

# JOURNAL OF INFORMATION & KNOWLEDGE MANAGEMENT



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**JOURNAL OF INFORMATION AND KNOWLEDGE MANAGEMENT**  
**Volume 3, Number 2, December 2013**  
**ISSN 2231-8836 (E-ISSN 2289-5337)**

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- to assist academicians from local and foreign universities, business and industrial sectors, government departments and academic institutions, on publishing research results and studies in the areas of information management, records and archives management, library management and knowledge management through scholarly publications.

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**Volume 3, Number 2, December 2013**

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Suggested Cataloguing-in-Publication Data

Journal of Information and Knowledge Management

Vol.3, no. 2, (2013) -

Shah Alam : Faculty of Information Management

ISSN 2231-8836

1. Library Science – Periodicals 2. Library Science Malaysia – Periodicals I. Z671

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# DEVELOPMENT OF KNOWLEDGE IN RECORDS MANAGEMENT BY USING BIBLIOMETRIC ANALYSIS ON RECORDS MANAGEMENT JOURNAL

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**Abstract:** *A bibliometric analysis of 235 articles published in Records Management Journal's 15 years of publication, ranging from 1994-2009 was carried out. The range of articles published per volume is between 9 and 17. Most papers (80%) are single-authored or 187 authors out of a total of 235 authors. Elizabeth Shepherd, the most prolific author contributed 7 papers. 174 (59.2%) of the authors are geographically affiliated to United Kingdom. The most productive institution/organization is University of Northumbria, United Kingdom with 24 out of 187 authors. Subject analysis indicates that "Systems Design and Implementation" outnumbered other subjects with 15.8% (37) out of total of 235 articles. Most of the cited publications (97.7%) are in English Language. The majority of articles are research papers contributing 78 articles (33.2%).*

**Keywords:** *Records Management, Bibliometric, Knowledge.*



## INTRODUCTION

Records Management as an important field of science has gone through tremendous evolution. Records are strategic resources for organizations and are considered vital to their operations. Pennix and Coulson, (1994) define records as any information captured in reproducible form that is required for conducting business. Records management has attracted many researchers to study the discipline and to produce the findings for the benefit of society. This study aims to document the development of knowledge and subject growth of records management discipline through the use of bibliometric analysis of a journal in the discipline and to this effect, *Records Management Journal* was chosen.

*Records Management Journal* was originally published in 1992 but no records or citation was found. It was re-launched in June 1994 and this date was taken in this research as its official first publication. The new version was published twice a year in June dan December by ASLIB, The Association for Information Management in association with The Society of Achives, based in London.

The editorial board of the journal consists of professionals from various backgrounds. Among them are from University of Northumbria, British Medical Association, HW Wilson Co, Loughborough University, Pfizer Central Research, University College, London, and independent consultant. They aimed at broadening the geographical scope of the journal, as they are aware that each country cultivates its own unique approach in managing records. Lessons can be learned, especially contributions from those working and studying in other countries, most notably Western Europe, North America and Japan.

The journal has moved from two issues to three issues a year, beginning 1996. These three issues appeared in April, August and December. The third issue in December covers international issues, the first of which provides an update on records management past, present and future. In 2002, *Records Management Journal* was published under Emerald and become one of the 21 titles published in the field of Library and Information. The editors believed that these changes could bring great opportunities for the future development of the journal and therefore delivering great benefits to its readers. In a statement in the editorial policy, one of the unique attributes of the *Records Management Journal* is that, "it is the only international journal devoted to records management, which is not exclusive to a professional society or association."



*Records Management Journal* could be a useful source of reference for those studying records management and has now emerged as a topic of academic study and research

The journal also takes an independent approach and does not represent a particular school of thought. It publishes information on all aspects of records keeping and managing records in organizations, regardless of their form and medium, across the continuum, including creation and capture, organisation, dissemination, preservation and disposition. These aspects are well explored from the different perspectives of practitioners and educators across all sectors and internationally, emphasizing the latest research and current best practices, particularly within the context of the electronic environment.

## **OBJECTIVES**

The study was carried out to determine the development of knowledge in the field of records management. Four main objectives of this study are to identify the :-

- size and growth of the literature;
- subject distribution of the literature;
- authorship pattern, collaboration and author productivity;
- contribution of institution/organization.

## **METHODOLOGY**

This research uses bibliometric analysis, which is an unobtrusive method for measuring the growth of published knowledge in the context of scholarly development of a field. It involves gathering authoritative data from the main source of the study – *the Records Management Journal*, published by Emerald Group Publishing Limited, England. A total of 235 articles were collected from 46 volumes of the journal. Some of the data were kept in the computer, using Microsoft Excel for reference. Data were gathered from two main sources: first, the Arkib Negara Malaysia Departmental Library, located at Jalan Duta, Kuala Lumpur and second, through on-line database of Perpustakaan Tun Abdul Razak (PTAR), University Teknologi MARA (UiTM). Past literature has revealed that no bibliometric study of *Records Management Journal* has been done in Malaysia, especially for the first fifteen years of its publication.

## **SCOPE AND LIMITATION**

Volume 4 Number 1 published in 1994 was the first issue that was subscribed by the National Archives of Malaysia Departmental Library. So, it is decided that Volume 4 Number 1 will be considered as the first issue for the study. The publication period studied is 15 years from the first issue in 1994 until 2009. 15 years period of the journal is deemed reasonable long period to identify the development of ideas and topics relevant to the field as expressed in the journal.

## **LITERATURE REVIEW**

The word bibliometric first appeared in the literature in the field of library and information science in 1969, when Alan Pritchard introduced the term to replace "statistical bibliography" and defined it as, "*the application of mathematics and statistical methods to books and other media of communication to shed light on the process of written communications.*" The use of bibliometric analysis to answer research questions has been practiced by researchers. To identify the intellectual development of the subject organizational change management (OCM), Giraud and Autissier (2012) used knowledge-stock analysis and bibliometric study to analyse the Journal of Organizational Change Management. Giraud and Autissier had found out that research articles tend to dominate the journal towards the end of the studied period and the main topics discussed were change process. Giraud and Autissier have demonstrated that by using bibliometric analysis, the development of knowledge in the field of OCM can be analysed.

Ming-Yueh and Zhu-Yee (2011) used bibliometric analysis to identify the subject relationship with other disciplines. *The Journal of Documentation* (JOD) which was analysed has shown that the three main classes of cited journals are, library science, science, and social sciences while the three subclasses of non-LIS journals that were highly cited in JOD papers are Science, "Mathematics, Computer science," and "Industries, Land use and Labor".

Dhiman (2000) has conducted a ten year bibliometric study on *Ethnobotany Journal* which is a multidisciplinary journal. The study aimed at determining the year-wise distribution of papers; distribution of contribution among types of organizations; country-wise distribution of papers; the nature of authorship pattern; the frequency and mean of number of references cited by researchers and average length of papers. The scope of the study is based on research, review articles and short communications published during 1989 – 1998. All the 10 volumes (175 articles) published was taken into consideration for the study where all the collected data were recorded, compiled, tabulated and analysed for making observations. The finding of the study has shown

that the highest number of articles were published in 1997, with 29 or 16.6%, followed, by 26 in 1998. The lowest number of article published was in 1992. Research Institutions/Colleges were stated higher in term of distribution of papers among other organizations. Through 1989, 96 (47.5%) papers contributed by Institutions/Colleges while the outcomes contribution from University recorded as 61 (30.2%).

Schaltegger, Gibassier and Zhedov (2013) used bibliometric study to investigate whether the environmental management accounting (EMA) can be called a discipline. By doing bibliometric analysis, they have found that EMA is developing as a young discipline but the low number of highly cited publications of few authors indicated that EMA has yet to become a mainstream field of research.

Based on the literature available, bibliometric analysis can be used to help researchers in identifying the development of a subject and this study is being done to identify the knowledge development in the field of records management through bibliometric study on *Records Management Journal*. The trend in using a specific journal related to the body of knowledge analysed can be seen through past researches available.

## **FINDINGS**

### *The Size and Growth of the Literature*

Data were collected from 235 articles (46 issues) of the 19 volumes, starting from Volume 4 of Records Management Journal published during 1994 – 2009. In the year 1994 and 1995, they are only two issues published for each year while starting from the year 1995; three issues were introduced until now. As mentioned earlier, Volume 1 – 3 of the journal were not available, as the publisher has gone out of the business. Due to certain consideration, some part of the articles were also left out, including editorial; professional's resources publication and book review. Starting from the year 1994, 10 articles were published while 9 articles were published in 1995. In 1996, 17 articles were published and followed by 16 articles in the year 1997. In 1998, 16 articles were published which has the same number of publication in 1997. In 1999, the number of articles published is 16 and once more this number of publication recorded the same in 1997 and 1998. In 2000, there is a slight decrease of articles published and recorded only 12 articles published that year. However, the number of articles was increased in the year 2001 and 2002, where 15 articles were published. In 2003, the number of articles published increased once more to 17 articles. By the year 2004, the number of articles decreased again with 15 articles published. In 2005, the number decreased with 14 articles published while in 2006 the articles increased again with 16 articles. In 2007, the number of articles decreased again to 15 articles while in the year 2008 and 2009

recorded the same with 16 articles published. The distribution of articles by volume shows that the number of articles was highest in 2003, with 17 articles. The range of articles published per year during the period of under study is between 9 and 17. This pattern also shows that overall numbers of articles published from the year 1994 – 2009 were constantly and without bigger gap compared to each year of the journal under study. Table 1 shows the size and growth of the literature published from 1994 – 2009.

Table 1: *The Size and Growth of the Literature*

<b>Year</b>	<b>Volume</b>	<b>Number of Issues</b>	<b>Number of articles</b>	<b>Cumulative Total</b>	<b>Percent %</b>
1994	4	1st	6	6	2.6
1994	4	2nd	4	10	1.7
1995	5	1st	4	14	1.7
1995	5	2nd	5	19	2.1
1996	6	1st	5	24	2.1
1996	6	2nd	6	30	2.6
1996	6	3rd	6	36	2.6
1997	7	1st	6	42	2.6
1997	7	2nd	6	47	2.1
1997	7	3rd	5	52	2.1
1998	8	1st	5	57	2.1
1998	8	2nd	5	62	2.1
1998	8	3rd	6	68	2.6
1999	9	1st	5	73	2.1
1999	9	2nd	5	78	2.1
1999	9	3rd	6	84	2.6
2000	10	1st	4	88	1.7
2000	10	2nd	4	92	1.7
2000	10	3rd	4	96	1.7
2001	11	1st	5	101	2.1
2001	11	2nd	5	106	2.1
2001	11	3rd	5	111	2.1
2002	12	1st	5	116	2.1
2002	12	2nd	4	120	1.7
2002	12	3rd	6	126	2.6
2003	13	1st	5	131	2.1
2003	13	2nd	6	137	2.6

2003	13	3rd	6	143	2.6
2004	14	1st	5	148	2.1
2004	14	2nd	5	153	2.1
2004	14	3rd	5	158	2.1
2005	15	1st	4	162	1.7
2005	15	2nd	5	167	2.1
2005	15	3rd	5	172	2.1
2006	16	1st	6	178	2.6
2006	16	2nd	5	183	2.1
2006	16	3rd	5	188	2.1
2007	17	1st	4	193	1.7
2007	17	2nd	4	196	1.7
2007	17	3rd	7	203	3
2008	18	1st	6	209	2.6
2008	18	2nd	4	213	1.7
2008	18	3rd	6	219	2.6
2009	19	1st	5	224	2.1
2009	19	2nd	5	229	2.1
2009	19	3rd	6	235	2.6

#### *Types of Articles from 1994 – 2009*

Similar to other scholarly journals, the majority of articles published in *Records Management Journal* can be categorized as general review; case study; research; technical paper; viewpoint; literature review and conceptual paper. The new article styles were changed in 2005 to help the readers and researchers find the most suitable type of information. The back volume in 2004 was changed in accordance with the new typology by the publisher of the journal. These categories are clearly defined and will help readers to locate the papers. The majority of articles are research papers, contributing 78 articles (33.2%). Research papers appear constantly, beginning the year 1998 in every year of publication. These category papers which report on any type of research undertaken by the author(s). The research may involve the construction or testing of a model or framework, action research, testing of data, market research or surveys, empirical, scientific or clinical research. In 1999, and 2001, research papers appeared in 10 articles that made them the highest contributors of articles compared to others. General review papers are the second highest articles published in this journal. These types of papers contributed 72 articles or 30.7% overall. This category covers those papers which provide an overview or historical examination of some concept, technique or phenomena. The papers are likely to be more descriptive or instructional

(‘how to’ papers) than discursive. Third came case study, contributing 32 or 13.6% in this category. Case studies describe actual interventions or experiences within organizations. They may well be subjective and will not generally report on research. A description of a legal case or a hypothetical case study used as a teaching exercise also fits into this category. Fourth is viewpoint which includes any paper where content is dependent on the author’s opinion and interpretation. More journalistic pieces are included here. These are useful if someone required more contexts and others’ thinking on the issue. This is the one and only category where peer review may not have been deemed appropriate. Viewpoint contributed 30 articles or 12.8%. Fifth and six are technical and conceptual paper. Both of these articles contribute 9 or 3.8%. Technical papers describe and evaluate technical products, processes or services. If readers want to see something in use then this category might be very useful while conceptual papers are not based on research but develop and test hypotheses. The papers are likely to be discursive and cover philosophical discussions and comparative studies of others’ work and thinking. Last, but not least is literature review paper which constitutes 5 or 2.1% of the articles. This category is only used if the sole purpose of the paper is to annotate and/or critique the literature in a particular subject area. It may be selective bibliography providing advice on information sources or it may be comprehensive in that the paper’s aim is to cover the main contributors to the development of a topic and explore their different views and approaches. Table 2 shows types of articles published from 1994 – 2009.

Table 2: *Types of Article from 1994 – 2004*

<b>Vol. (No)</b>	<b>Year</b>	<b>General Review</b>	<b>Case Study</b>	<b>Research</b>	<b>Technical Paper</b>	<b>View-point</b>	<b>Literature Review</b>	<b>Conceptual Paper</b>	<b>Total of Articles</b>
4(1)	1994	6	0	0	0	0	0	0	6
4(2)	1994	4	0	0	0	0	0	0	4
5(1)	1995	4	0	0	0	0	0	0	4
5(2)	1995	5	0	0	0	0	0	0	5
6(1)	1996	5	0	0	0	0	0	0	5
6(2)	1996	6	0	0	0	0	0	0	6
6(3)	1996	6	0	0	0	0	0	0	6
7(1)	1997	6	0	0	0	0	0	0	6
7(2)	1997	5	0	0	0	0	0	0	5
7(3)	1997	5	0	0	0	0	0	0	5
8(1)	1998	4	1	0	0	0	0	0	5
8(2)	1998	1	0	3	0	0	0	1	5
8(3)	1998	1	0	4	0	0	0	1	6
9(1)	1999	0	0	4	0	1	0	0	5
9(2)	1999	0	0	4	0	1	0	0	5

9(3)	1999	2	1	2	0	0	1	0	6
10(1)	2000	0	0	3	0	1	0	0	4
10(2)	2000	0	0	3	0	1	0	0	4
10(3)	2000	2	0	2	0	0	0	0	4
11(1)	2001	1	0	3	0	1	0	0	5
11(2)	2001	0	0	4	1	0	0	0	5
11(3)	2001	0	1	3	1	0	0	0	5
12(1)	2002	2	1	0	1	1	0	0	5
12(2)	2002	0	0	2	1	1	0	0	4
12(3)	2002	1	0	4	1	0	0	0	6
13(1)	2003	0	1	2	0	1	1	0	5
13(2)	2003	0	0	4	4	0	0	0	6
13(3)	2003	0	6	0	0	0	0	0	6
14(1)	2004	1	2	2	0	0	0	0	5
14(2)	2004	0	0	1	0	0	1	3	5
14(3)	2004	0	1	0	0	0	0	4	5
15(1)	2005	1	2	0	0	1	1	0	4
15(2)	2005	0	1	0	0	3	0	0	5
15(3)	2005	1	3	0	0	1	0	0	5
16(1)	2006	1	1	0	0	3	1	0	6
16(2)	2006	1	3	0	0	1	0	0	5
16(3)	2006	0	3	1	0	1	0	0	5
17(1)	2007	1	0	1	0	2	0	0	4
17(2)	2007	0	0	2	0	2	0	0	4
17(3)	2007	0	0	6	0	1	0	0	7
18(1)	2008	0	0	6	0	0	0	0	6
18(2)	2008	0	1	2	0	1	0	0	4
18(3)	2008	0	2	3	0	1	0	0	6
19(1)	2009	0	1	2	0	2	0	0	5
19(2)	2009	0	1	2	0	2	0	0	5
19(3)	2009	0	0	5	0	1	0	0	6
<b>Total</b>		72	32	78	9	30	5	9	235
<b>Percentage (%)</b>		30.7	13.6	33.2	3.8	12.8	2.1	3.8	100

### *Subject Distribution of the Literature*

Subject distribution can be categorized into 13 subjects, namely best practice, standard and guidelines; system design and implementation; strategic developments in both public and private sectors; model for records management; effects of government policies on records management; performance measurement, legal and ethical issues; consortia and co-operation; electronic records management, risk management and business continuity; continuing professional development; marketing; and preservation.



These categories were considered relevant because at the moment, there are no standards for categorizing records management subject as opposed to more established field like Library and Information Science Subject. Table 4 reveals the highest subject distribution of the literature is systems design and implementation with 37 articles (15.8%). Second is best practice, standards and guidelines with 36 articles (15.3%). Third are continuing professional development with 32 articles (13.7%). Next is strategic development in both public and private sectors with 28 articles (11.9%). Model for records management and legal and ethical issues shared 21 articles (8.9%). Electronic records management contribute 19 articles (8.1%) while performance measurement and consortia and co-operation shared 12 articles (5.1%). Three subjects constitute the effect of government policies on records management, preservation and risk management and business continuity shared 5 articles (2.1%). Last but not least is marketing with 2 articles (0.9%). Table 3 shows the subject distribution of the literature in Records Management Journal from 1994 – 2009.

Table 3: *Subject Distribution of the Literature*

<b>Rank</b>	<b>Subject</b>	<b>Number of articles</b>	<b>Percent %</b>
1	System design and implementation	37	15.8
2	Best practice, standards and guidelines	36	15.3
3	Continuing professional developments	32	13.7
4	Strategic development in both public & private sectors	28	11.9
5	Models for records management	21	8.9
6	Legal & ethical issues	21	8.9
7	Electronic records management	19	8.1
8	Consortia and co-operation	12	5.1
9	Performance measurement	12	5.1
10	Effect of government policies on records management	5	2.1
11	Risk management and business continuity	5	2.1
12	Preservation	5	2.1
13	Marketing	2	0.9
	<b>Total</b>	<b>235</b>	<b>100</b>

*Authorship Pattern of Articles and Authors Collaboration*

Single authorship constitutes 187 articles or 80% from the total 235 articles. These are followed by two authored articles, with 34 articles (14%), three authors, with 11 articles (4.7%) and four authors, with 3 articles (1.3%). It also indicates international and locally collaboration among authors. The only international collaborated paper is co-authored by 4 individuals: Marjo Rita Valtonen (Finland), Catherine Hare (United Kingdom), Peter Horsman (Netherlands) and Volker Schokenhoff (Germany). There is none international collaboration paper for 3 authors. International collaboration paper by 2 authors are, Diana Edmonds from United Kingdom and Ringo Lo from Hong Kong. Others including Zawiyah Yusof from Malaysia and Robert Chell from United Kingdom, Xiaomi An from China and Michael Cook from United Kingdom and Richard E. Barry from USA and Micheal J. Steemson from New Zealand. Authors from United Kingdom, Australia, Kenya, Sweden, Singapore, South Africa, China, Botswana, Nigeria, Denmark, Germany, Italy and Malaysia are among local collaboration identified. Table 4 shows the authorship pattern of articles appeared in *Records Management Journal* from 1994 – 2009

Table 4: *Authorship Pattern*

<b>Number of Authors</b>	<b>Number of Articles</b>	<b>Percent %</b>
Single Author	187	80
Two Authors	34	14
Three Authors	11	4.7
Four Authors	3	1.3
<b>Total</b>	<b>235</b>	<b>100</b>

### *Author Productivity*

Author productivity is based on the frequencies of their name appeared as authors regardless whether their name came first, second third or fourth. From 294 authors productivity, one author contributes 7 articles (2.4%), 2 authors contribute 6 articles (4.2%), 2 authors contribute 5 articles (3.2%), 5 authors contributes 4 articles (6.5%) and another 5 authors contribute 3 articles (5%), 24 authors contribute 2 articles (16.8%) and lastly 181 authors (61.9%) contributed one single article. The first ranking of the most authors' productivity is Elizabeth Shephed from the University of College, London with 7 articles. Second ranking consist of 2 authors with 6 articles. They are Julie McLeod (University of Northumbria) and Zawiyah M. Yusof. Graham Southwood from Britannia Data Management and Kenneth Tombs, an Independent Consultant came third with 5 articles. It is also interesting to reveal that the most productive authors are from higher learning institution. It is also found that some authors use several different organizations

according to where they are employed, either at the government or private organization if they subsequently set-up their own companies as consultancies. Table 5 shows author productivity in *Records Management Journal* from the year 1994 – 2009.

Table 5: Author Productivity

<b>Author</b>	<b>Organization/Country</b>	<b>Frequency</b>	<b>Percent %</b>
Elizabeth Shepherd	University College London, UK	7	2.4
Julie McLeod	University of Northumbria, UK	6	2.1
Zawiyah Mohd Yusof	University of Aberystwyth, UK and Universiti Kebangsaan Malaysia	6	2.1
Graham Southwood	Britannia Data Management, UK	5	1.6
Kenneth Tombs	Independent Consultant, UK	5	1.6
Barbara Reed	Monash University, Australia	4	1.3
Carl Newton	Independent Consultant, UK	4	1.3
David Ryan	Pfizer Ltd, UK	4	1.3
Justus Murungu Wamukoya	Moi University, Kenya	4	1.3
Robert W Chell	University of Aberystwyth, UK	4	1.3
Catherine E Hare	University of Northumbria	3	1
Henry N. Kemoni	Moi University, Kenya	3	1
Johanna Gunnlaugsdottir	University of Iceland	3	1
Nathan Mnjama	University of Botswana	3	1
Philip Jones	Staffordshire County Council, UK	3	1
Alan Murdoch	Pfizer Ltd., UK	2	0.7
Anne Thurston	University College London, UK	2	0.7
Ceri Hughes	KPMG Financial Advisory, UK	2	0.7
Edward Atkinson	Bank for International Settlements, Basel, Switzerland	2	0.7
Ian Day	British Medical Association, UK	2	0.7
James Whitmann	University of Northumbria, England	2	0.7
Jeff Morelli	JMCL Developments Ltd., Wimbeldon, UK	2	0.7
Lesley A King	University of Northumbria, UK	2	0.7
Margaret Pember	Curtin University of Technology, Australia	2	0.7
Marjo Rita Valtonen	University of Tampere, Finland	2	0.7
Michael Cook	University of Liverpool Centre for Archives Studies, UK	2	0.7
Michael J. Steemson	The Caldeson Consultancy, Wellington, New Zealand	2	0.7
Michael Moss	University of Glasgow, UK	2	0.7
Mike Smith	AstraZeneca Pharmaceuticals	2	0.7

Nigel Craig	Glasgow Caledonian University, Glasgow, UK	2	0.7
Patrick Nglube	University of Natal, South Africa	2	0.7
Peter Benfell	UK Debt Management Office, UK	2	0.7
Piers Cain	International Records Management Trust, UK	2	0.7
Richard E. Barry	Barry Associates, Virginia, USA	2	0.7
Stephen Bailey	Pfizer Ltd., UK	2	0.7
Sue McKemmish	University of Monash, Australia	2	0.7
Sunday O Popoola	University of Ibadan, Nigeria	2	0.7
Victoria West	London Metropolitan Archives, UK	2	0.7
Xiaomi An	Renmin University of Beijing, China	2	0.7
Author appearing only once		182	61.9
	<b>Total</b>	<b>294</b>	<b>100</b>

### *Institution/Organization Contribution*

Institution/organization contribution is based on the highest contributor basically public or private sector. It needs to be stated here that public sector also include those which are from the academic field. They are identified through the frequency of the authors' names that come with the institution/organizations that they represent. It is also found that some of these authors are self-employed consultants without representing any institution or organization. These findings are also related with Table 7, regardless of which institution or organization comes first, second, third or fourth throughout the whole article in the journal. University of Northumbria (United Kingdom) ranked first as the highest contributed institution/organization with 24 articles (8.2%) from the total of 294 articles individually. Second goes to Independent Consultant with 12 articles (4.1%). Third is University College, London with 9 articles (3.1%). University of Aberystwyth and Pfizer Central Research Ltd. shared 8 articles (2.7%) ranked fourth. European Central Bank, Frankfurt, Germany and Moi University of Kenya contributed 7 articles (2.4%) ranked sixth. University of Glasgow ranked eighth with 6 articles (2.0%) while University of Botswana ranked ninth with 5 articles (1.7%). Tenth place shared by three institution/organizations, namely Monash University, Australia, National Archives of Australia and University of Liverpool with 4 articles (1.4%). Institutions/organization contributed 3 articles (1.1%) are KPMG Financial Advisory, Glasgow Caledonian University, International Records Management Trust, London, UK, Nanyang Technological University, Singapore, Staffordshire County Council, University of Ibadan, Nigeria, University of Iceland, University of Monash, Australia, University of Tampere, Finland with two other universities from Malaysia, University Teknologi MARA, (UITM) and University Kebangsaan Malaysia (UKM). Sixteen other institution/organization contributed 2 articles (0.7%) while 124 (42.1%) other

institution/organization contributed with 1 article. Table 6 shows Institution/Organization contribution in Records Management Journal for the past 15 years from 1994 – 2009.

Table 6: *Institution/Organization Contributions*

<b>Rank</b>	<b>Institution/Organization</b>	<b>Frequency</b>	<b>Percent</b>
1	University of Northumbria, England	24	6.2
2	Independent Consultant	12	4.1
3	University College London, England	9	3.1
4	University of Aberystwyth, Wales	8	2.7
4	Pfizer Central Research Ltd. England	8	2.7
6	European Central Bank, Frankfurt, Germany	7	2.4
6	Moi University, Kenya	7	2.4
8	University of Glasgow, UK	6	2.0
9	University of Botswana	5	1.7
10	Monash University, Australia	4	1.4
10	National Archives of Australia	4	1.4
10	University of Liverpool, UK	4	1.4
13	KPMG Financial Advisory	3	1.1
13	Glasgow Caledonian University, Glasgow, UK	3	1.1
13	International Records Management Trust (IRMT)	3	1.1
13	London, UK	3	1.1
13	Universiti Teknologi MARA (UiTM)	3	1.1
13	Nanyang Technological University, Singapore	3	1.1
13	Staffordshire County Council	3	1.1
13	Universiti Kebangsaan Malaysia (UKM)	3	1.1
13	University of Ibadan, Nigeria	3	1.1
13	University of Iceland	3	1.1
13	University of Monash, Australia	3	1.1
13	University of Tempere, Finland	3	1.1
25	Audata Ltd. Ashford, UK	2	0.7
25	Bank for International Settlements, Basel, Switzerland	2	0.7
25	Centre for Research Information, UMIST, Manchester, UK	2	0.7
25	Copenhagen Business School, Frederiksberg, Denmark	2	0.7
25	Curtin University of Technology, Australia	2	0.7
25	JISC InfoNet, Newcastle upon Tyne, UK	2	0.7
25	JMCL Development Ltd. UK	2	0.7
25	London Metropolitan Archives, UK	2	0.7
25	London School of Economics, UK	2	0.7
25	Modul 1 Data AB, Solna, Sweden	2	0.7
25	Recordkeeping Inventory Pty. Ltd., Australia	2	0.7
25	Renmin University of Beijing, China	2	0.7
25	Royal Melbourne Institute of Technology, Australia	2	0.7
25	Southmead Hospital, North Bristol NHS Trust, Westbury-on-Trym, UK	2	0.7

25	State Records Authority of New South Wales, Australia	2	0.7
25	Voluntary Services Overseas, London, UK	2	0.7
40	Institution/Organization appearing only once	124	42.1
	<b>Total</b>	<b>294</b>	<b>100</b>

## CONCLUSION

This study aims to investigate the development of knowledge in records management discipline by using bibliometric analysis on the *Records Management Journal*. The findings have suggested that there is a considerable growth in the field of records management. 33.2% of the articles are research papers while 13.6% are case studies making the combination of research and case studies articles a total of 46.8% which is almost half the total amount of articles in their first 15 years of publication. This shows that records management research is growing from time to time. In the last two years of publication duration studied, an average of 4 research and case study articles are published. The development of knowledge can also be seen through the constant amount of scholarly articles between 4 to 7 articles for each issue and the subject distribution has also revealed a total of 13 sub-areas being used to categorize the articles which saw system design and implementation as the most talked subject, followed by best practices, standards and guidelines. Preservation and marketing are among the subjects that are not widely discussed in the first 15 years of the journal's publication.

The findings of the study shows that in the duration of 15 years of *Records Management Journal* publication, it has attracted worldwide contribution, not only from the UK and Australia but also from countries, such as Malaysia, Singapore, Kenya, Iceland, Nigeria, China, Botswana, Germany, Finland, Switzerland and Denmark and these countries had their authors contribute articles more than once. It is interesting to widen the duration of the studied period from 15 years to 20 years to further investigate the growth of knowledge in the field of records management, especially as the last 5 years has seen globalization and rapid growth of technology in the field of records management.

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