

## **Malaysian Scholarly Open Access Journals during 2005-2012: A Survey**

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### **Abstract**

The main idea of this survey was to gather the data related to Malaysian Open Access Journals (OAJs) with respect to their subject, host organization, indexing, full text availability and language during 2005-2012. Malaysian journals were selected for this survey because Malaysia is currently one of the successful countries in science and technology among other Islamic countries. Data gathering was performed through using various sources of information such as literature, search engines, and directories. Altogether 216 Malaysian scientific OAJs were identified and analyzed. Most of these journals are published by universities in comparison with research institutes. The number of OAJs in "Social Sciences" and "Engineering and Technology" is higher than other subject fields. The main language of Malaysian OAJs is English.

**Keywords:** Open access journals, Electronic journals, Electronic publishing, Malaysia.

### **Introduction**

Many journals' publishers around the world compete to attract authors and readers. One of the best solutions to be successful in this regard is electronic publishing. Through this innovation, what was once available on library shelves is now available at the click of a mouse; resulting in access and exposure to the near limitless online information source. "Open-access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions. What makes this possible is the Internet and the consent of the author or copyright-holder" (Elbeck, 2008). DOAJ<sup>1</sup> (2010) defines OAJs as journals that use a funding model that does not charge readers or their institutions for access. From the BOAI<sup>2</sup> (2001) definition of "open access" we take the right of users to "read, download, copy, distribute, print, search, or link to the full texts of these articles" as mandatory for a journal to be

included in the directory. In overall, electronic publishing is often considered to have the following advantages over print publishing (Morris, 2006):

1. International access. If a journal is available on the Internet, the readers all over the world can access that. The publishers need to carry out some international promotion to raise awareness and trust in their publication.

2. Speed of publication. In electronic publishing, it is possible to publish an issue as soon as it is ready, and it is not necessary to wait for printing, bounding and involve with their specific problems.

3. Linking capability. This is the ability to go from a citation within the body of an article to the relevant reference at the end of the article, and from there to the actual article which is being referenced. Reference linking in scientific journals is now increasingly being undertaken using DOIs (Digital Object Identifier), which are unique identification codes assigned to online articles.

4. Reduced costs. Electronic publishing reduces cost of publishing compared with print version. It was initially assumed that publishing online has immediate cost savings. However, this is only true if the journal is no longer printed at all; continuing to print even a few copies removes most of the cost savings.

5. Available on time. The Internet makes it easy for reader to access the paper at the time of publication.

As Suber (2006) puts it open access removes "price barriers" (e.g., subscription fees) and "permission barriers" (e.g., copyright and licensing restrictions) to "royalty-free literature" (i.e., scholarly works created for free by authors), making them available with "minimal use restrictions" (e.g., author attribution). Access to an article, by any path, is a necessary pre-condition for citation, but access, by itself, is not sufficient for citation. Each article must be found to provide some specific value to the work under consideration before it is cited and thus entwined with other published works (McVeigh, 2004). OAJs are economically sustainable since true costs of peer review, manuscript preparation, and OA dissemination are considerably lower than the prices currently are being paid for subscription-based journals. It seems that more than enough money has already been committed to the journal-support system. Moreover, with the spread of OA, libraries are now aware of the large savings from the conversion, cancellation, or demise of subscription-based journals (Suber, 2006). Now OA is changing the way electronic materials are distributed. Access method, however, affects only the path a researcher takes to get the literature. It does not alter the nature of their interaction with the materials once they are located. Literature that is deemed by an author to be the most significant, the most scientifically sound, and the most relevant to their current work is not only accessed, it is read and retained. A subset of these valued articles exerts some influence on the research path. Finally, those articles with the greatest influence and relevance

are cited when subsequent research is later published. It is important to remember that the Open Access model only works for online publications. Many Open Access journals still sell a print version on subscription; in addition to covering the costs of printing and distribution, this may also help to defray the journal's other costs.

Due to their availability and accessibility, OAJs are widely suggested by the academics. Thus, there is no difference among Islamic or Non-Islamic Countries. One can observe this type of publications in Canada or America, as well as Saudi Arabia, Iran, Malaysia or any other country. Among the Islamic countries, it seems that the numbers of OAJs are considerable; and it is also the only Islamic country that pursues indexing all these journals in Citation Databases. Therefore, in this study the researchers focused on this country and its OA scientific journals as a case. Malaysian journals were selected for this survey because Malaysia is currently one of the successful countries in science and technology among other Islamic countries. It is also known as an advanced country in electronic publishing.

The previous study carried out in 1997 (Zainab, 2008) found the availability of Malaysian journals in 23 selected major indexing and abstracting databases. The study found a total of 43 Malaysian journal titles indexed by a selection of the STM (Science, Technology and Medical Sciences) international indexing and abstracting databases and 11 titles in the AHSS (Arts, Humanities and Social Sciences). But one must take this fact in to consideration that Zainab has had a long experience in this regard. Before all this, in another attempt Zainab, Edzan and Ang (2002) reported a time consuming and professional attempt in establishing.

Yet this paper concerned only on progress of open access journals during 2005-2012 in Malaysia. The result of this survey showed that Malaysia has achieved an important development regarding open access publishing among Islamic countries.

### **Research objective**

Based on researchers' preliminary observation, a considerable number of Malaysian scientific journals are published by Malaysian Universities and research institutes without participation of any commercial publisher<sup>3</sup>. Thus, the overall aim of this research was to gather more information about OAJs in Malaysia with respect to these parameters:

- a) Publishing situation (number of titles and issues per year)
- b) Subject coverage
- c) Host organization
- d) Indexing and abstracting services
- e) Full text availability
- f) Language.

### Research method

The time span of current study is 2005-2012. In order to identify the OAJs, various sources of information were used. Among the most important sources one can mention:

- Search engines especially Google,
- Directories of archives/repositories such as My Journal, and DOAJ, etc.
- Wikipedia,
- Blogs,
- Education and training institution websites and related literatures.

After identifying the OAJs, the researchers visited respective web pages and gathered information which was analyzed based on certain parameters such as type of model, funding agency or host organization, full text availability etc.

### Findings

In this section, the results are presented according to Malaysian OAJs during 2005-2012.

#### *The Malaysian OAJs arrangements*

From various sources and through searching, it was revealed that there was 216 OAJs available online in Malaysian's universities and research institutes during 2005-2012. Using their web pages, further information regarding parameters such as subject, indexing, host organization, full text availability and language were gathered.

The frequency distribution of the Malaysian OAJs during 2005 to 2012 based on their publisher (university or research institute) is shown as Figure 1.

The results show that during this time span the number of university OAJs differs dramatically from institutions' Journals. there is growth rate in OAJ publishing from 2005 to 2012. For example, in 2006, the percent of journal titles that were published by universities was highest (88% by universities vs 12% by research institutes).

In this time span (2005-2012) the OAJ publishing of the research institutes has kept its solid rate. As an example, during 2005-2012, 13.4% of Malaysian OAJs were supported by research institutes. Further analysis revealed that the biggest rate of journal discontinuation was attributed to the University of Malaya.

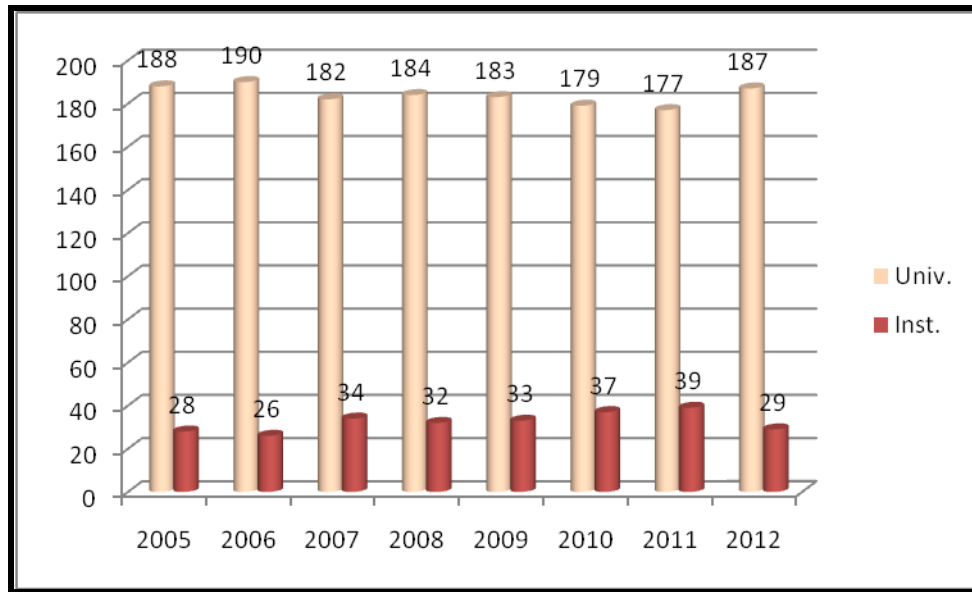


Figure 1. The frequency distribution of the Malaysian OAJs during 2005-2012

Total of 2067 issues were published during 2005-2012. The distribution of this total number during the specified time span is shown in Figure 2.

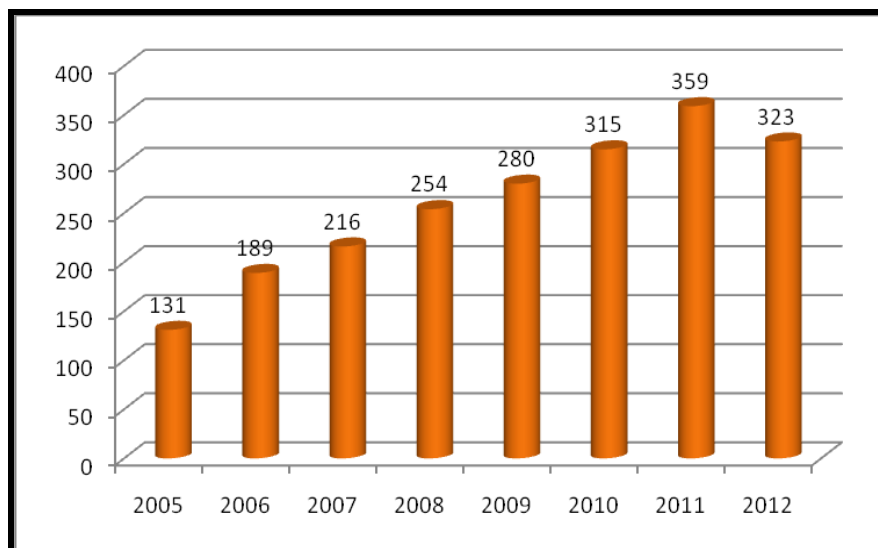


Figure 2. The number of issues per year in Malaysian OAJs during 2005-2012

### ***Subject coverage***

Looking at the subjects covered by all 216 journals, they were broadly classified into five subject categories including Social Sciences, Arts and Humanities, Basic Sciences, Engineering and Technology, and Medical and Health Sciences. The Percentage of the above subject categories distribution is respectively: 28%, 18%, 17%, 23%, and 14% (Figure 3).

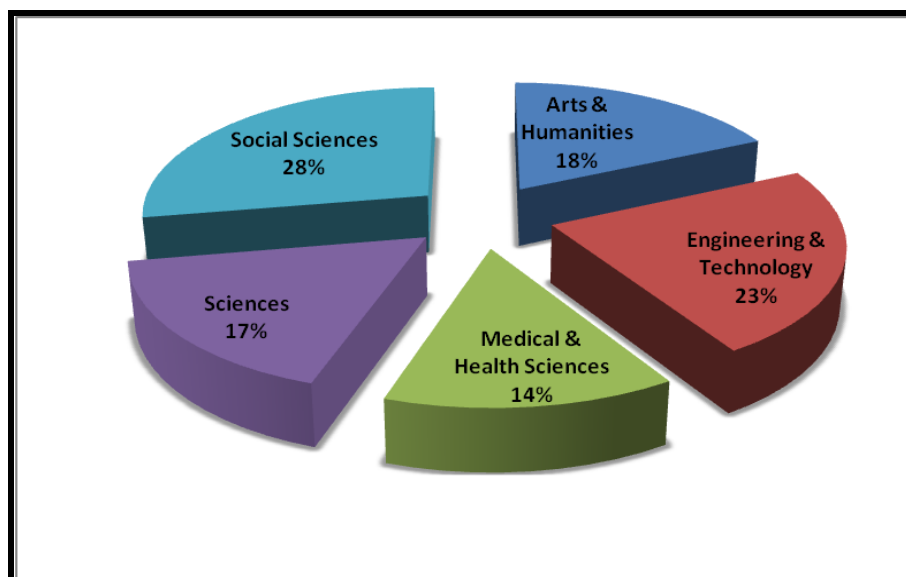


Figure 3. Distribution of subject categories in Malaysian OAJs

According to the Figure, Human Sciences and Engineering have higher publications than other subject categories.

#### *The publisher/funding organization of the Malaysian OAJs*

It was observed that most of the journals are published or funded by Malaysian universities and research institutes. These research institutes are mentioned in table 1. Out of 216 journals, 157 journals are published or hosted by Malaysian universities (table 2) and 59 journals are being fund by research institutes.

Table1

*Some of Malaysian research institutes along with the number of OAJs*

ROW	Research Institutes	Total	ROW	Research Institutes	Total
1	Dewan Bahasa dan Pustaka	3	27	Malaysian Institute of Marine Engineering Technology	1
2	Malaysian Educational Technology Association	2	28	Malaysian Mathematical Sciences Society	1
3	Malaysian English Language Teaching Association	2	29	Malaysian Medical Association	1
4	Malaysian Paediatric Association	2	30	Malaysian Nuclear Agency	1
5	MAREF	2	31	Malaysian Nuclear Society	1
6	Perpustakaan Negara Malaysia	2	32	Malaysian Orthopaedic Association	1
7	UMPEDAC	2	33	Malaysian Palm Oil Board	1

ROW	Research Institutes	Total	ROW	Research Institutes	Total
8	ASEAN Committee on Science and Technology	1	34	Malaysian Psychiatric Association	1
9	ASEAN Federation of Psychiatry and Mental Health (AFPMH)	1	35	Malaysian Public Health Physicians' Association	1
10	Asia-Pacific Management Accounting Association	1	36	Malaysian Society for Biochemistry and Molecular Biology	1
11	Automotive Engineering Centre	1	37	Malaysian Society for Microbiology	1
12	COSTAM	1	38	Malaysian Society for Molecular Biology and Biotechnology	1
13	Department of Statistics Malaysia	1	39	Malaysian Society of Analytical Sciences	1
14	Dr. Vasudeva Murthy	1	40	Malaysian Society of Applied Biology	1
15	Environmental Management Society Malaysia	1	41	Malaysian Society of Parasitology and Tropical Medicine	1
16	Forest Research Centre	1	42	Malaysian Society of Soil Science	1
17	Forest Research Institute Malaysia	1	43	MARDI	1
18	Geological Society of Malaysia	1	44	Nutrition Society of Malaysia	1
19	Institut Fizik Malaysia	1	45	Persatuan Genetik Malaysia	1
20	Institut Kimia Malaysia	1	46	Persatuan Pustakawan Malaysia	1
21	Institut Tadbiran Awam Negara	1	47	Persatuan Sains dan Teknologi Keadaan Pepejal Malaysia	1
22	Institute for Tropical Biology and Conservation	1	48	Persatuan Sejarah Malaysia	1
23	Jabatan Perkhidmatan Awam Malaysia	1	49	Plastics and Rubber Institute of Malaysia	1
24	Kementerian Pengajian Tinggi	1	50	The Association for Engineering Education in South East Asia, East Asia and the Pacific (AESEAP)	1
25	Malaysian Consumer and Family Economics Association	1	51	The Institution of Engineers Malaysia	1
26	Malaysian Dental Association	1			

Table 2

*The number of OAJs published by Malaysian universities along with the number of journals*

ROW	Universities	Total	ROW	Universities	Total
1	University of Malaya	41	16	Universiti Teknologi Petronas	2
2	Universiti Kebangsaan Malaysia	29	17	Academy of Family Physicians of Malaysia	1
3	Universiti Sains Malaysia	17	18	Academy of Medicine of Malaysia	1
4	Universiti Putra Malaysia	11	19	Academy of Sciences Malaysia	1
5	Universiti Teknologi Malaysia	9	20	International Medical University Malaysia	1
6	Universiti Utara Malaysia	7	21	Kolej Universiti Islam Sultan Azlan Shah	1
7	Intenational Islamic University Malaysia	5	22	Taylor's University	1
8	Universiti Teknikal Malaysia Melaka	5	23	Universiti Kebangsaan Malaysia and International Society of Muslim	1
9	Universiti Tun Hussein Onn Malaysia	5	24	Universiti Malaysia Pahang	1
10	Universiti Pendidikan Sultan Idris	3	25	Universiti Sultan Zainal Abidin	1
11	Universiti Kebangsaan Malaysia Medical Center	2	26	Universiti Teknologi MARA	1
12	Universiti Malaysia Perlis	2	27	Universiti Tenaga Nasional	1
13	Universiti Malaysia Sabah	2	28	Universiti Tun Abdul Razak	1
14	Universiti Malaysia Sarawak	2	29	University Utara Malaysia	1
15	Universiti Malaysia Terengganu	2			

### ***Indexing and abstracting***

All 216 journals were peer reviewed, indexed and abstracted in 28 different indexing and abstracting services among which one can see highly respected services such as Scopus, ISI or ISC. Other services constitute DOAJ, MyAIS<sup>4</sup> (Malaysian Abstracting and Indexing System), Google Scholar, and etc. (Figure 4).

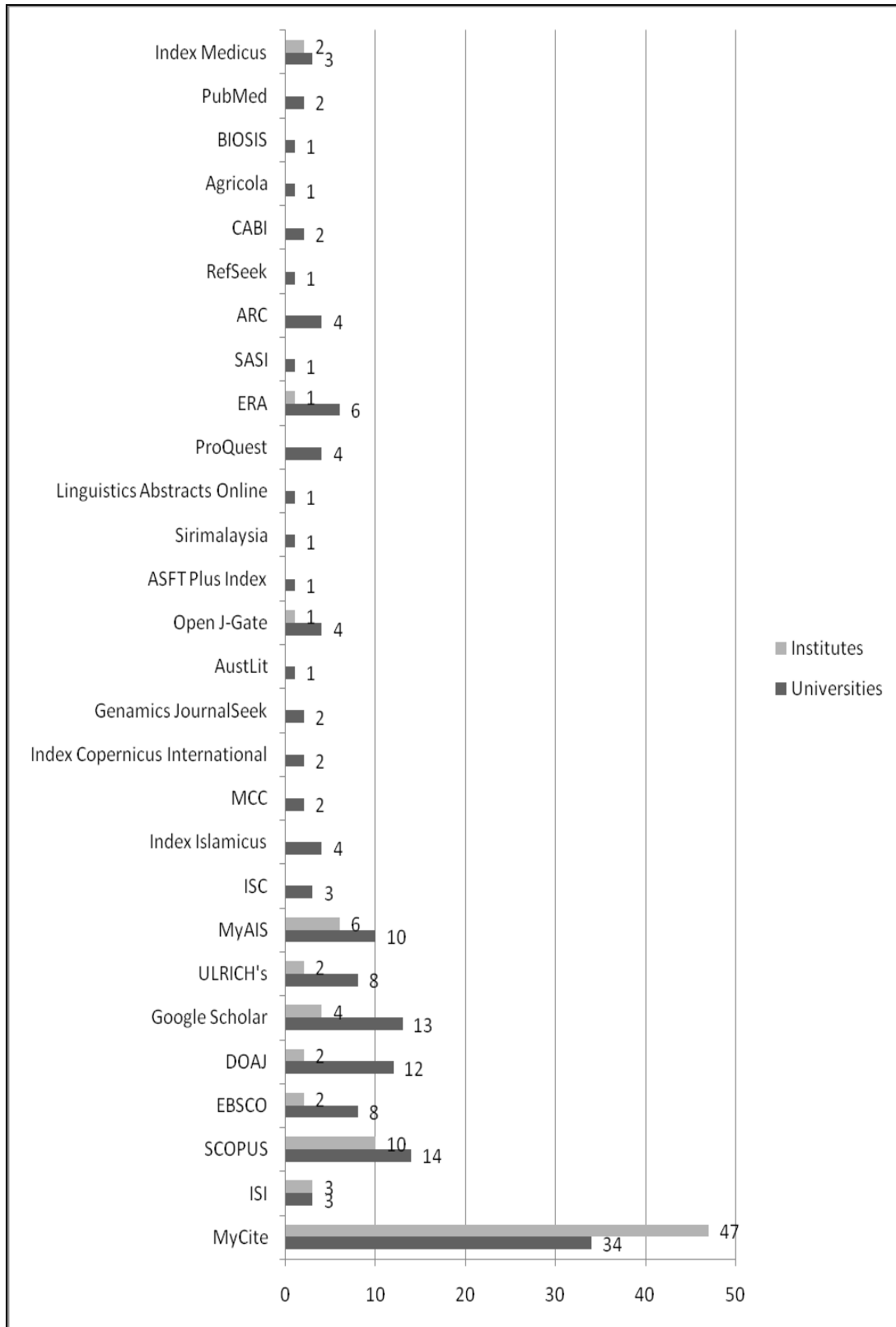


Figure 4. Number and percent of indexed OAJs by the indexing services

The distribution of journals based on number of times that they appear in different indexing services is shown in figure 5.

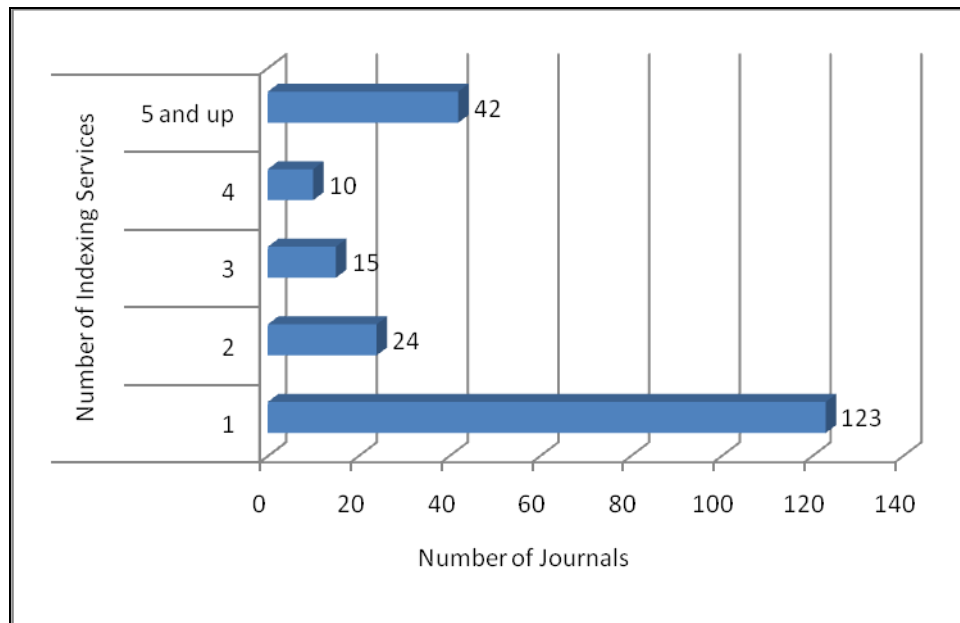


Figure 5. *Distribution of journals vs. indexing services*

This result shows that there are at least 42 journals which are currently being indexed in 5 or more indexing services (in some cases up to 10 different indexing services). For example, “Al-Bayan: Journal of al-Quran and al Hadith” is one of those journals which are currently indexed in 10 different indexing services.

### ***Full text availability***

Online full text availability of all 216 journals is considered since 2005. In general their archives were mostly available from 1990 onwards. One of the oldest archive available online was the Malaysian Society and Soil Sciences published by Malaysian Society and Soil Sciences that dates back to 1977. Another journal, Malaysian Journal of History, Politics and Strategic Studies hosted by Universiti Kebangsaan Malaysia provides its archive from 1979 onwards.

### ***Language***

Analyzing the Malaysian OAJs based on their language reveals that from 216 OAJs 157 journals were exclusively available in English. Others are either in Malay (4 titles) or bilingual (55 titles). Those 55 bilingual titles are mostly either English-Arabic or English-Malay (Figure 6).

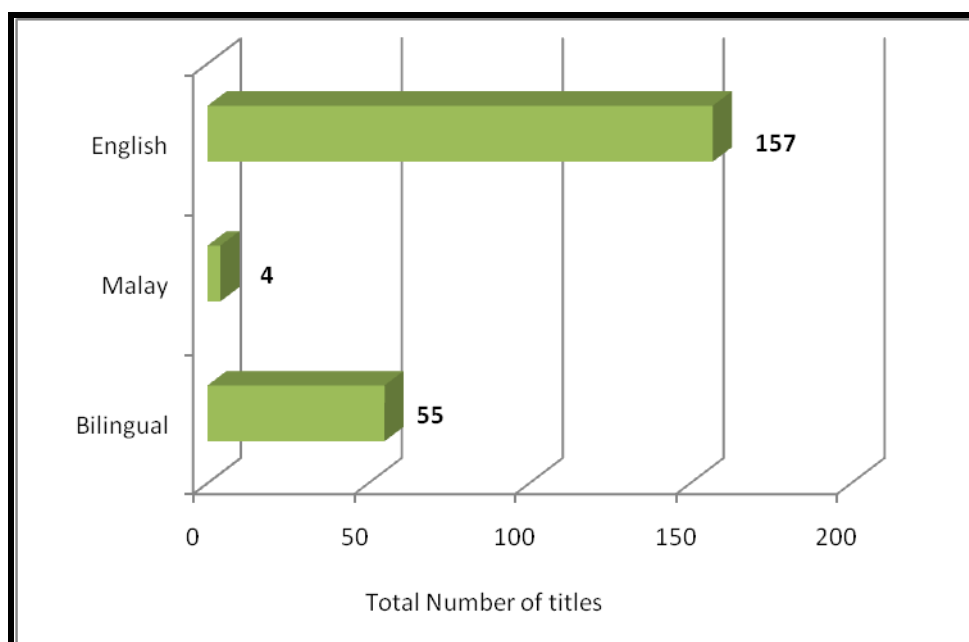


Figure 6. *Language distribution of Malaysian OAJs*

### Conclusion

With a total number of 216 it can be said that Malaysia has made important contributions towards the growth of open access publishing. Not only Malaysian Universities but also learned societies, associations, research institutes and publishers have taken a step towards open access movement. Also, there are efforts that had been done through the open access advocacy programs to create awareness among the academic community. This has made a considerable number of Malaysian journals shift towards open access publishing which Maximizes access, visibility and impact regarding the research community in Malaysia. Most scientific OAJs are published by universities and most of them are published in English.

It is evident that open access helps improve the accessibility of journals; but based on the researchers' observations, the search and display interface of these journals suffered from lack of field-based search and efficient display. A consequence of this is that in spite of their online presence, the most articles in these journals tend to be less used, as they are not easily accessible due to poor metadata assignment and indexing.

It was also observed that there is higher tendency toward Social Sciences and Engineering publications (51% overall). A total number of 123 (about 57%) of Malaysian OAJs are indexed by only one indexing service; yet the remaining 43% are currently being indexed by at least 2 or more (even up to 10) indexing services. It is thus implicated that more than half of Malaysian OAJs have an important challenge to compete among other scientific publications around the world.

In Malaysia, there are more than 30 universities and institutions of higher learning, both in government and in private sector and these organizations publish 216 open access journals,

which means Malaysian universities and research institutes are performing a reasonable role in making the knowledge available for scientists throughout the world.

### Notes

1. The Directory of Open Access Journals (DOAJ) lists open access journals, that is, scientific and scholarly journals that meet high quality standards by exercising peer review or editorial quality control and are free to all from the time of publication based on the Budapest Open Access Initiative definition of open access

2. The Budapest Open Access Initiative (BOAI) was a conference convened by the Open Society Institute on December 1-2, 2001. This small gathering of individuals is recognized as one of the major historical, and defining, events of the open access movement.

3. After Identifying the journals a sample of 70 journals were analyzed randomly in this regard and it turned out that most of the scientific journals in Malaysia are published in universities or research institutes.

4. MyAIS is an open access system for abstracts and indexes of articles published in refereed scholarly Malaysian journals. In some cases, this system also provides full-text access to scholarly articles in journals as well as conference proceeding published in Malaysia or abroad. MyAIS relies on the voluntary contribution from Malaysian academics, academic and professional publishers. This is a non-profit making project that attempts to serve Malaysian educational and research community with information about what has been published in Malaysian refereed journals for each year and in the various disciplines. Self-submission and archiving of abstracts and full-text articles is encouraged.

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