

Malaysian Publication Contributions to the Field of Library and Information Science

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Abstract

The paper (a) described the total number and spread of publications produced by Malaysian contributors in the field of LIS for the period 1965 and 2005; (b) identified the active authors and authorship pattern, (c) identified the affiliation status of Malaysian researchers; (d) the preferred channel of research publications; and (e) the subject areas covered by the published works in LIS. The sample of the study comprised all located publications in the field of LIS by Malaysian authors published in Malaysia and abroad. Data was collected from LIS related online databases; online public library catalogues of selected libraries in Malaysia and Malaysian LIS journals. The data used in this study comprised 1045 publications which were based on accessible literature only. The results indicated (a) Malaysian LIS authors preferred publishing in journals (511, 48.9%), followed by conference papers (474, 45.4%), books (31, 2.9%) and book chapters (29, 2.8%); (b) even though the publication distribution fluctuated the moving average depicted a steady incremental trend over the 41-year period, (c) a total of 506 Malaysian authors contributed to the 1045 publications and 309 authors are one-time publishers, while the rest published between 2 and to as high as 52 publications; (d) the active Malaysian authors in LIS were affiliated to 131 institutions and the three dominant productive institutions were the National Library of Malaysia, University of Malaya Library and MLIS programme at the University of Malaya; (e) the subject areas written about in order of productivity were Management of library and information centres (30%), Information services (23%); Collection development and management (16%), ICT applications in LIS (14%), Information sources (10%), Organization of information (5%) and Legal issues in LIS (2%). The results revealed the areas actively written about, the productive authors and institutions. It highlights the areas which needed improvements and expansion in the field.

Keywords: Bibliometrics; Publication productivity; Authorship pattern; Malaysian authors

1. Introduction

The dissemination and consumption of research findings by researchers, scholars and practitioners is seen as a necessary act of expanding and informing knowledge in any fields of study and this holds true in the field of library and information science (LIS). Research and publications help to sustain the development of new knowledge and ultimately contribute to the growth of LIS as a profession or discipline. Practitioners use published works on theories and best practices in solving problems and decision making in the workplace (Winston and Williams, 2003). Researchers and scholars in LIS use publications to communicate as well as assess merit for tenure and promotion. Publications are tangible outputs of research in the form of research reports, academic dissertations, theses, journal articles, conference papers, book chapters, monographs and books (Moracsik, 1985).

Publication count is an indicator of research productivity and is used to rank faculties and academic institutions (Narin and Hamilton, 1996; Toutkoushian, et al., 2003; Liu and Cheng, 2005; Meho and Spurgin, 2005). It can also be used to ascertain author's productivity (Hart, 2000a; 2000b) or the publication productivity of research groups (Uzun, 2002; Kademani, et al., 2005). It has been used to assess the productivity of persons in a particular discipline (Gu and Zainab, 2001 for computer science; Tsay, 2004 in subject indexing literature). In an ideal situation research publications extend and

trigger scholarly discussions between practitioners and educators, both of whom are producers and consumers of such publications.

Most studies have used the *ISI Thomson* databases to obtain publication productivity counts (Muffo, Mead and Bayer, 1987; Waworuntu and Holsinger, 1989; Liu and Cheng, 2005). Meho and Spurgin (2005) studied the research productivity of LIS faculty and schools from a list of 2,625 published items between 1982 and 2002. The results showed that there were 10 databases that provide significant coverage of LIS indexed literature. This shows that limiting the data source may lead to inaccurate productivity picture, since no one database provides a complete coverage of the LIS literature. LIS literature is highly scattered and is not limited to a single database. Besides the ISI databases, other studies on publication productivity have used data from yearbooks, contributions in specific journals (Zemon and Bahr, 1998 studied *College & Research Libraries* and *Journal of Academic Librarianship*; Yontar and Yalvac, 2000 studied *Turkish Librarianship*; Mabowonku, 2001 and Atinmo and Jimba, 2002 studied *African Journal of Library, Archives and Information Science*; Tiew. Abrizah and Kiran, 2002, studied *Malaysian Journal of Library & Information Science*; and Liu, 2003 studied *Journal of the American Society for Information Science and Technology*) or subject-based online databases such as *Library Literature*, *LisaPlus* and *LISTA* (Ana and Mooko, 1999; Nwakanma, 2003; Horri, 2004).

A substantial proportion of publications in the field of LIS was contributed by LIS academic librarians (Bradigan and Mularski, 1996) and LIS faculty (Adamson and Zamora, 1981; Hayes, 1983; Budd and Seavey, 1996). In the latter case, a significant difference was found in the publishing productivity of associate professors and full professors (Hayes, 1983). However, later studies has indicated a reduction in the gap and an overall increase of publication productivity at all ranks. Reasons given for this situation were the reaction to increased promotion and tenure pressures and the existence of doctoral programmes within the schools (Adkins and Budd, 2006). This increased publication productivity was also reported by Budd (1999) who analysed publishing patterns of faculty at selected American institutions for the period 1991 to 1993 and 1995 to 1997. Budd observed that the publishing activity of the research universities were higher than the non-research universities. In another study, Budd (2000) compared publication productivity with faculty rank and institutional affiliation. He found that those who hold senior ranks were more productive and the majority of LIS faculty situated in research universities tended to foster scholarly publications.

Practitioners, especially those in academic libraries were also active authors. This was especially so among American academic librarians in universities where publications were placed highly in the tenure and promotion process. In the American context, college librarians published less than their counterpart at the universities (Budd and Seavey, 1990; Zemon and Bahr, 1998; Joswick, 1999; Hart, 2000a, 2000b; Henry and Neville, 2004). Librarians working in the academic health sciences institutions were more likely to have published at least once than those working in hospital libraries (Fenske and Dalrymple, 1992) because less of the latter provided support in terms of release time for research. There was doubt that the publication activity of practitioners (especially among academic librarians) was the result of the requirements imposed for promotion and tenure. Hart (1999) found that 80% of librarians at the Penn State University recognized the importance of publications for their career advancements and most spent about 19.8 hours per month on their research. This has resulted in an increase in the amount of research and publication output among Penn State Librarians over the 15 to 20 year period studied. Joswick (1999) observed that a higher percentage of authors in LIS were collaborating and women would more likely collaborate than men.

Publication productivity of LIS academics and practitioners were also investigated in other parts of the world. In Iran, Horri (2004) studied 2490 titles in LIS produced from

1968 and 1998 by Iranian faculty and observed preferred publication format and subject coverage. In Nigeria, Aina and Mooko (1999) studied 294 publications from 34 top African LIS researchers and authors between 1990 and 1995 listed in *LISA* and indicated that the top researchers in LIS in Africa came from Nigeria and South Africa. In another Nigerian study, Edem and Lawal (1999) found that librarians' publication output were related to their level of satisfaction, responsibility and recognition. Agboola and Oduwole (2005) studied 41 LIS professionals in 7 academic libraries in Ogun State in Nigeria in 2002 and 2003 and found that regular staff seminars had positively affected their publication output in terms of quantity and quality. In Malaysia, Tiew, Abrizah and Kiran (2002) analyzed contributions to the *Malaysian Journal of Library & Information Science* from 1996 and 2000 and identified the journal's publication pattern as well as the authorship pattern. Yeoh (2005) studied in detail 251 research publications in LIS in Malaysia and described the research approaches used to investigate by the authors.

This paper will add on to the above Malaysian studies and will attempt to assess and describe Malaysian publication contributions in the field of LIS for the period 1965 to 2005. An attempt will be made to provide a "picture" on LIS research and publication activity, the publication trends and pattern, the authorship pattern and subjects areas covered by the authors.

2. Methodology

Joswick (1999) remarked that mapping the characteristics of librarian authors help to define the dynamics and vigor of the discipline, identify research-oriented individuals and institutions and chart trends and techniques. Authors and scholars in a discipline are usually the main contributors to the body of knowledge in a field and the publications produced reflect the proliferation of knowledge and identify productive as well as collaborative authors in the field (Oyeniy and Bozimo, 2004). This paper (a) shows the total number and spread of publications produced by Malaysian authors in field of LIS for the period 1965 to 2005; (b) indicates the active authors; (c) indicates the authorship patterns; (d) indicates the affiliation status of the authors; (e) indicates the main channel used to publish; and (f) indicates the subject areas covered by the published works.

The study confined its scope to the publications produced between 1965 and 2005 by Malaysian authors in the field of LIS published in Malaysia as well as abroad. Bibliometric techniques and regression analysis were employed as the measuring instrument. The publications in this context refer to "located" items retrieved from online databases, *Library Literature*, *LISAnet*, *Springerlink*, *Educational Resources Information Centre (ERIC)*, *Emerald fulltext*, *Science Direct* and *Proquest*. The Online Public Access Catalogues (OPACs) of seven libraries, University of Malaya library, Universiti Kebangsaan Malaysia library, Universiti Putra Malaysia Library, Universiti Sains Malaysia Library, Universiti Teknologi MARA Library, International Islamic University Library and National Library of Malaysia were also searched because these libraries are considered well established and is expected to more likely hold earlier and current LIS publications. Moreover, three of the libraries serve library schools in Malaysia. Besides this, primary sources such as refereed journals published in Malaysia in LIS or LIS related fields were perused, which included *Malaysian Journal of Library and Information Science*, *Kekal Abadi*, *Sekitar Perpustakaan*, *Majalah Persatuan Perpustakaan Malaysia*, *Masalah Pendidikan* and *Jurnal Pendidikan*. Located citations were entered into an access database and a Bibliometric Toolbox, which reads text files generated from the access database, provided brief summaries of ranked results as well a bibliograph and a minimal Bradford zonal analysis. A modified subject category based on Gorman and Corbitt's Model of Core Competencies for LIS (Edzan and Abrizah, 2003) was used when analyzing the subject coverage of the citations.

Publications in the context of this study, excluded unpublished works such as dissertations and theses. For books and monographs the study was limited to those which could be located in library holdings reported in library's OPACs. As such, citations were collated based on accessible literature only. It is suspected that publications which have not been deposited in libraries may have been missed.

3. Results

(a) Total and Trend of Publication Contributions by Malaysian Authors

A total of 1045 publications were retrieved and collated from the various online databases, OPACs and LIS primary Malaysian journals. The publications were grouped into eight 5-year periods (Table 1). The publication trend started low at 27 during the embryonic period (1965-1969), where only a few authors had begun to publish their works. The number of publications began to increase from 1970 and continued at a steady rate up to 1999. Publication contributions in LIS peaked between 1995 and 1999 with 255 publications. The average publications produced per year was about 25.5. When the distribution of publications was plotted graphically with calculated trendline and moving average, the 41-year period indicated a positive upward trend of publication productivity and it is further predicted that this trend could continue in the future. The moving average depicted a steady, incremental upward trendline ($y=27.036x + 8.9643$, $R^2 = 0.7804$). Cumulatively the period between 1990 and 2005 was the most productive period for Malaysian contributors. (Figure 1)

Table 1: Publication Trends in LIS by Malaysian Authors

Year Bands	Number of Publications (n=1045)		Cumulative Number of Publications	
1965-1969	27	2.6%	27	2.6%
1970-1974	61	5.8%	88	8.4%
1975-1979	63	6.1%	151	14.5%
1980-1984	153	14.6%	304	29.1%
1985-1989	149	14.3%	453	43.3%
1990-1994	169	16.2%	622	59.5%
1995-1999	255	21.5%	877	83.9%
2000-2005	168	16.1%	1045	100.0%

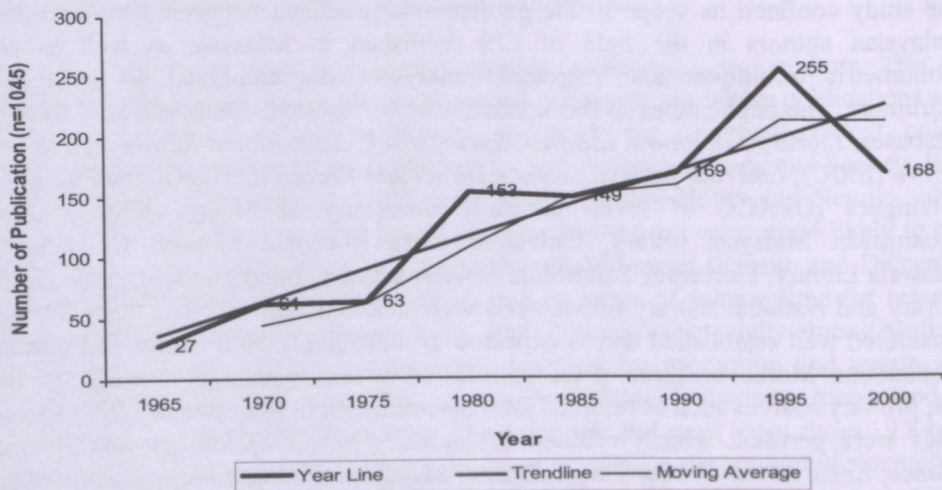


Figure 1: Cumulative Publication Productivity, Trendline and Moving Average

(b) Publication Productivity of Malaysian Authors in LIS

A total of 506 Malaysian authors contributed to the 1045 publications during the 41-year period (Table 2). The majority of Malaysian authors were one time contributors (309, 61%) and only 197 authors contributed two or more publications. This finding corroborates with Lotka's Law of Scientific productivity (Lotka, 1926) which predicted that only a small number of authors were highly productive in most field of studies. Table 3 listed authors' names and the number of publications they contributed. As most of the information derived for this study was obtained from the online databases, OPACs and Malaysian LIS journals, the collated citations may have missed documents that have not been acquired by or deposited at the library.

Table 2: Publication Productivity of Malaysian Authors in LIS

Number of Author (n=506)		Number of Publication (n=1045)		Cumulative Number of Author	
1	0.2%	52	5.0%	1	0.2%
1	0.2%	50	4.8%	2	0.4%
1	0.2%	33	3.2%	3	0.6%
2	0.4%	24	2.3%	5	0.9%
1	0.2%	23	2.2%	6	1.2%
2	0.4%	21	2.0%	8	1.6%
2	0.4%	18	1.7%	10	1.9%
1	0.2%	17	1.6%	11	2.2%
2	0.4%	14	1.3%	13	2.6%
2	0.4%	13	1.2%	15	2.9%
3	0.6%	12	1.1%	18	3.6%
2	0.4%	11	1.1%	20	3.9%
3	0.6%	9	0.9%	23	4.5%
3	0.6%	8	0.8%	26	5.1%
6	1.2%	7	0.7%	32	6.3%
9	1.8%	6	0.6%	41	8.1%
15	2.9%	5	0.5%	56	11.1%
18	3.6%	4	0.4%	74	14.6%
35	6.9%	3	0.3%	109	21.5%
88	17.4%	2	0.2%	197	38.9%
309	61.0%	1	0.1%	506	100%

Table 3: The Active Malaysian Authors in LIS

Group	Authors' Names	Number of Publication(s)
1	Cohort: 1 Zainab Awang Ngah	52
2	Cohort: 1 D.E.K. Wijasuriya	50
3	Cohort: 1 Shahar Banun Jaafar	33
4	Cohort: 2 Mariam Abdul Kadir Syed Salim Agha	24
5	Cohort: 1 Lim Huck Tee	23
6	Cohort: 2 Ding Choo Ming Khoo Siew Mun	21
7	Cohort: 2 Raja Abdullah Raja Yaacob Zaiton Osman	18
8	Cohort: 1 Zawiyah Baba	17
9	Cohort: 2 Ahmad Bakeri Abu Bakar Nor Edzan Nasir	14
10	Cohort: 2 Abrizah Abdullah Halimah Badioze Zaman	13

11	Cohort: 3 Oli Mohamed Abdul Hamid Shellatay Devadason Tiew Wai Sin	12
12	Cohort: 2 Katni Kamsono Kibat Norpishah Mohd Noor	11
13	Cohort: 3 Adeline Leong Rashidah Begum Teh Kang Hai	9
14	Cohort: 3 Andrew Lee Fook Phin Mohd Sharif Mohd Saad Wan Ab. Kadir Wan Dollah	8
15	Cohort: 6 Beda Lim Kamariah Abdul Hamid Lim Chee Hong Norma Abu Seman Rosna Taib Zawiyah M. Yusof	7
16	Cohort: 9 Abdullah Kadir Bacha Ara Talib Chan Sai Noi Chew Wing Foong Devinder Kaur Chall Kiran Kaur Ku Joo Bee Rohani Rustam Shaikha Zakaria	6
17	Cohort: 15 Alimah Salam Diljit Singh Flora Fung Khoo Kay Kim Lucien De Silva Molina Sinha Nijhar Molly Chuah Norkhayati Hashim Rosham Abdul Shukor Rugayah Abdul Rashid Shahaneem Mustafa Sharon Manel De Silva Siti Mariani Omar Tan-Lim Suan Hoon Wong Kim Siong	5
18	Cohort: 18 Ab. Rahim Selamat Amanah Ahmad Bathmavathi Krishnan Ibrahim Ismail J.S. Soosai Johnny Kueh Juhana Salim Mardhiah Md. Zin Mohd Taib Mohamed Norehan Ahmad Norkhaton Mohd Yunus Safiah Osman Siti Aishah Sheikh Kadir Siti Zakiah Aman Syed Ahmad Ali Victor Jesudoss Wan Ali Wan Mamat Wong Vui Yin	4
19	Cohort: 35	3
20	Cohort: 88	2
21	Cohort: 309	1

(c) Authorship Patterns of Published Works

Most of the published works were single authored works (804, 76.9%). About 200 publications were authored jointly and 41 publications were authored by three or more authors. One conference paper was authored by 8 authors and another two was authored by five co-authors (Figure 2). When the authorship pattern was plotted graphically and chronologically for the 41-year period, the overwhelming predominance of single authored works was clearly indicated (Figure 3). The number of joint authored works seemed to be increasing steadily from 1970 onwards and this number is expected to increase in future.

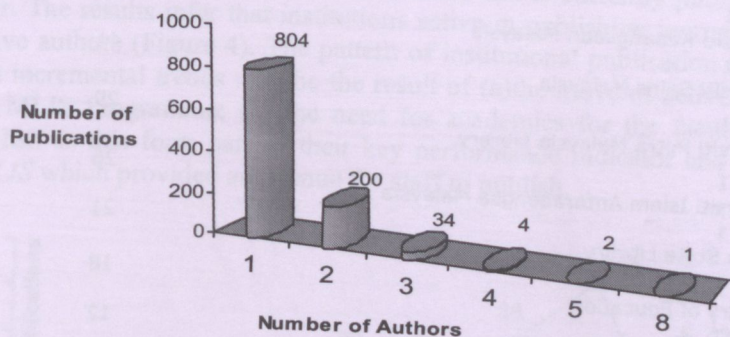


Figure 2: Authorship Pattern of Published LIS Works

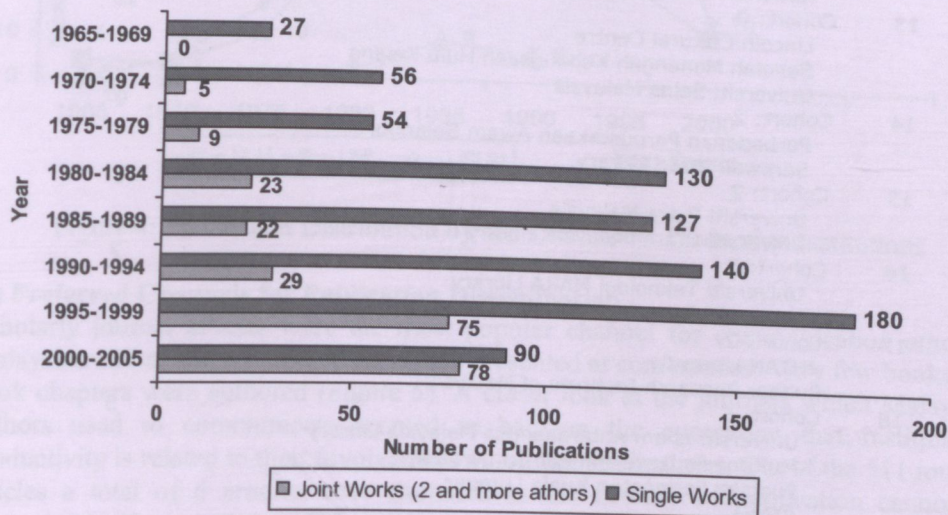


Figure 3: Authorship Pattern in the Five-year Bands

(d) Institutional Publication Productivity in LIS

In order to ascertain institutional productivity, the institutional affiliation of each author was extracted. In this context, only the affiliations of journal articles and conference papers contributors were included and the affiliation of books and book chapters were dropped from the analysis as no affiliation status was indicated in the latter. As a result the analysis in this section was based on 985 publications comprising journal articles and conference papers. The 985 publications were produced by 131 authors from Malaysian institutions. Of the 131 institutions, authors from 55 (42%) institutions contributed only one publication. Authors from three institutions dominated as contributors. Perpustakaan Negara Malaysia (National library of Malaysia, NLM) tops the list with 190 publications, followed by the University of Malaya Library (UML) with 151 and the MLIS Programme at the Faculty of Computer Science and Information Technology, University of Malaya came third with 95 publications.

Table 4: Publication Productivity by Institutional Affiliation

Group	Institutional Names	Number of Publication(s)
1	Cohort: 1 Perpustakaan Negara Malaysia	190
2	Cohort: 1 University of Malaya Library	151
3	Cohort: 1 LIS School, Universiti Malaya	95
4	Cohort: 1 Universiti Teknologi MARA	69
5	Cohort: 1 Universiti Kebangsaan Malaysia	60
6	Cohort: 1 Universiti Sains Malaysia	41
7	Cohort: 1 Universiti Putra Malaysia Library	29
8	Cohort: 1 Universiti Islam Antarabangsa Malaysia	26
9	Cohort: 1 Sabah State Library	21
10	Cohort: 1 Ministry of Education	18
11	Cohort: 1 Dewan Bahasa dan Pustaka	12
12	Cohort: 1 National Archive of Malaysia	11
13	Cohort: 3 Lincoln Cultural Centre Sekolah Menengah Kebangsaan Hulu Kelang Universiti Sains Malaysia	10
14	Cohort: 2 Perbadanan Perpustakaan Awam Selangor Sarawak State Library	9
15	Cohort: 2 Universiti Putra Malaysia Universiti Utara Malaysia Library	8
16	Cohort: 2 Universiti Teknologi MARA Library Universiti Teknologi Malaysia Library	7
17	Cohort: 2 INTAN Library Rubber Research Institute of Malaysia	6
18	Cohort: 5 Universiti Islam Antarabangsa Malaysia Library Multimedia Development Corporation Pustaka Peringatan Kuala Lumpur SIRIM TELEKOM	5
19	Cohort: 12	4
20	Cohort: 7	3
21	Cohort: 29	2
22	Cohort: 55	1

The institutional productivity seemed to be related to journal publication activity in Malaysia. The National Library of Malaysia is the publisher of *Sekitar Perpustakaan* (first issued in 1977) and *Majalah Perpustakaan Malaysia* (first issued in 1972). These two journals were among the earliest journals published in Malaysia and most of NLM's authors actively contributed to these journals. Similarly, the publication activity of NLM staff had begun in the 1970s when their journal was published and peaked between the 1995-1999 year band, after which their publication contributions declined when both journals were published on an irregular basis and because of the retirement of their active authors. The trendline of publication activity indicated a steady increase until the decline

after 1999. The same situation was indicated in the case of UML which published *Kekal Abadi* since 1982. As a result, the publication productivity of UML authors increased from 1980 onwards as *Kekal Abadi* became an important channel for UML staff to communicate their writings. This publication activity had begun to slowly decline from 1995 onwards as the publication of this journal became irregular and as result of the retirement or the moving jobs of their active authors. The LIS programme at the University of Malaya (LISUM) publishes the *Malaysian Journal of Library and Information Science (MJLIS)* since 1996. Consequentially, the publication productivity of its faculty members increased drastically from 1995 onwards and remained at a steady pace as the journal remained in circulation and is currently published regularly twice a year. The results infer that institutions active in publishing journals also tend to harbour active authors (Figure 4). The pattern of institutional publication contributions indicated that incremental trends may be the result of (a) the move of active authors from UML to the MLIS Programme; (b) the need for academics for the faculty members in LIS to publish as this form part of their key performance indicator and (c) the publication of *MJLIS* which provided an avenue for staff to publish.

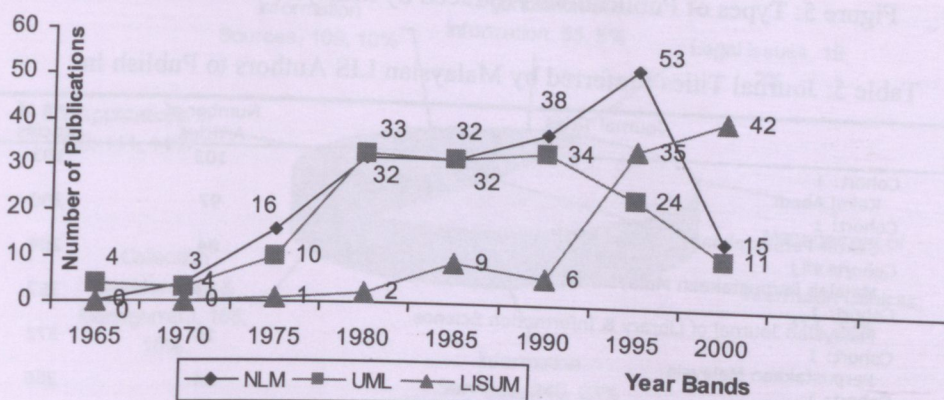


Figure 4: Publication Distribution by the Three Most Productive Institutions

(e) Preferred Channels for Publication Dissemination

Scholarly journal articles were the most popular channel for communication amongst Malaysian LIS authors, followed by papers presented at conferences. Very few books and book chapters were authored (Figure 5). A closer look at the journals which Malaysian authors used to communicate seemed to back-up the contention that institutional productivity is related to their involvement in journal publications. Out of the 511 journal articles a total of 6 articles were excluded as the country of publication cannot be determined. The remaining 505 articles were published by 58 local and international journals. Most Malaysian LIS authors published in Malaysian journals (397, 78.6%), followed by journals published in the United Kingdom (69 articles, 14.0%), the United States (12 articles, 2.4%) and the rest were published in journals published in diverse number of countries both in Europe and the Asia Pacific. The top four Malaysian journal titles which LIS authors prefer to publish in, in accordance of degree of preference were *Kekal Abadi*, *Sekiar Perpustakaan*, *Majalah Perpustakaan Malaysia* and *Malaysian Journal of Library & Information Science* (Table 5). The top three foreign journals preferred by Malaysian LIS authors were *Information Development* (14 articles), *Asian Libraries* (11), and *International Information and Library Review* (7). Malaysian LIS authors were also contributing to main stream ISI LIS journals. Among the ISI journals that published two or more Malaysian articles include *Libri* (6 articles), *Journal of Librarianship and Information Science* (3), *Journal of Information Science* (2) and *Program* (2). Hence, though Malaysian authors actively published in Malaysian journals, they were also actively publishing in journals worldwide and this number is increasing each year especially between 1995 and 2005.

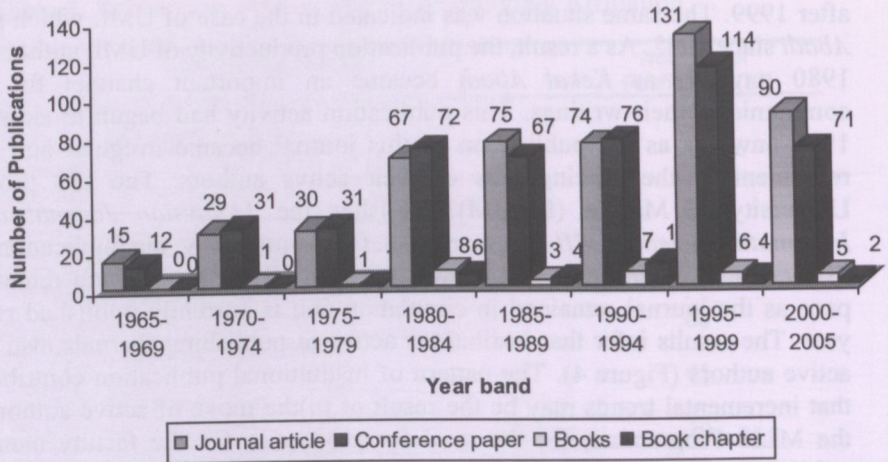


Figure 5: Types of Publications Produced by Malaysian LIS Authors

Table 5: Journal Titles Preferred by Malaysian LIS Authors to Publish In

Group	Journal Titles	Number of Articles	Sum of Articles
1	Cohort: 1 Kekal Abadi	103	103
2	Cohort: 1 Sektor Perpustakaan	97	200
3	Cohort: 1 Majalah Perpustakaan Malaysia	84	284
4	Cohort: 1 Malaysian Journal of Library & Information Science	73	357
5	Cohort: 1 Perpustakaan Malaysia	15	372
6	Cohort: 1 Information Development	14	386
7	Cohort: 1 Asian Libraries	11	397
8	Cohort: 3 International Information and Library Review Jurnal PPM Library Review	7	418
9	Cohort: 1 Libri (ISI)	6	424
10	Cohort: 1 Jurnal Pendidikan UM	5	429
11	Cohort: 2 IFLA Journal Jurnal Pendidikan UKM	4	437
12	Cohort: 7 International Cataloguing Journal of Librarianship and Information Science (ISI) Masalah Pendidikan Pendidik dan Pendidikan Quarterly Bulletin of the International Association of Agricultural Information Specialists Scholarly Publishing Herald of Library Science	3	458
13	Cohort: 10 Intellectual Discourse International Review of Children's Literature and Librarianship Journal of Educational Media and Library Sciences Journal of Information Science (ISI) Library History Review New Review of Children's Literature and Librarianship Program (ISI) Records Management Journal World Libraries Education for Information	2	478
14	Cohort: 27	1	505

(f) Publication Productivity by Subject Areas

The distribution of subject areas covered by the 1054 publications is given in Figure 6. Management of Library and Information Centres was the most popular subject written about, covering issues such as library buildings, planning facilities, roles and support, human resource and professionalism, education in LIS, policies and standards, marketing and promotion and library history. Equally popular were issues on information services (information needs, service evaluation, circulation and inter-library loans, performance measures and reference services), collection development (special collection, acquisition and selection, collection policies, evaluation of sources, gift and exchange and bibliographic control), ICT applications in LIS (digital libraries, information systems, library management systems), information sources (online databases, bibliographies, non-book sources), organization of information (cataloguing, information retrieval, indexing and abstracting) and legal issues in LIS. The subject analysis of published works indicated that Malaysian authors in LIS have varied research interests.

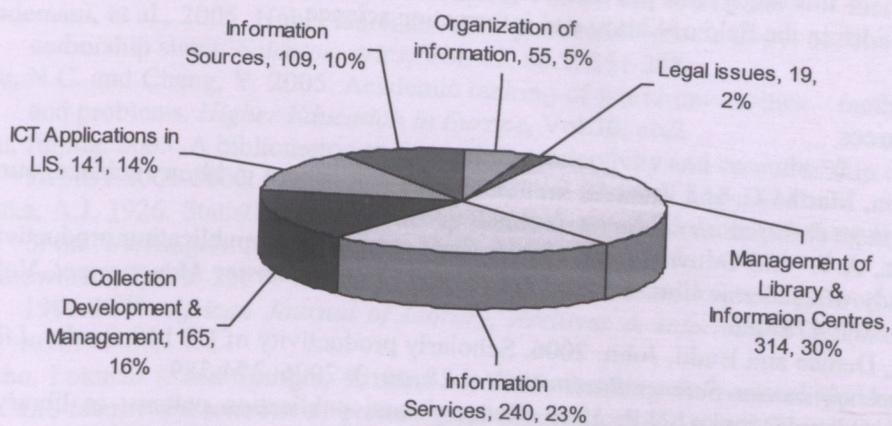


Figure 6: Distribution of Subject Areas of Research in LIS by Malaysian Authors

4. Conclusion

The results of this study have drawn a number of conclusions. Firstly, the field of LIS in Malaysia is evolving into a developed discipline and Malaysian publication contribution in this field is on an upward trend. Management of library and information services is the most active subject area of research by Malaysian researchers and represents as the largest body of knowledge in Malaysian LIS publications. Secondly, the results also revealed that a few highly productive authors contributed to most of the publications, and these authors are affiliated to institutions that are active and productive in research activities. Thirdly, collaboration encourages author productivity and enhances the quality of articles. Collaborative effort among researchers is expected to increase in the future as the number of multi-authored works is gradually increasing each year even though single-authorship still dominate the Malaysian authorship patterns in LIS. Finally, journal is the primary channel used to communicate research findings by Malaysian researchers and is regarded as an important channel to make research findings 'visible' to others.

The present study has helped to locate, identify and bibliographically control all published works by Malaysian LIS professionals and academics. The body of Malaysian LIS literature reflects the dynamism and vigor of LIS discipline in Malaysia as Malaysian publication contributions in this field is on an upward trend and this contributes to the growth of LIS discipline in Malaysia. This study has revealed much information that may

be useful to researchers and scholars in LIS, as well as policy makers to provide adequate facilities to support research activities towards the development and growth of LIS research publications in Malaysia. Moreover, hopes to encourage other researchers to explore other local areas of possible improvement and expansion in the field.

The current study has only focused on Malaysian publications obtained from online databases, library holdings as reported in online library OPACs and LIS related Malaysian journals. As such, it is suspected that publications that have not been reported or deposited in libraries may have been missed. Publication outputs in the form of theses, dissertations and final year graduation exercises have been excluded. It is realized that limiting the data sources may have lead to inaccurate analysis and rankings. This is exacerbated by the characteristics of the LIS discipline itself being multidisciplinary in nature as well as the LIS literature is highly scattered and no single database provides a complete coverage of the literature (Meho and Spurgin, 2005). Further studies, covering all Malaysian published works that has been incorporated into foreign and local databases, could greatly complement this study and provide a more complete picture of Malaysian publication contributions in the field of library and information science.

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