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Status of Literature in Knowledge Management in Web of Science (2007-2014): A Bibliometric Study

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Design/methodology/approach – A total numbers of 4371 items are collected from the source document "Web of Science", from the year 2007-2014.

Findings – The overall productivity of Knowledge Management (KM) works has been growing, reaching up to 495 publications per year from 2007 to 2014, but their productivity are somewhat irregular. Most of the literature of KM in Web of Science is published in non KM focal journals.

KM play a major role from the ancient time so there is differentiate in research by country wise.

The most productive top five countries in the field of KM research are USA, England, Taiwan, Spain, and China.

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I. Introduction

Due to the rapid growth of knowledge, librarians and information scientists face greater problems in acquisition, collection, organization and dissemination of relevant documents within limited financial resources. To overcome these problems, they need techniques by which they can use the limited financial resources to the optimum. Amongst the large number of techniques available, the bibliometrics is one of the effective techniques. The Bibliometric study is popular because it helps to improve scientific documentation, information and communication activities by quantitative analysis of library collections and services. Besides its specific research as a social activity, a quantitative analysis of the generation, propagation and utilization of scientific information aspect. It is well known fact that the knowledge is growing at a very fast rate and it is necessary that a new work and findings should be highlighted among the research scholars and others who interested in them. The present study will help the librarian in the selection of literature in the field of "knowledge management".

II. Knowledge Management

Knowledge management emerged during the mid-1990s and received considerable attention from many scholars and practitioners. Knowledge management has been practiced by numbers of fields associated with information systems, business and management, LIS, computer science, communication etc. Wen (2005) describes its emergence first in the business sector, then in higher education, and now in library management. Although the emergence of knowledge management can be traced to only last decade, Hawkins (2000) claims that for many in the academic world, knowledge management is an old concept, a function historically performed by librarians. Knowledge management in its simplest sense, can be described as the management of both explicit (recorded) and tacit knowledge. Knowledge management is an emerging key concern of many business organizations. The business model of knowledge management is now being adopted by many non-profit organizations like libraries. Different disciplines use the term "knowledge" to denote different things, and so defining it precisely and exactly is not easy. Nonaka and Takeuchi (1995) define knowledge management as the capability of an organization to create new knowledge, disseminate it throughout the organization, and embody it in products, services and systems. A comprehensive idea about knowledge management has been given by Davenport et al. (1998) as KM is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organizations objectives. The knowledge to be managed includes both explicit, documented knowledge, and tacit, subjective knowledge. Management entails all of these processes associated with the identification sharing and creation and maintenance of knowledge repositories, and to cultivate and facilitate the sharing of knowledge and organization learning.

Knowledge management can be broadly defined as the set of processes, tools, and techniques for the most effective and efficient use of the knowledge that can be accessed by an organization. Knowledge

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management aims to improve maintain, and create organizational capabilities to generate sustained competitive advantage. Knowledge management has been promoted as a valuable business concept for almost two decades. Although originally emerging in the world of business, the practice of knowledge management has now spread to the domain of non-profit and public sector organizations, including that of libraries. The goal of knowledge management is to effectively apply an organization's knowledge to create new knowledge to achieve and maintain competitive advantage (Alavi and leidner, 2001). KM is a combination of people, process and technology. This involves people from a wide variety of disciplines including, for example, information technology (IT), Psychology, LIS and human resource management (HRM).

III. Objectives of Study

The present study aims at identification and describing some of the characteristics of literature published in the field of "KM" over the period of 8 years (2007-2014) with a view to identify the place, language, year of publication, subject areas, forms of documents, country of origin etc. The specific objectives of the present study address the following aspects:

- To track the growth of scholarly publications on KM from 2007 to 2014.
- To explore the types of publications.
- To identify the most productive researchers in the field of KM in Library and Information Science.
- To prepare a ranked list of journals and to find out the core journals in the field of "KM".
- To know the most productive countries in the field of "KM".
- To identify the scattering of the publications under different subjects areas.
- To know the languages in which the most of literature on the KM has been published.

IV. Methodology

- The first most important task is to select the source document form which data is to be drawn. For this purpose, *Web of Science (WoS),* previously known as Web of Knowledge) has been consulted. Web of Science is an online subscription-based scientific citation indexing service maintained by Thomson Reuters that provides a comprehensive citation search. Whether looking at data, books, journals, proceedings or patents, Web of Science provides a single destination to access the most reliable, integrated, multidisciplinary research.
- The main objective of the study is to find out current information marked by web of science in the field of "KM" during the period of 2007-2014.
- Next step was to analyze the data that was collected from the source document. The total number of records collected from the Web of Science was exported on MS-Excel-2007 and the whole data was arranged and rearranged in order to achieve the following objective.

a) Ranking of journals

The main objective of the study is to identify the core periodicals (journals) congaing the research literature on "KM". It is necessary to know the most productive periodicals on the subject. To conduct the study, the articles published in different periodicals were grouped together and arranged according to the decreasing number of records.

b) Ranking of author

This study has been conducted to know the eminent personalities in the field of "KM". The present study analyzed the authors on the basis of their frequency of contributions i.e. how many contributions have been made by the different author. Ranking of authors is done to identify the most productive contributions in the subject.

c) Year wise distribution

In this analysis, year of origin of items were studied to know how many items belong to a particular time period on the basis of their frequency belonging to that particular year. The data was analyzed and tabulated to find the growth of literature on KM.

d) Country wise distribution

This is done to determine the geographical scattering of items on KM productivity of different countries in the subject under the study, which is given in Web of Science. The entries were grouped on the basis of their place of origin. They were then counted and ranked in a table.

e) Subject-wise distribution

This analysis has been done to know the scattering of literature on "KM" in various subject fields. This analysis shows the interdisciplinary character of the subject field. The analysis has been done on the basis of subject field of periodicals publishing on KM literature. The information about the subject fields were obtained from Web of Science database.

f) Form wise distribution

There are number of forms of documents in which literature on 'KM' is published. The aim of analysis is to know the major forms of documents used for producing new information in the subject under study. Data has been tabulated to find out the most used forms of documents.

g) language wise distribution

It is great significance to know the language in which the literature in a area of specialization is published. For the purpose of language-wise analysis,

the entries were grouped according to their language of the documents. After this study they were counted and then prepared a ranked list of languages.

V. Data Analysis

For this study, the total numbers of 4371 items are collected from the source document 'Web of Science' from the year 2007-2014 on the topic "Knowledge Management". The data, so collected was analyzed as under:

a) Year-wise distribution

For this study, the total numbers of 4371 items are collected from the source document "Web of Science", from the year 2007-2014 listed in Table 4.1.

Table No. 1 : Year-wise distribution of Document

S.NO.	Year	No. of Documents	Percentage of documents
1	2007	411	9.403
2	2008	490	11.210
3	2009	573	13.109
4	2010	560	12.812
5	2011	609	13.933
6	2012	654	14.962
7	2013	562	12.857
8	2014	512	11.714
	Total	4371	

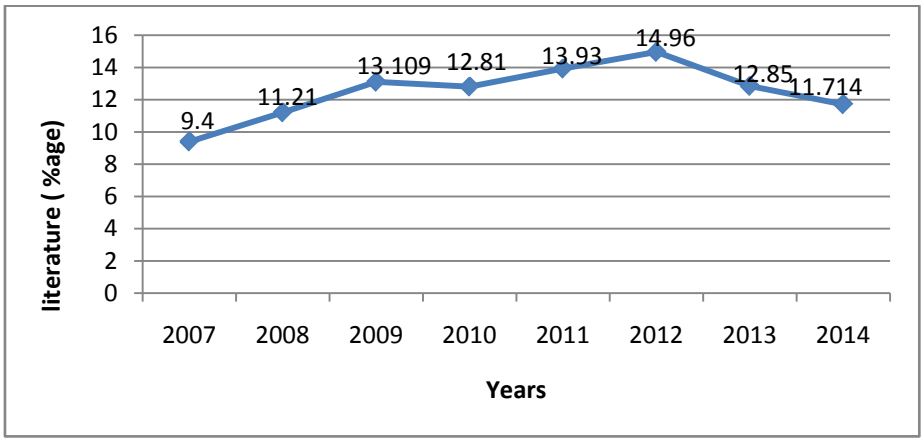

Fig. 1 : Year-wise distribution of documents

The figure No.1 shows that 2007 and 2008 are the less productive years in the subject "Knowledge Management". However, 2012 evolves out to be the most productive year in the publication of literature on Knowledge Management followed by 2009, 2010, 2011 and 2014 with 573, 560, 609, 512 documents respectively.

b) Subject-wise distribution

Usually, most of the materials on a given subject are publish in the journals belonging to the same subject. However a significant amount of literature is published in the journals of other related or marginal subjects. These analyses had been done base of keywords of the published literature, abstract of documents (articles, reviews etc.). The analyses is given in the below table No. 2

Table No. 2 : Subject wise distribution

S.No.	Rank	Subject Area	Freq.	Req.
1	1	Management	1471	33.646
2	2	Information Science Library Science	1123	25.686
3	3	Computer Science Information Systems	629	14.787
4	4	Computer Science Artificial Intelligence	447	10.224
5	5	Operations Research Management Science	447	10.224
6	5	Business	421	9.629
7	6	Computer Science Interdisciplinary Applications	263	6.016
8	7	Engineering Industrial	248	5.672
9	8	Engineering Electrical Electronic	239	5.467
10	9	Computer Science Software Engineering	187	4.277
11	10	Engineering Manufacturing	173	3.957
12	11	Engineering Multidisciplinary	169	3.866
13	12	Engineering Civil	113	2.585
14	13	Computer Science Theory Methods	110	2.516
15	14	Economics	103	2.356
16	15	Education Educational Research	91	2.081
17	16	Computer Science Cybernetics	79	1.807
18	17	Medical Informatics	60	1.372
19	18	Environmental Sciences	57	1.304
20	18	Public Environmental Occupational Health	57	1.304
21	19	Health Care Sciences Services	54	1.235
22	20	Social Sciences Interdisciplinary	53	1.212
23	21	Planning Development	51	1.167
24	22	Telecommunications	49	1.121
25	23	Ergonomics	48	1.098
		Total	4484	

Table No.-2 gives a subject wise break up in the field of 'Knowledge Management'. The most dominant subject area items were found to be 'Management' in which 1471 items constitutes 33.64 %. The second and third rank goes to 'Information Science Library Science' with 1123 items i.e., 25.68 %, 'Computer Science Information Systems 'with 629 items i.e., 14.78 % respectively.

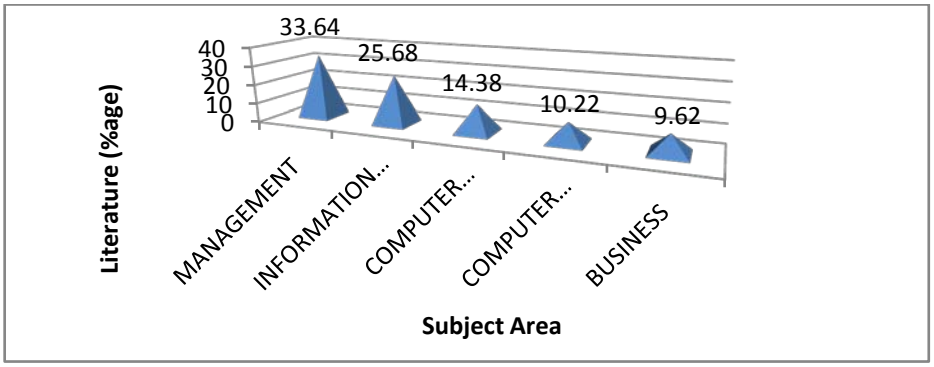

Fig. 2 : Subject wise distribution

c) Ranking of Authors

The characteristics of any subject literature include not only the basic publishing patterns but also the contribution by the authors. There are certain authors in every subject who account for several papers in their field. However, some of them are well known in a given field. It is therefore important to know the eminent authors in the field of Knowledge Management. This information is useful equally for the librarians as well as the researchers.

The prime objective of the study is to find out the authors whose contribution is significant in the field of 'Knowledge Management'. For this purpose, a ranking list of 45 productive authors have been prepared and presented in the table no. 3 in order of decreasing number of papers published in the selected field of 'Knowledge Management'.

Table No. 3 : Top Forty Five Authors

S.No.	Rank	Name Of Authors	Frequency	Cum. Fre.
1	1	Cheung Cf	14	14
2	1	Chen Ym	14	28
3	1	Bontis N	14	42
4	2	Serenko A	13	55
5	2	Chua Ayk	13	68
6	3	Yang J	12	80
7	3	Lee S	12	92
8	4	Zhen L	11	103
9	4	Wang Wm	11	114
10	4	Lin Bs	11	125
11	4	Jafari M	11	136
12	4	De Pablos Po	11	147
13	4	Chen Yj	11	158
14	5	Szczerbicki E	10	168
15	5	Lin Ch	10	178
16	5	Jung Jj	10	188
17	5	Jiang Zh	10	198
18	5	Colomo-Palacios R	10	208
19	6	Li St	9	217
20	6	Lee Wb	9	226
21	6	Xu Ld	8	234
22	7	Rezgui Y	8	242
23	7	Palacios-Marques D	8	250
24	7	Ooi Kb	8	258
25	7	Liu Y	8	266
26	7	Lin Tc	8	274
27	7	Li M	8	282
28	7	Gottschalk P	8	290
29	7	Cegarra-Navarro Jg	8	298
30	8	Wu Ch	7	305
31	8	Wang Tc	7	312
32	8	Tseng Sm	7	319
33	8	Swanson Lw	7	326
8	8	Schiuma G	7	333
35	8	Rowley J	7	340
36	8	Rodriguez-Ponce E	7	347
37	8	Middleton B	7	354
38	8	Lin Hf	7	361
39	8	Lee Cs	7	368
40	8	Kuo Th	7	375
41	8	Huang Cc	7	382
42	8	Garcia-Morales Vj	7	389
43	8	Davison Rm	7	396

44	8	Chu Hc	7	403
45	8	Bernard A	7	410
46	9	37 Authors Have Six Contribution Each (37x6=222)	222	632
47	10	55 Authors Have Five Contribution Each (55x5=275)	275	907
48	11	138 Authors Have Four Contribution Each (138X4=552)	552	1459
49	12	292 Authors Have Three Contribution Each (292X3=876)	876	2335
50	13	1038 Authors Have Two Contribution Each (1038X2=2076)	2076	4411
51	14	7657 Authors Have One Contribution Each (7657X1=7657)	7657	12068
		Total	12068	

Table No. 3 gives the ranking list of significant authors in order of their frequency of occurrence.

Although this study is not sufficient to know the major contributors exactly, yet the present ranking list may be of considerable help to know the name of significant authors in 'Knowledge Management' during 2007-2014. The name of the first three productive authors are:

i. Cheung, Cf 14
ii. Serenko, A 13
iii. Yang, J 12

Prof. Benny C.F. Cheung is a Professor at the Department of Industrial and Systems Engineering (ISE) of The Hong Kong Polytechnic University (PolyU). Prof. Cheung has authored and co-authored two Research Monographs, three Edited Books, five Book Chapters and more than 200 research papers including over 110 Science Citation Indexed (SCI)/Social Science Citation Indexed (SSCI) refereed journal papers.

Dr. Serenko is an Associate Professor of Management Information Systems in the Faculty of Business Administration at Lakehead University, Canada. His research interests pertain to scientometrics, knowledge management, and technology addictino. Alexander has published over 60 articles in refereed journals, including MIS Quarterly, Information & Management, Communications of the ACM, Journal of Informetrics, and Journal of Knowledge Management. He has also won awards at several Canadian, American and International conferences.

Dr. Jian Yang is a full professor at Department of Computing, Macquarie University, Sydney, Australia. Dr. Yang has published papers in the international journals and conferences such as IEEE transactions, Information Systems, Data & Knowledge Engineering, CACM, CIKM, etc. She has served as program committee member in various international conferences. She is also a regular reviewer for journals such as IEEE Transactions on Knowledge & Data Engineering, Data & Knowledge Engineering, VLDB Journal, IEEE Internet Computing, etc.

Table also depicts that Zhen, L has mad 11 contributions, Szczerbickl, E and Li, St published 10 and 9 articles on Knowledge Management respectively.

Table No. 4 : Categories of Authors

Categories	Freq. of Items	Percentage Freq.	Cum. Freq.
Single author	7657	82.66	82.66
Double author	1038	11.20	93.86
Triple author	292	3.15	97.01
More than three author	276	2.97	99.98
Total	9263	99.98	

From the analysis it is clear that 7657 (82.66%) items are written by single author, and 1038 (11.20%), 292 (3.15%) written by double and triple author respectively. The analysis shown in the table No. 4 shows the present trends in which joint efforts are involved to complete research work.

d) Ranking of journals

Now a days, journal have got key position, as an important source of current information, they play a significant role in scientific communication. Articles of the journals provide the most of required information to information sources. It may be found that certain core journals contribute most of the literature on particular topic. This information of core journals in various Subject will go a long way in preparing the subscription list of journals by the librarian and information scientists. The present study therefore is meant to identify the most important journals, contributing the most of the literature of research value in the field of "Knowledge Management".

In the collected data all the 3930 references were found to be in 951 journals, which have been ranked up to 39 positions on the basis of their decreasing frequency.

In this study the first rank was occupied by the journals titled "Journal of Knowledge Management" with the frequency of 278, which accounts for 7.07 of the total references. Next three position occupied by journals like "Knowledge Management Research Practice (4.78%)","Expert Systems With Applications (3.56 %)" and "Decision Support Systems (3.56 %)" respectively as shown in the table 4.6.

Table No. 5 : Ranking of journals

S. No.	Rank	Name Of Journal	No. of Article	Percentage
1	1	Journal Of Knowledge Management	278	7.072
2	2	Knowledge Management Research Practice	184	4.781
3	3	Expert Systems With Applications	140	3.561
4	4	Decision Support Systems	64	1.628
5	5	International Journal Of Technology Management	59	1.501
6	6	International Journal Of Information Management	56	1.425
7	7	Management Decision	278	1.043
8	7	Industrial Management Data Systems	184	1.043
9	7	African Journal Of Business Management	140	1.043
10	8	Knowledge Based Systems	39	0.992
11	9	International Journal Of Production Research	36	0.916
12	10	Journal Of Universal Computer Science	34	0.865
13	11	Journal Of The American Society For Information Science And Technology	33	0.839
14	12	Information Management	30	0.763
15	13	Journal Of Business Research	28	0.712
16	14	Computers In Human Behavior	27	0.687
17	15	Kybernetes	25	0.636
18	15	Computers In Industry	25	0.636
19	16	Journal Of Information Science	24	0.611
20	17	Online Information Review	23	0.585
21	17	Journal Of Computer Information Systems	23	0.585
22	17	International Journal Of Project Management	23	0.585
23	18	Systems Research And Behavioral Science	22	0.56
24	19	Total Quality Management Business Excellence	21	0.534
25	20	Behaviour Information Technology	20	0.509
26	20	Aslib Proceedings	20	0.509
27	21	Industrial Marketing Management	19	0.483
28	22	International Journal Of Software Engineering And Knowledge Engineering	18	0.458
29	22	Information Systems Frontiers	18	0.458
30	22	Information Sciences	18	0.458
31	22	Informacao Sociedade Estudos	18	0.458
32	22	Automation In Construction	18	0.458
33	23	Technovation	17	0.432
34	23	International Journal Of Human Resource Management	17	0.432
35	23	Information Technology Management	17	0.432
36	24	Service Industries Journal	16	0.407
37	24	Perspectivas Em Ciencia Da Informacao	16	0.407
38	24	Life Science Journal Acta Zhengzhou University Overseas Edition	16	0.407
39	24	Journal Of Management Information Systems	16	0.407
40	24	International Journal Of Production Economics	16	0.407

41	24	International Journal Of Manpower	16	0.407
42	24	International Journal Of Advanced Manufacturing Technology	16	0.407
43	25	Profesional De La Informacion	15	0.382
44	25	Organization Science	15	0.382
45	25	Management Learning	15	0.382
46	25	Journal Of Organizational Change Management	15	0.382
47	25	Journal Of Intelligent Manufacturing	15	0.382
48	25	Ieee Transactions On Knowledge And Data Engineering	15	0.382
49	26	Mis Quarterly	14	0.356
50	26	Inzinerine Ekonomika Engineering Economics	14	0.356
51	26	International Journal Of Computer Integrated Manufacturing	14	0.356
52	26	Information Systems Journal	14	0.356
53	26	Information And Software Technology	14	0.356
54	26	Ieee Transactions On Engineering Management	14	0.356
55	26	Computers Education	14	0.356
56	27	Technological Forecasting And Social Change	13	0.331
57	27	Research In Engineering Design	13	0.331
58	27	Project Management Journal	13	0.331
59	27	Journal Of The Association For Information Systems	13	0.331
60	27	Journal Of Construction Engineering And Management Asce	13	0.331
61	28	Research Policy	12	0.305
62	28	Journal Of Documentation	12	0.305
63	28	Journal Of Biomedical Informatics	12	0.305
64	28	International Journal Of Operations Production Management	12	0.305
65	28	Information Systems Research	12	0.305
66	28	Information Systems Management	12	0.305
67	28	European Management Journal	12	0.305
68	28	European Journal Of International Management	12	0.305
69	28	Electronic Library	12	0.305
70	28	Cybernetics And Systems	12	0.305
71	29	Journal Of Strategic Information Systems	11	0.28
72	29	Journal Of Management In Engineering	11	0.28
73	30	Scientometrics	10	0.254
74	30	Metalurgia International	10	0.254
75	30	Journal Of Organizational Computing And Electronic Commerce	10	0.254
76	30	Journal Of Engineering And Technology Management	10	0.254
77	30	Interciencia	10	0.254
78	30	Information Research An International Electronic Journal	10	0.254
79	30	Information Processing Management	10	0.254
80	30	European Journal Of Information Systems	10	0.254
81	30	Engineering Applications Of Artificial Intelligence	10	0.254
82	30	Emj Engineering Management Journal	10	0.254
83	30	Computer Aided Design	10	0.254

84	30	Chinese Management Studies	10	0.254
85	30	Advanced Engineering Informatics	10	0.254
86	31	Transinformacao	9	0.229
87	31	Technology Analysis Strategic Management	9	0.229
88	31	Revista De Ciencias Sociales	9	0.229
89	31	Organization Studies	9	0.229
90	31	Knowledge And Information Systems	9	0.229
91	31	Journal Of Systems And Software	9	0.229
92	31	Journal Of Information Technology	9	0.229
93	31	Journal Of Business Industrial Marketing	9	0.229
94	31	Internet Research	9	0.229
95	31	International Journal Of Information Technology Decision Making	9	0.229
96	31	International Journal Of Human Computer Studies	9	0.229
97	31	Innovation Management Policy Practice	9	0.229
98	31	E M Ekonomie A Management	9	0.229
99	31	Computer Supported Cooperative Work The Journal Of Collaborative Computing	9	0.229
100	31	Ai Edam Artificial Intelligence For Engineering Design Analysis And Manufacturing	9	0.229
101	31	Actual Problems Of Economics	9	0.229
102	32	Supply Chain Management An International Journal	8	0.204
103	32	R D Management	8	0.204
104	32	Program Electronic Library And Information Systems	8	0.204
105	32	Production Planning Control	8	0.204
106	32	Organization	8	0.204
107	32	Journal Of The Operational Research Society	8	0.204
108	32	Journal Of Business Ethics	8	0.204
109	32	Educational Technology Society	8	0.204
110	32	Concurrent Engineering Research And Applications	8	0.204
111	32	British Journal Of Management	8	0.204
112	32	Bmc Medical Informatics And Decision Making	8	0.204
113	32	Baltic Journal Of Management	8	0.204
		Total	**3930**	**99.98**

Table No. 6 : Showing Range of Frequency

S.No.	Freq. Range	No. of Journals	No. of Journals (%)	No. of Items	No. of Items (%)	Cumulative (%)
1	278-18	32	3.36	1466	37.30	37.30
2	17-16	10	1.05	163	4.14	41.44
3	15-6	109	11.46	1009	25.67	67.11
4	5-3	127	13.35	474	12.06	79.17
5	2-1	673	70.76	818	20.81	99.98
	Total	**951**	**99.98**	**3930**	**99.98**	

Table No. 5 and 6 show that 1466 items on 'Knowledge Management' appeared in 32 periodicals/journals as 37.30% of total appeared items constituting in 3.36% journals. They may be regarded as core periodicals in the field of 'Knowledge Management'.

The journals having their frequency of occurrence in the range of 278-18 are 32(3.36%) and

the total number of items is 1466(37.30%). The journals having frequency range of 17-16 are 10(1.05%).

The present ranking list may be useful for the librarian in talking policy decisions regarding subscription list of periodicals on the subject 'Knowledge Management'. It will be equally important for the document lists in preparing an exhaustive documentation list. The study may be useful for the information professionals, as they would know the core journals carrying the highest percentage of items.

e) Country Wise Distribution

Certain countries give more research in particular subjects than others. This is very much useful not only for the information manager in finalizing the subscription list of periodicals but also for the research scholars as they tend to know the countries that are leaders in their respective field of research. Table No. 7 shows the list of 25 countries which are involved in producing the research materials on "Knowledge Management" during 2007-2014.

Table No. 7 : Country Wise Distribution

S.No.	Country/Territories	Records	Percentage
1	USA	960	21.963 %
2	England	459	10.501 %
3	Taiwan	418	9.563 %
4	Spain	363	8.305 %
5	Peoples R China	335	7.664 %
6	Canada	242	5.536 %
7	Australia	223	5.102 %
8	Germany	188	4.701 %
9	Italy	162	3.706 %
10	France	153	3.500 %
11	Netherlands	129	2.951 %
12	South Korea	127	2.906 %
13	Brazil	110	2.517 %
14	Finland	82	1.876 %
15	Iran	76	1.739 %
16	Switzerland	76	1.739 %
17	Singapore	74	1.693 %
18	India	69	1.579 %
19	Malaysia	68	1.556 %
20	New Zealand	68	1.556 %
21	Sweden	67	1.533 %
22	Poland	63	1.441 %
23	Japan	62	1.418 %
24	Austria	60	1.373 %
25	Greece	53	1.213 %

Table No. 7 contains a list of 25 countries producing literature on 'Knowledge Management'. These countries have been ranked based on frequency of occurrence of items. It was observed that 21.963% of total number from USA only. UK and Germany produced 4% and 5% journals respectively. It was found that literary output of USA is more than other countries. In the ranking list USA accounted for 960 of total items i.e. 21.963%.

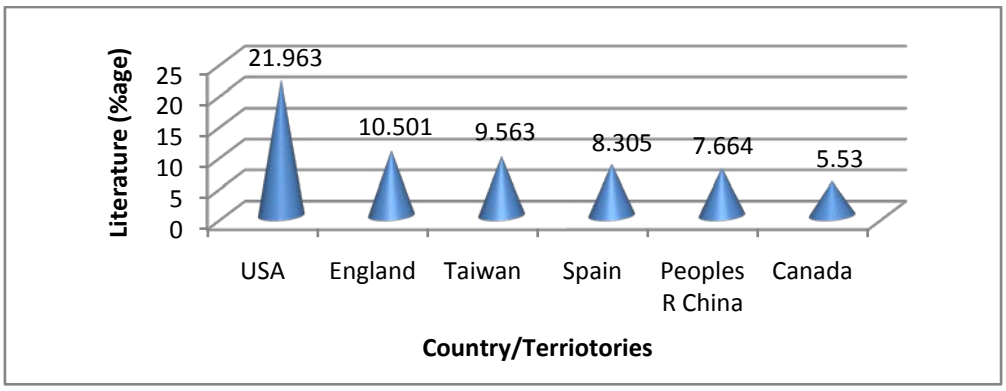

Fig. 3 : Representing Country-wise distribution of items

The figure no. 3 shows that literary output of USA is more than other countries in the ranking list; USA accounted for 960 items of total 4371 items and thus occupies the first rank.

f) Form wise distribution

The literature on the topic "Knowledge Management" has been published in different forms such as articles, reviews, proceedings papers, editorials, book reviews, meeting abstracts, corrections, book chapters, letters, news items, etc. One of the objectives of our study was to know the different forms in which the literature on the subject 'Knowledge Management' is being published. This helps the information scientists or librarians in knowing the most important forms of literature on the topic "Knowledge Management".

Table No. 8 : Form Wise Distribution of documents

S. No.	Document Types	Records	Percentage	Percentage of Cum. Freq.
1	Articles	3930	89.91	89.91
2	Reviews	208	4.65	94.56
3	Editorial Materials	130	2.97	97.53
4	Book Reviews	78	1.78	99.31
5	Meeting Abstracts	16	0.36	99.67
6	Corrections	4	0.09	99.76
7	Book Chapters	2	0.04	99.80
8	Letters	2	0.04	99.84
9	News Items	1	0.04	99.88
	Total	**4371**	**99.88**	

Table 4.7 shows that the literature on Knowledge Management is being published in different forms. Analysis of collected data reveals that Article is the most dominant form of publication in the field of Knowledge Management occupying first position and corresponding to 89.91 percent of the total items. This is followed by others forms of publications, such as reviews (4.65%), Editorial Material (2.97%) and Book reviews (1.78%) occupying second, third and fourth positions respectively. It is important to mention here that articles published in journals are most vital form of media of scholarly communication among researchers belonging to the subject "Knowledge Management". Forms-wise distribution of publications is also shown in Figure No.4.

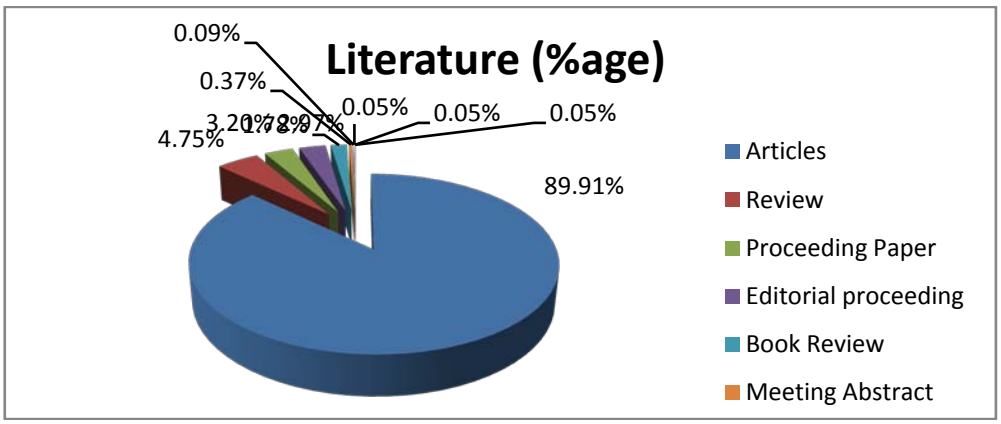

Fig. 4 : Form wise distribution of items

g) Language wise distribution

Literature on a particular subject may be published in different languages. For researchers and information scientists, it is always important to know the language(s) in which the material of their area or specialization is published. This study provides information about the most dominant language(s) in which the literature on the subject "Knowledge Management" is being published.

Table No. 9 : Language wise distribution

S.No.	Languages	Records	Percentage
1	English	4145	94.830 %
2	Spanish	106	2.425 %
3	Portuguese	57	1.304 %

4	German	26	0.595 %
5	French	9	0.206 %
6	Russian	6	0.137 %
7	Czech	5	0.114 %
8	Turkish	5	0.114 %
9	Croatian	2	0.046 %
10	Hungarian	2	0.046 %
11	Polish	2	0.046 %
12	Slovak	2	0.046 %
	Total	**4371**	

Table 4.2 shows the distribution of these items according to the language of their publication. It may be observed from Table 5.4 that a total of 4371 items were published in 12 different languages. Among these 12 languages, 'English' was found as the most dominant language corresponding to 94.83 percent of total publications. English is followed by Spanish (2.4%), Portuguese (1.3%) and German (0.595%) languages. It is interested to note that 99.15 percent items have been published in these four languages and reaming 0.85 percent of items were published in eight languages.

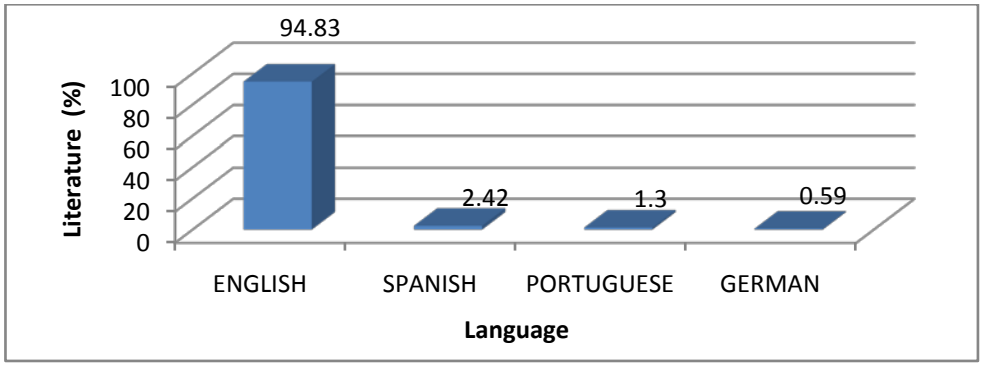

Fig. 5 : Representing Language wise distribution of items

VI. Findings and Conclusion

The prime objective of the bibliometric study i.e., quantitative or numerical or statistical analysis of recorded communication, is to know the subject, forms, languages, countries, years, leading core journals etc. in the subject "Knowledge Management". After the collection of data form 'Web of Sciences', it was analyzed according to bibliometric technique and results were drawn in the form of table, graphs and pie charts.

On the basis of this study major findings may be concluded as follows:

- From the study dealing with year wise distribution of items, it is found that largest amount of document were produced in the year 2012 with 654 items i.e. 14.96% on the subject "Knowledge Management". The other most productive years are 2011 and 2009 accounts for 609 items i.e. 13.93% and 573 items i.e. 13.10%, respectively.
- From the form wise distribution, it is found that Article are most popular form, with 3930 items i.e., 89.91 %, followed by Review with 208 items, i.e., 4.75%, Proceeding Paper with 140 items i.e., 3.20%. This analysis may be useful for the librarian to decide about the various forms of documents, which are to be procured in the library to serve the requirements of researchers on the subject.
- Author wise distribution shows that 7657(82.66%) items contributed by single authors and 1606(17.3%) items contributed by more than authors (multiple authors). The most productive authors in the field are:

  i. Cheung CF 14
  ii. Serenko A 13
  iii. Yang J 12
- From the study dealing with ranking of journals, it is found that the journal title 'Journal of Knowledge Management', published from Great Britain, is most productive, reposting 278 items i.e. 7.072% of the total references. This is followed by 'Knowledge Management Research Practice' published from the UK with 184 items i.e. 4.68% of the total and 'Expert System with Applications' published from the UK with 140 items i.e. 3.56% of the total.
- From Geographical study, it was found that USA is the biggest producer with 960 items i.e., 21.96%, of the total. This is followed by England and Taiwan with 459(10.50%), 418(9.56%) items respectively. India has 69 (1.57 %) items.

- Subject wise distribution shows that the most dominant subject area items were found to be 'Management' in which 1471 items constitutes 33.64%. The second and third rank goes to 'Information Science Library Science' with 1123 items i.e., 25.68%, 'Computer Science Information Systems 'with 629 items i.e., 14.38% respectively.
- Language wise distribution analysis shows that 94.83% literature in this field is published in English language 2.42% in Spanish language, .595% in Portuguese and so on. English is the most dominant language in this field. This analysis suggested that researchers should know at least one foreign language other than English.
- At last Bradford's and Lotka's laws were applied to the collected data to testify the validity of laws in the present context. However, Lotka's law could not be verified, as it seem to out dated for the literature on "Knowledge Management" is concerned. But Bradford's law is thus partially proved in this study.

Finally it may be concluded that Bibliometric study is very well established technique of identification and describing some of the characteristics of literature. This study helps the librarian or information scientists in deriving certain conclusions, which help them in taking certain fruitful steps in the smooth running of library and also helps in satisfying the need of the users to the great extent. Now a day's Bibliometrics studies are becoming very popular, because of explosion of knowledge.

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