

Citation Impact and Pattern of Co-authorship of Cardiology Journals in G8 countries.

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Abstract

This paper describes the Scientometrics indicators of the cardiology Journals in G8 Countries. This study concentrate that Citation impact of the journal in cardiology, the

9726 no of journals published in G8 Countries of this high value of impact Factor produced the chest 0.438 the cited journals obtained from the Web of science. Pattern of Co-authorship, pattern of co-authorship in different blocks. This study indicates that the US has bees contributed rise while that of the UK, Japan, Italy, France, Germany, and Canada and Russia in on the decline. The Scientometric output is dominated by the single authored -papers and multi authored papers study emphasis on domestic and International Collaboration.

Introduction

The important scholarly communication media journals play a primary role in the Disseminating the scholarly information within and between disciplines. Not surprisingly the value of the journals in an academic discipline is significant to both individual academics and to the scholarly community. Traditionally studies evaluating the overall quality of the journals have focused on peer assessment through subjective opinion surveys. However based on the normative perspective of citation which views Citing as a merit-granting process it is plausible to assume that the information values of a given publication is reflected by the frequency of citation obtained from other publications.(WEIPING YUE,CONCEPCIONS and WILSON, 2004)." Interrelationship among

journal Citation impact and four external factors i.e. journal characteristics, journal accessibility, journal visibility and journal internationality have been successfully explored, and the conceptual model of journal evaluation has been examined.

Therefore Citations counts can be used as indicators or measurements of the level of quality, importance, Influence or performance of individual publications or aggregations of publication, such as journals (WILSON, 1999)". The past decades, citation analysis has been extensively used as practical alternative to subjective judgmental approaches. Journal citation indicators from the institute of Scientific Information (ISI) have become popular measures in assessing journal performance, in particular the journal impact factor and the number of total Citations.

Methodology

This study identifies the authorship pattern of G8 countries in cardiology Journals which have been classified as Single authored, Two authored and Multi authored the studies also deals that authorship patterns block wise There are three blocks divided as 1964-1977,1978-1991 and 1992-2006.This research observed that Journal Citation Impact of Cardiology in G8 countries.

Pattern of Co-authorship

To analyze the pattern of co-authorship, the entire data was divided into single authored two authored and multi authored (=3) papers. The results of the pattern of Co-authorship are given in below table, the results presented in the table indicates that slightly more. The share of multi-authored papers (=3) is much high (8.5%) only as compared to single or two authored papers.

The pattern of Co-authorship among different countries have been examined by making use of collaborative Co-efficient (CC) suggested by

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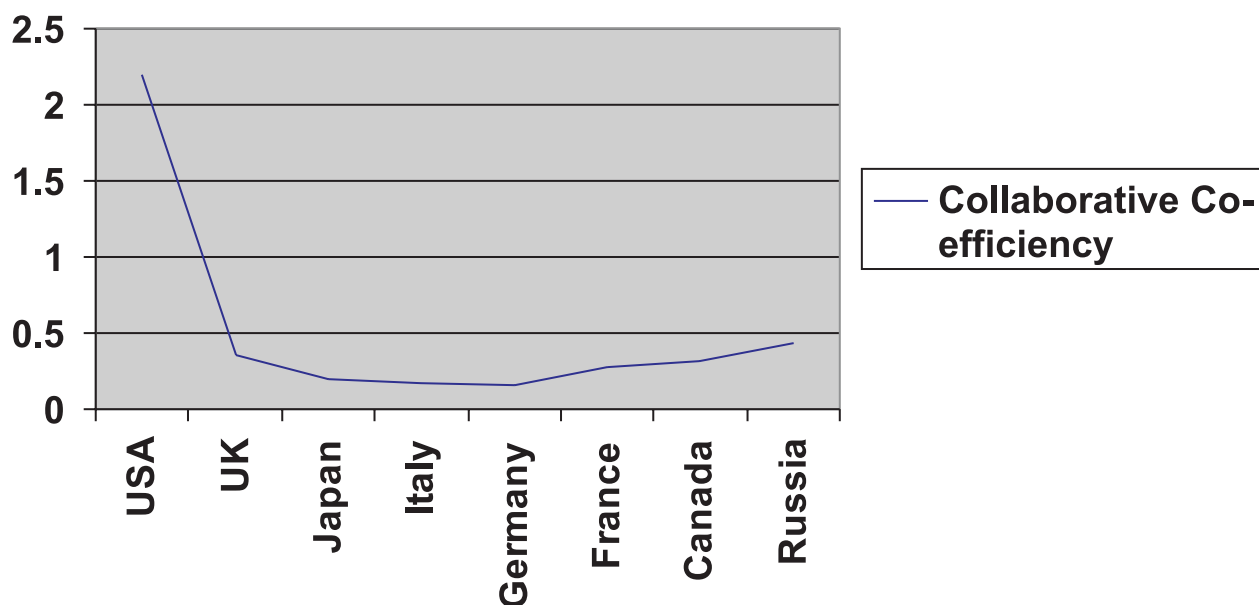
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Cunningham and Dillon for authorship pattern in Library and Information Science is 1.17. In Scientometrics the average number of authors per paper is 1.73 which indicates a better Collaboration than Library and Information Science.

The present study deals with value of CC for USA is highest(2.22) followed by Russia (0.44), UK(0.36), Canada(0.32), France(0.27), Japan(0.20),Italy(1.7),Germany(1.6) which indicates that these countries have a better collaboration in comparison to other countries in the table .

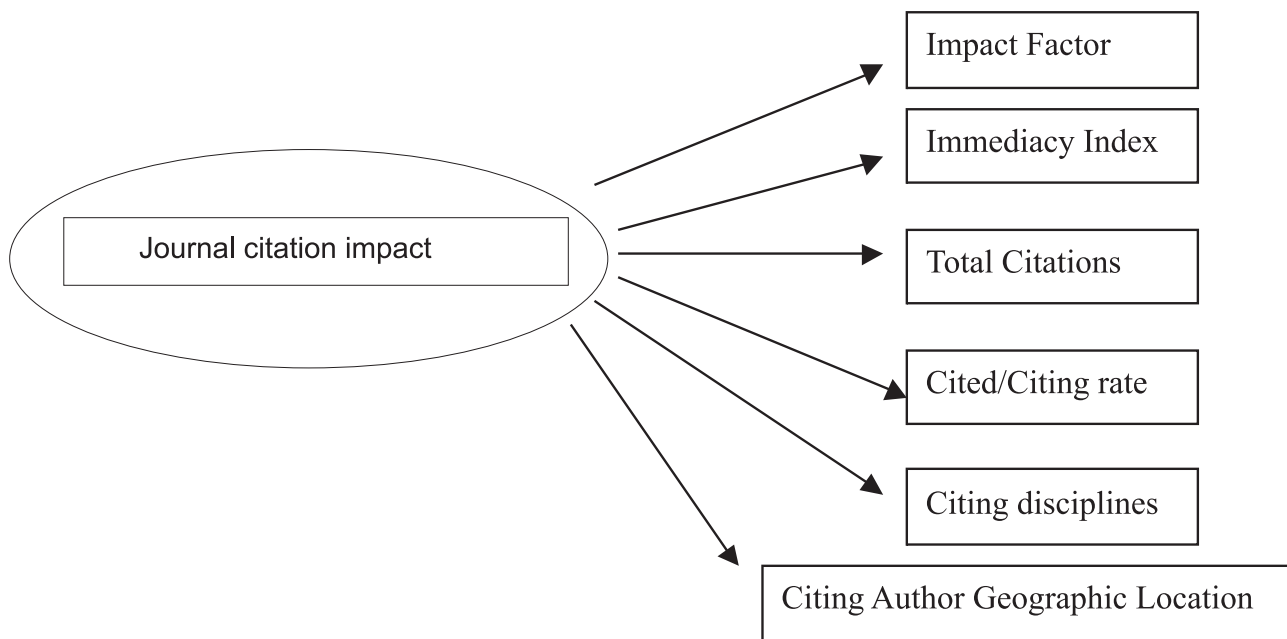
Table 1: Pattern of co-authorship

Country	Single	Two Authored	Multi authored	Total authored	Collaborative Co-Efficiency
USA	1242	1200	2900	5342	2.22
UK	896	926	699	2521	0.36
Japan	63	38	83	184	0.20
Italy	294	96	144	534	0.17
Germany	327	72	38	437	0.16
France	196	88	40	324	0.27
Canada	124	93	73	290	0.32
Russia	29	42	23	94	0.44
Total	3171 (32.6%)	2555 (26.2%)	4000 (41.1%)	9726(100%)	0.26



Journal Citation Impact

The indicators of citation impact used in this study are either obtained or calculated from the web of science data. The Cited half-life may be regarded as an impact indicator. However we have not included this in our study as many of the journals have either no values or values >10.



Impact factor

The journal impact factor measure of the frequency with which the “average article” in a journal has been cited in a particular year. The web of science impact factor for the year 2006 is used.

Immediacy index

The Journal immediacy index is a measure of how quickly the “average article “in a journal is cited and for this study the 2006 immediately index is used.

Total citations

The indicator for total Citations refers to the number of citations to articles in a journal for the year 2006.

Cited/Citing rate

In previous study, Cited/Citing rate was regarded as a quality index of scientific journals (PRICE,1981:PINSKY&NARIN,1976) or the input/output ratio reflecting the status of the journal in a given network(KIM 1992).In our study, this indicator is calculated by dividing the total number of references that the same journal has given, both numbers are for the year 2006.

Citing Disciplines

Citing disciplines refer to the extend of the inter or Multidisciplinary impact fact of the journal. It can be traced through the analysis of subject

areas where Citations are coming from (WORMEL,1998). It is measured by the number of citing disciplines, obtained by using dialog to search all the citations of each journal in cardiology for the year 2006 and then ranking the journal Subject category (SC) field.

Citing author geographic locations (GL) or the country affiliation of all citing authors in particular journal in 2006 can be obtained for the web of science

further the GL field can be ranked to produce a list of Countries in decreasing order productivity. Hence journal citation impact with respect to the Citing authors can be determined by the number of country affiliations of the citing authors.

Conclusion

This study observed that nature of the papers published in the G8 countries of cardiology journals indicates the author collaboration has been highly increased in USA, and followed by UK. The contribution of US papers in the journal of American college of Cardiology on the decline while the share of the Italy, Japan, France, Germany, Canada, and Russia is on the rise. The cardiology publication productivity is high comparatively other than G8 countries; because of G8 countries occupy prolific institutions their scientists producing more scientific papers regularly.

Annexure-I

Impact Factor of the Cardiology Journals in G8 Countries

S.No	Title of the Journal	No. of articles	Impact Factor
1	Chest	784	0.438
2	Heart (British Cardiac Society)	634	0.386
3	Cardiology	623	0.242
4	Resuscitation	541	0.356
5	PACE	408	0.358
6	Clinical Cardiology	297	0.294
7	Hypertension	280	0.192
8	Journal of Interventional Cardiology	262	0.434
9	Nursing Standard	260	0.536
10	Annals of Internal Medicine	228	0.586
11	Cardiovascular Research	213	0.592
12	Journal of Invasive Cardiology	209	0.523
13	Catherization and Cardiovascular Intervention	180	0.582
14	Medical Times	176	0.532
15	American Journal of Medicine	167	0.623
16	Pediatrics	165	0.562
17	Coronary artery disease	157	0.182
18	Pediatric Cardiology	152	0.324
19	Cardiology in the Young	150	0.265
20	Studies in health technology and Informatics	148	0.284
21	Circulation Research	146	0.186
22	Journal of Cardiology	145	0.312
23	Modern healthcare	139	0.437
24	Journal of Molecular and Cellular Cardiology	138	0.261
25	The Journal of American Medical	138	0.211
26	New England Journal of Medicine	132	0.194
27	British heart Journal	132	0.184
28	American heart journal	131	0.192
29	Circulation	131	0.237
30	Catherization and Cardiovascular diagnosis	130	0.287
31	Journal of cardio Vascular Management	126	0.321
32	Canadian Journal of Cardiology	126	0.129
33	Journal of the American College of Cardiology	124	0.174
34	Journal of General Internal medicine	121	0.213
35	American Journal of Physiology	120	0.312

S.N.	Title of Journal	No. of articles	Impact Factor
36	Journal of Nuclear Medicine	120	0.261
37	American Journal of Cardiology	119	0.321
38	International Journal of Cardiology	117	0.197
39	Archives of Internal medicine	117	0.214
40	Annals of thoracic surgery	117	0.251
41	Annals of Emergency Medicine	116	0.326
42	Journal of American Society of Echo Cardio grapy	116	0.218
43	Italian Heart Journal	115	0.192
44	Journal of Electro cardiology	115	325
45	Cardiology Clinics	112	0.187
46	Heart and Lung - The Journal o f Critical care	112	0.112
47	CMAJ	112	0.189
48	Journal of Nuclear cardiology	109	0.132
49	Current opinion in Cardiology	108	0.109
50	Journal of Telemedicine and telecare	108	0.106
Total		9726	

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