90.67 |
| 3 | Three authors | 189 | 63 | | 7 | 884 | 98.22 | 3 | Three author | 207 | 69 | | 7.67 | 885 | 98.33 |
| 4 | Four authors | 20 | 5 | 0.22 | 0.56 | 889 | 98.78 | 4 | Four author | 36 | 9 | 0.24 | 1 | 894 | 99.33 |
| 5 | Five authors | 25 | 5 | | 0.56 | 894 | 99.33 | 5 | Five author | 25 | 5 | | 0.56 | 899 | 99.89 |
| 6 | Six author | 38 | 6 | | 0.67 | 900 | 100 | 6 | Six author | 9 | 1 | | 0.11 | 900 | 100 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *s &\nMore* | | | | | | | *s &\nMore* | | | | | |
| *Grand\nTotal* | *1214* | *900* | | *100* | *90\n0* | *100* | *Grand\nTotal* | 1229 | 900 | | 100 | *90\n0* | 100 |

The table number 7.4 considers authorship pattern and degree of collaboration of papers of two international journals such as: '*Language Sciences*', and 'Linguistics and Education'. As far as the both journals outcomes are concerned an overwhelming majority of papers 77.78 % and 75.56 % were single authored, and less than one fourth papers are produced by collaborated authors'. Since, the degree of authors' collaboration of both journal papers is 0.22 and 0.24 denotes unilateral authorship is significantly dominating over collaborated authorship.

**Table-7.5 (A): Top 15 Authors with Institutional Affiliation of Journal "Language Sciences"**

| Sl. No | Name of Author | Affiliation to Institution | No. of papers | % | C. F. | Rank | Mean of Papers per author | Mean of Papers per Institution |
|---|---|---|---|---|---|---|---|---|
| 1 | Yuh-Fang Chang | National Chung Hsing University | 47 | 5.22 | 47 | 1 | | |
| 2 | Cliff Goddard | University of New England | 42 | 4.67 | 89 | 2 | | |
| 3 | Lyle Campbell | University of Canterbury | 41 | 4.56 | 130 | 3 | *4.20* | *5.88* |
| 4 | Paul Matychu | Andrews University | 33 | 3.67 | 163 | 4 | | |
| 5 | Christophe Parisse | LEAPLE, UMR | 23 | 2.55 | 186 | 5 | | |
| 6 | Anna Wierzbicka | Australian National University | 20 | 2.22 | 206 | 6 | | |
| 7 | Ana Deumert | Monash University | 19 | 2.11 | 225 | 7 | | |
| 8 | Christopher S. Butler | University of Wales Swansea, | 18 | 2.00 | 243 | 8 | | |
| 9 | Talbot J. Taylor | College of William and Mary, | 17 | 1.89 | 260 | 9 | | |
| 10 | Naomi S Baron | American University, | 16 | 1.77 | 276 | 10 | | |
| 11 | Ewa Dąbrowska | University of Sheffield, | 15 | 1.66 | 291 | 11 | | |
| 12 | Fieke Van der Gucht | Ghent University, | 15 | 1.66 | 306 | 11 | | |
| 13 | Miguel Casas Gómez | Universidad de Cádiz, | 15 | 1.66 | 321 | 11 | | |
| 14 | Nigel Love | University of Cape Town | 14 | 1.55 | 335 | 12 | | |
| 15 | Philip Seargeant | The Open University | 14 | 1.55 | 349 | 12 | | |
| *Total* | *15 Authors* | *15 Affiliated Institutions* | *349* | *38.77* | *349* | * | | |
| *Others* | *197 Authors* | *136 Affiliated Institutions* | *549* | *61* | *898* | * | | |

| Grand Total | 212+Data not available 02=214 *(Unique Authors) | 151+Data about Inst. not available in 02 papers =153 | 898+2=900 | 100 | 900 | * | | |
|---|---|---|---|---|---|---|---|---|

Scientists, researchers and scholars produce information, a significant part of which is often published in refereed sources such as: journals/periodicals, research reports, conference proceedings, seminar volumes etc. Publications are information products, whose essence is to inform and educate the existing and forth coming members on pioneering, scientific and research interests. Universities and research centers use publication and citation counts to monitor the performance of their researchers and give raises and promotions. The number of publications by a scholar or institution/country is an indicator of their strength or weakness in research or level of production of new knowledge. In ranking authors/scholars aggregate number of publications adds to their credit is one of the most important measures is discussed in the above table.

The table no. 7.5 (A) connotes that, *Yuh-Fang Chang* affiliated to National Chung Hsing University got rank one with highest number of papers 47 (5.22%), followed by *Cliff Goddard,* and *Lyle Campbell* affiliated to University of New England, and University of Canterbury adds 42 (4.67%) and 41 (4.56%) papers which cause to rank 2nd and 3rd among top 15 authors of journal "Language Sciences". Furthermore, remaining 13 authors contributed 33-14 number of papers in a descending order and got their respective ranks 4th to 12th. In an average estimation it is found that, mean papers per author is 4.20 and mean of papers per institution is 5.88.

**Table-7.5 (B): Top 15 Authors with Institutional Affiliation of Journal "Linguistics and Education"**

| Sl. No | Name of Author | Affiliation to Institution | No. of papers | % | C. F. | Rank | Average Papers per author | Average Papers per Institution |
|---|---|---|---|---|---|---|---|---|
| 1 | Angela Creese | University of Birmingham | 27 | 3 | 27 | 1 | | |
| 2 | Vera F utiérrez-Clellen | San Diego State University | 25 | 2.78 | 52 | 2 | | |
| 3 | Constant Leung | King's College London | 24 | 2.67 | 76 | 3 | | |
| 4 | J.R. Martin | University of Sydney | 22 | 2.44 | 98 | 4 | | |
| 5 | Richard Barwell | University of Bristol | 21 | 2.33 | 119 | 5 | | |
| 6 | Mary J | University of | 20 | 2.22 | 139 | 6 | | |

| | | | | | | | 4.36 | 5.92 |
|---|---|---|---|---|---|---|---|---|
| | Schleppegrell | California | | | | | | |
| 7 | Ross Forman | University of Technology | 20 | 2.22 | 159 | 6 | | |
| 8 | Tina Sharpe | Sharpe Consulting (NSW) | 19 | 2.11 | 178 | 7 | | |
| 9 | James Paul Gee | University of Wisconsin at Madison | 17 | 1.89 | 195 | 8 | | |
| 10 | Tarja Nikula | University of Jyväskylä | 17 | 1.89 | 212 | 8 | | |
| 11 | Susan Hood | University of Technology | 16 | 1.78 | 228 | 9 | | |
| 12 | Valerie Hobbs | University of Sheffield, | 16 | 1.78 | 244 | 9 | | |
| 13 | Patricia A Duff | University of British Columbia | 13 | 1.44 | 257 | 10 | | |
| 14 | Aria Razfa | University of Illinois | 12 | 1.33 | 269 | 11 | | |
| 15 | James Collins | State University of New York | 12 | 1.33 | 281 | 11 | | |
| Total | 15 Authors | 15 Affiliated Institutions | 281 | 31.22 | 281 | * | | |
| Others | 191 Authors | 137Affiliated Institutions | 619 | 68.77 | 900 | * | | |
| Grand Total | 206 Authors *(Unique Authors) | 152 Affiliated Institutions | 900 | 100 | 900 | * | | |

Table 7.5 (B) demonstrates the top 15 authors with institutional affiliation participated in publication with journal 'Linguistics and Education'. Among top 15 authors 'Angela Creese' affiliated to University of Birmingham achieved rank one with 27 (3%) papers, followed by 'Vera F utiérrez-Clellen' of San Diego State University; 'Constant Leung' of King's College London; 'J.R. Martin' of University of Sydney; and 'Richard Barwell' of University of Bristol produced 25 (2.78%), 24 (2.67%), 22 (2.44%), and 21 (2.33%) papers and got rank 2nd to 5th considerably on the basis of their frequency of publication of research papers. Moreover, remaining 10 scholars contributed the number of papers 20 to 12 to their credit in descending order of cited frequency of papers, and placed at rank 6th to 11th in ascending order of cited frequency of rank respectively. Hence, the resultant data of table 5 (B) illustrates that there is no much variability in production of papers among top 15 authors.

**Table-7.6: Geographical Analysis of Papers Published in Journal "Language Sciences" & "Linguistics and Education"**

| *Language Sciences* | | | | | | | Linguistics and Education | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No. | Name of Country | No. of papers | % | C. F. | C.P | Rank | Sl. No. | Name of Country | No. of papers | % | C. F. | C.P | Rank |
| 1 | USA | 139 | 15.44 | 139 | 15.44 | 1 | 1 | USA | 220 | 24.44 | 220 | 24.44 | 1 |
| 2 | Australia | 111 | 12.33 | 250 | 27.78 | 2 | 2 | UK | 164 | 18.22 | 384 | 42.67 | 2 |
| 3 | UK | 83 | 9.22 | 333 | 37 | 3 | 3 | USA | 134 | 14.89 | 518 | 57.57 | 3 |
| 4 | USA | 69 | 7.75 | 402 | 44.67 | 4 | 4 | Australia | 134 | 14.89 | 652 | 72.44 | 3 |
| 5 | Taiwan | 55 | 6.11 | 457 | 50.78 | 5 | 5 | Canada | 52 | 5.78 | 704 | 5.78 | 4 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | France | 47 | 5.22 | 504 | 56 | 6 | 6 | Spain | 37 | 4.11 | 741 | 82.33 | 5 |
| 7 | France | 47 | 5.22 | 551 | 61.22 | 6 | 7 | China | 32 | 3.56 | 773 | 85.89 | 6 |
| 8 | South Africa | 41 | 4.55 | 592 | 65.78 | 7 | 8 | Singapore | 26 | 2.89 | 799 | 88.78 | 7 |
| 9 | Belgium | 38 | 4.22 | 630 | 70 | 8 | 9 | Finland | 18 | 2 | 817 | 90.79 | 8 |
| 10 | Spain | 29 | 3.22 | 659 | 73.22 | 9 | 10 | The Netherlands | 14 | 1.56 | 831 | 92.33 | 9 |
| 11 | Hong Kong | 24 | 2.66 | 683 | 75.89 | 10 | 11 | New Zealand | 11 | 1.22 | 842 | 93.56 | 10 |
| 12 | Germany | 18 | 2 | 701 | 77.89 | 11 | 12 | Hungary | 11 | 1.22 | 853 | 94.78 | 10 |
| 13 | Israel | 18 | 2 | 719 | 79.89 | 11 | 13 | Hong Kong | 10 | 1.11 | 863 | 95.89 | 11 |
| 14 | The Netherlands | 16 | 1.78 | 735 | 81.67 | 12 | 14 | Belgium | 8 | 0.89 | 871 | 96.78 | 12 |
| 15 | Singapore | 16 | 1.78 | 751 | 82.43 | 12 | 15 | Africa | 1 | 0.11 | 872 | 96.89 | 13 |
| 16 | Iran | 12 | 1.33 | 763 | 84.78 | 13 | 16 | England | 1 | 0.11 | 873 | 97 | 13 |
| 17 | The Netherlands | 12 | 1.33 | 775 | 86.11 | 13 | 17 | south Africa | 1 | 0.11 | 874 | 97.11 | 13 |
| 18 | Canada | 10 | 1.11 | 785 | 87.22 | 14 | 18 | Sweden | 1 | 0.11 | 875 | 97.22 | 13 |
| Other | 19 Countries collectively contribute | 88 | 9.77 | 873 | 97 | * | other | Not Available | 25 | 2.78 | 900 | 100 | * |
| Total | Data on country of origin not available | 27 | 3 | 900 | 100 | * | Grand Total | | 900 | 100 | 900 | 100 | * |
| Grand Total | * | 900 | 100 | 900 | 100 | * | * | | * | * | * | * | * |

This above cited table examines the feasibility of establishing a common approach to evaluating the outputs and outcomes of research papers of two journals including the possibility of defining robust benchmarks for cross-national comparison. The cross-national approach to research publication allows comparing performance and tendencies among the researchers of different geographical areas of the global village a powerful motivator for growth and development research activities that highlights the strength and weakness among nations is the fundamental and universal research practices in the area of library and information science study. However, the table number 6 witnessing the geographical analysis of papers published in two international journals such as: 'Language Sciences', 'Linguistics and Education' and ascertains that, USA is the leading country in both the journals which alone shares 139 (15.44%), 220 (24.44%) papers in 1st and 2nd journal and stands with rank one, followed by Australia 2nd rank as well as UK 3rd rank with 111 (12.33%) and 83 (9.22%) papers in 1st journal, while in 2nd journal UK and US achieves 2nd and 3rd rank accounting 164 (18.22%) and 134 (14.89%) papers to their credit respectively. Moreover, it is most needed to notice here that instead of first three ranking countries out of top 18 in both the journals all remaining countries addressing disparities in publication with their corresponding figures is even found expressive and interesting.

**Table-7.7: Top 20 Productive Institutions/Institutional Contributors'**

| | Language Sciences | | | | | | Linguistics and Education | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No. | Name of Institution | Name of Country | No. of Papers | % | C. F. | Sl. No. | Name of Institution | Name of Country | No. Of Papers | % | C. F. |
| 1 | National Chung Hsing University | Taiwan | 47 | 5.40 | 47 | 1 | University of California | Canada | 62 | 6.89 | 62 |
| 2 | University of New England | Australia | 42 | 4.83 | 89 | 2 | University of British Columbia | USA | 36 | 4 | 98 |
| 3 | University of Canterbury | New Zealand | 41 | 4.71 | 130 | 3 | University of Technology | China | 36 | 4 | 134 |
| 4 | Andrews University | USA | 32 | 3.68 | 162 | 4 | King's College London | Canada | 35 | 3.89 | 169 |
| 5 | Ghent University | Belgium | 28 | 3.22 | 190 | 5 | San Diego State University | Spain | 31 | 3.44 | 200 |
| 6 | Monash University | Australia | 27 | 3.10 | 217 | 6 | University of Sydney | USA | 28 | 3.11 | 228 |
| 7 | University of Cape Town | South Africa | 25 | 2.87 | 242 | 7 | University of Birmingha | USA | 27 | 3 | 255 |
| 8 | Leaple, UMR | France | 23 | 2.64 | 265 | 8 | University of Bristol | USA | 25 | 2.78 | 280 |
| 9 | Max Planck Institute for Psycholinguistics | The Netherlands | 22 | 2.53 | 287 | 9 | University of London | Australia | 23 | 2.56 | 303 |
| 10 | The University of Hong Kong | Hong Kong | 20 | 2.30 | 307 | 10 | University of Sheffield | USA | 22 | 2.44 | 325 |
| 11 | Australian National University | Australia | 19 | 5.14 | 326 | 11 | Sharpe Consulting (NSW), | USA | 19 | 2.11 | 344 |
| 12 | College of William and Mary | USA | 18 | 3.22 | 344 | 12 | University of Jyväskylä | Spain | 18 | 2 | 362 |
| 13 | University of Wales Swansea | UK | 18 | 3.22 | 362 | 13 | University of Wisconsin at Madison | USA | 17 | 1.89 | 379 |
| 14 | American University | USA | 16 | 1.84 | 378 | 14 | Arizona State University, | USA | 14 | 1.56 | 393 |
| 15 | Baikal National University of Economics and Law | Russia | 16 | 1.84 | 394 | 15 | National Institute of Education | USA | 14 | 1.56 | 407 |
| 16 | University of Sheffield | UK | 16 | 1.84 | 410 | 16 | University of Leeds | UK | 14 | 1.56 | 421 |
| 17 | The Open University | UK | 14 | 1.61 | 424 | 17 | University of New England | UK | 14 | 1.56 | 435 |
| 18 | Universidad de Cádiz | Spain | 14 | 1.61 | 438 | 18 | Columbia University | Canada | 13 | 1.44 | 448 |
| 19 | University of California | USA | 14 | 1.61 | 452 | 19 | Northern Arizona University | UK | 13 | 1.44 | 461 |
| 20 | National University of Singapore | Singapore | 13 | 1.49 | 465 | 20 | Universitat Autònoma de Barcelona | USA | 13 | 1.44 | 474 |
| | Total Publication of 20 Institutions | | 465 | 51.66 | 465 | | Total Publication of 20 Institutions | | 474 | 52.66 | 474 |

| Oth ers | 130 Instituti ons | 49 Countrie s | 432 | 48 | 897 | Oth ers | 107 Institutions | 41 Countries | 401 | 44.55 | 875 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Data not Availabl e on Inst. | 03 | 0.33 | 900 | | Total | Data not Available on Inst. | 25 | 2.77 | 900 |
| Grand Total | | * | 900 | 100 | 900 | Grand Total | | * | 900 | 100 | 900 |

The present table no. 7.7 is evident to highlight and to understand the aspects which are related to institutional contributors', and to trace these trends top 20 prolific institutions are ranked on the basis of their frequency of research productivity in two international journals. It is found that, 'National Chung Hsing University' of Taiwan, and 'University of California' of Canada are most prolific institutions having been contributed 47 (5.40%) and 62 (6.89%) papers is highest among top 20 institutional contributors' of both journals. Besides, 'University of New England' of Australia; 'University of Canterbury' of New Zealand became 2nd and 3rd ranking country with papers 42 (4.83%) and 41 (4.71%) in 1st journal, while 'University of British Columbia' of US and 'University of Technology' of China got 2nd rank with 36 (4%) papers each in 2nd journal respectively. Furthermore, from the above table it is ascertained that all top 20 productive institutions belongs to 13 countries such as: *Taiwan, Australia, New Zealand, USA, Belgium, South Africa, France, The Netherlands, Hong Kong, UK, Russia, Spain, Singapore of 1st journal, whereas in 2nd journal top 20 productive institutions are belongs to only 7 countries such as:* Canada, US, China, Spain, Australia, USA, UK, as the study explores.

*Table-7.8: Citation Pattern of Publication*

| Language Sciences | | | | | Linguistics and Education | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No. | Citation Pattern | No. of papers | % | C.F. | C.P | Sl. No. | Citation Pattern | No. of papers | % | C.F. | C.P. |
| 1 | 1-25 | 853 | 94.78 | 853 | 94.78 | 1 | 1-25 | 734 | 81.56 | 734 | 81.56 |
| 2 | 26-50 | 37 | 4.11 | 890 | 98.89 | 2 | 26-50 | 57 | 6.33 | 791 | 87.89 |
| 3 | 51-75 | 10 | 1.11 | 900 | 0.01 | 3 | 51-75 | 22 | 2.44 | 813 | 90.33 |
| Grand Total | | 900 | 100 | 900 | 100 | 4 | Citation Data not available | 87 | 9.67 | 900 | 100 |
| | | | | | | Grand Total | | 900 | 100 | 900 | 100 |

By and large, analyzing the citation pattern of research papers is a vital part of quantitative study is comprehensively discussed here as per the data tabulated in table number 7.8. The citation pattern of papers professes the degree of use/download of papers by the scholars or researchers for their

research work. The papers receive higher or more citations are accepted a good research work. In this context the table no. 8 connotes that majority number of papers i. e. in 1st journal 94.78 % and 2nd journal 81.56 % have received citations up to 25 is found benchmarking, while remaining a meager number of papers of both the journals received citations from 26-75 as the study unearths. A statistical method Chi-Square ($x^2$) test is applied over the data and a comparative vision of citation pattern of papers of both the journals are portrayed as follows:

**Application of Chi-Square ($x^2$) test over table number 7.8**

| "O" Table | "E" Table | $X^2$ Calculated Value (CV) | Hy: H3: There is no variation among the journals in citation pattern of their papers. |
|---|---|---|---|
| 853 | 793.5 | 4.46 | |
| 37 | 47 | 2.12 | |
| 10 | 16 | 2.25 | Degree of Freedom (V)=3 ; $X^2$ Calculated Value (CV)=104.66 ; Tabulated Value (TV) at 0.050 or 95 % level of significance is 7.81 |
| 00 | 43.5 | 43.5 | |
| 734 | 793.5 | 4.46 | |
| 57 | 47 | 2.12 | |
| 22 | 16 | 2.25 | |
| 87 | 43.5 | 43.5 | |
| | | $X^2$ (CV)=104.66 | Applying Chi-Square ($x^2$) test using Formula $x^2$ $(o-e)^2/e$ it is ascertained that: |
| | | | At (0.050) 95% level of significance $X^2$ tabulated value is 7.81, while calculated value is 104.66. As calculated value of $X^2$ 104.66 is greater than tabulated value 7.81 for which the hypothesis stands false or rejected which means the citation patterns of papers of both journals are significantly varied from each other. |

**Table-7.9: Pagination Pattern of Papers**

| | Language Sciences | | | | | | | Linguistics and Education | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sl. No. | Pattern of Pagination | No. of papers | % | C.F | C.P | Rank | Sl. No. | Pattern of Pagination | No. of papers | % | C.F | C.P | Rank |
| 1 | 1-5 | 20 | 2.22 | 20 | 2.22 | 7 | 1 | 1-5 | 18 | 2 | 18 | 2 | 6 |
| 2 | 6-10 | 60 | 6.67 | 80 | 8.89 | 6 | 2 | 6-10 | 15 | 1.67 | 33 | 3.67 | 7 |
| 3 | 11-15 | 242 | 26.89 | 322 | 35.78 | 1 | 3 | 11-15 | 297 | 33 | 330 | 36.67 | 1 |
| 4 | 16-20 | 186 | 20.66 | 508 | 56.11 | 2 | 4 | 16-20 | 273 | 30.33 | 603 | 67 | 2 |
| 5 | 21-25 | 140 | 15.56 | 648 | 72 | 4 | 5 | 21-25 | 150 | 16.67 | 753 | 83.67 | 3 |
| 6 | 26-30 | 83 | 9.22 | 731 | 81.22 | 5 | 6 | 26-30 | 66 | 7.33 | 819 | 91 | 5 |
| 7 | 31 and above | 169 | 18.78 | 900 | 100 | 3 | 7 | 31 and above | 81 | 3.44 | 900 | 100 | 4 |
| Grand Total | | 900 | 100 | 900 | 100 | * | Grand Total | | 900 | 100 | 900 | 100 | * |

Examining the pagination pattern of research papers is an inseparable part of scientometrics/bibliometrics study is most prolific in library and information science research. The table number 7.9 moots and explore that, the highest number of papers carries most commonly used pagination pattern 11-15 in both the journals which accounts papers 242 (26.89%) in 1st journal,

and 297 (33%) in 2nd journal respectively, followed by the pagination pattern 16-20, carries 186 (20.66%), and 273 (30.33%) papers which ranked 2nd in both journals LSs and L&E respectively. Moreover, accounting papers 169 (18.78%) and 140 (15.56%) having pagination pattern '31 and above'; '21-25' ranked with 3rd and 4th in journal LSs, whereas in regard to 2nd journal the pagination pattern '21-25'; '31 and above' got rank 3rd and 4th with papers 150 (16.67%); 81 (3.44%) shows as reverse as 1st journal. For more clarity the researchers have applied a statistical method Chi-Square ($x^2$) test over the table 10 for mapping a comparison in pagination pattern of papers of both the journals '*LSs*' and '*L&E*' as stated below:

### Application of Chi-Square ($x^2$) test over table number 7.9

| "O" Table | "E" Table | $X^2$ Calculated Value (CV) | Hy: H4: Pagination pattern of papers of both journals are not significantly different. |
|---|---|---|---|
| 20 | 19 | 0.05 | |
| 60 | 37.5 | 13.5 | |
| 242 | 269.5 | 2.80 | Degree of Freedom (V)=6 ; $X^2$ Calculated Value (CV)=82.4; Tabulated |
| 186 | 229.5 | 8.24 | Value (TV) at 0.050 or 95 % level of significance is 12.59 |
| 140 | 145 | 0.17 | |
| 83 | 74.5 | 0.96 | |
| 169 | 125 | 15.48 | Applying Chi-Square ($x^2$) test using Formula $x^2$ $(o-e)^2/e$ it is |
| 18 | 19 | 0.05 | ascertained that: |
| 15 | 37.5 | 13.5 | |
| 297 | 269.5 | 2.80 | |
| 273 | 229.5 | 8.24 | At (0.050) 95% level of significance $X^2$ tabulated value is 12.59, |
| 150 | 145 | 0.17 | while calculated value is 82.4. As calculated value of $X^2$ 82.4 is |
| 66 | 74.5 | 0.96 | greater than tabulated value 12.59 for which the hypothesis stands |
| 81 | 125 | 15.48 | false or rejected which means the pagination pattern of papers of |
| | | $X^2$ (CV)=82.4 | both journals are significantly varied from each other. |

## 07. Major Findings

07.i    When approaching the task of Chronological Analysis of Papers on the basis of the Year of Publication in Source Journal the study explores that, the mean of papers per year is 47.36 and 50 in journals '*Language Sciences*', and '*Linguistics and Education*' respectively.

07. ii   With respect to the authorship pattern of papers the present work illustrates that, 'solo authorship' is the principal pattern which dominates over 'collaborative authorship' in both the journals.

07. iii  Authors' ranking is one of the striking part in a bibliometric study which is unavoidable and worth publishing. As the study

proves that, 'Yuh-Fang Chang', and 'Angela Creese' author posed first rank accounting highest number of papers to their credit such as: 47 and 27 in first and second journal respectively.

07. iv **N*ull hypothesis stands true or accepted and it is concluded that, there is no significant variation in the mean estimation of research papers of both journals with the application of* Chi-Square ($x^2$) test.

07.v It is also interesting to focus over the geographical contributors as addressed in the present study discloses that, USA is one of the pride regions of the globe to have largest number of papers i. e. 139 and 220 contribution to both journals categorically is quite significant.

07.vi It is a scholarship of excellence to highlight the institutional contributors as the resultant data discovers in the present study, '*National Chung Hsing University*' of Taiwan, and 'University of California' of Canada are top ranking players in terms of their research productivity such as: 47 and 62 number of papers contributed to two different journals.

07. Vii In light of the citation pattern of papers the outcomes indicates the credibility of degree of usage of papers by different scholars, researchers, investigators and academics. In this context the present study connotes that, 853, and 734, a wide number of papers under two different journals receive 1-25 citations, which accounts approximately 95, and 82 percent of total citations.

07. Viii Applying Chi-Square ($x^2$) test using Formula $x^2$ $(o-e)^2/e$ the citation patterns of papers of both journals are significantly varied from each other and the hypothesis stands false or rejected.

07. ix In the investigation of pagination pattern of whole papers undertaken for the present study unfolds that 242, and 297, both journal papers page length is preferably 11-15 pages as shown in table 10, which denotes a sign of narrower opportunity to the authors/researchers for presenting their research literature with devoid of a wider page limits, although certain papers are found to have pages range from 31 and above in both journals.

07. x       Applying Chi-Square ($x^2$) test using Formula $x^2$ $(o-e)^2/e$ it is ascertained that, the pagination pattern of papers of both journals are significantly varied from each other and the hypothesis stands false.

## *8.    Conclusion*

In conclusion, the finding of the present study corroborates and provides an attractive snapshot of research trend of leading researchers, scholars, authors, Geographical and institutional contributors at international arena. The study views that, the unilateral authorship pattern is significantly dominating over collaborated authorship found prominence in above two journals. By and large, the USA claims leadership in competitive positioning among other geographical contributors with increasing number of research output as seen in both the journals undertaken for the present work. As those institutions such as: *National Chung Hsing University* of Taiwan and University of California of Canada that achieve top rank among the most prominent in terms of research productivity hosts 47 and 62 papers respectively in two different journals which might be expressed as a prolific nature of scholarship. Conclusively, the researchers are so far agree and hope the present work findings have important implications for library practitioners, and must enhance the scholarship of prominence in the area of research as an opportunity for the forth coming researchers, scholars and academics as a whole.

**Reference**

1.    Dutt, B., Garg, K.C., & Bali, A. (2003).Scientometrics of the international journal Scientometrics. Scientometrics. **56**(1): 81-93.
2.    Moin, M., Mahmoudi, M., & Rezaei, N. (2005).Scientific output in Iran at the threshold of the 21st century. Scientometrics.62: 239–248.
3.    Mukherjee, B. (2008).Scholarly literature from selected universities of Delhi and Uttar Pradesh: A pilot study. LIBRES.18(1). Retrieved from http://libres.curtin.edu.au/libres18n1/Mukherjee_Final_rev.pdf

4.    Garfield, E. From The Science of Science to Scientometrics: Visualizing the history of science with HistCite software. Presented at 11th ISSI Itnernational Conference, Madrid, 25 June 2012. Retrieved from http://www.garfield.library.upenn.edu/papers/issispain2007.pdf
5.    Glossary of Thompson scientific terminology. The Thompson Corporation. 2008. Retrieved from <http://science.thomsonreuters.com/support/patents/patinf/terms/>
6.    Hood, W.W. & Wilson, C. (2001).The literature of bibliometrics, scientometrics, and informetrics. Scientometrics. 52 (2): 291–314.
7.    Lolis, S. F. & et. al. (2009).Scientometrics analysis of energetic ecology: Primary production of aquatic macrophytes. Maringá. 31 (4): 363-369.
8.    Meadow, C.A. and Zaorowski, M.A. (1979).Some statistical aspects of JASIS publications. Journal of the American Society for Information Science. 30 (6): 368-71.

9.     Sethi, B B and Panda, K C. (2014).Measuring Research Excellence with two journals in Social Sciences: A Scientometric sketch. Library Philosophy and Practice. paper 1051. (Available  at: http://digitalcommons.unl.edu/libphilprac/1051)
10.    Subramanyam. K. (1982).Bibliometric Study of Research Collaboration:   A Review. Journal of Information Science. **6:** 33-38.
11.    Tague-Sutcliffe, J. M. (1992).An introduction to Informetrics. Information Processing & Management. 28: 1-3.
12.    Van Raan, A. F. J. (1997).Scientometrics: State-of-the-art. Scientometrics. 38: 205–218.(Retrieved from: *http://en.wikipedia.org/wiki/Scientometrics*)
13.    *http://en.wikipedia.org/wiki/Scientometrics/*
14.    *http://en.wikipedia.org/wiki/Scientometrics*