

## The Development of Science, Technical and Medical Scholarly Journals in Malaysia

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**Abstract:** The publication of Journal of the Indian Archipelago and Eastern India in 1874 signaled the birth of academic journals in Malaysia. The first medical journal, The Journal of Straits Medical Journal appeared in 1890. Subsequently, in the beginning of 20th century with the expansion of the British colonial administration several research institutes were established out of which the Institute of Medical Research and the Rubber Research Institute were prominent examples. The establishment of the University of Malaya in 1954 further promoted research and publication activities. In the post-independence era, the growth of tertiary education as well as the increase in the number of the specialized research organizations accelerated the publication of journals in the fields of Science, Technology and Medicine (STM). This study looks at the early years of medical journals and the development of STM journals in contemporary Malaysia. The second part of the study touches on the advent of electronic scholarly journal publishing in Malaysia.

**Key words:** Malaysia-scholarly publishing, scholarly journal publishing, scientific publishing, technical writing, Malaysia

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### INTRODUCTION

Scholarly journal publishing in Malaysia is a relatively young and often anxious industry; underneath the steady surge of scholarly journal titles over the past five decades runs angst about the quality or standards of these journals. Most Malaysian scholarly journals began publishing after independence in 1957 and with the exception of Malaysian Nature Journal in 1925 the mean age of Malaysian scholarly journals is about 20 years. Other early journals include the Journal of Natural Rubber Research and the International Medical Research Journal (Harun, 1997).

A research reported in the late 1980s, there were an estimated 149 scholarly journals in Malaysia, 38.2% of which were published by universities and 37.6% by associations. However, other researchers have challenged this estimate, placing the figure of scholarly journals published by various learned and professional societies and universities only anywhere from 80-90. This discrepancy in estimates is due mainly to the fact that many scholarly journals are not recognized as such and therefore are not indexed accordingly in Malaysian libraries. A later study based on research from the various national libraries in the mid 1990s nevertheless found that there were about 228 scholarly journals published in Malaysia. Of this figure, 59% were journals on the Arts, Humanities and Social Sciences (AHSS) and the rest were Scientific, Technical and Medical (STM) journals. (Hew, 2001; Pillai, 1997; Ishak, 1997). Hashim (2011)

reported 444 scholarly journals published in Malaysia between 1847-2007. According to Ishak (1997), one facet of scholarly journal publishing in Malaysia on which scholars agree, however is that institutions of higher learning are the most fecund producers of scholarly journals. These institutions produce about 33% of Malaysian scholarly journals followed by associations (23%), research institutes (14%), government offices (6.5%) and others (22.9%).

Ngah (1997) reported the increasing visibility of Malaysian scholarly journals in international indexing and abstracting services is testimony to the higher standards achieved by these journals. Among the forty three visible journals, Zainab found that the number of Malaysian scholarly journals in the STM areas has increased, the reverse of the situation in the 1970s when AHSS titles predominated. This she attributes to the possibility that STM journals published in Malaysia have reached an acceptable level of quality to be indexed by major international indexing and abstracting services. Zainab concludes that this development should help provide a healthy environment in stimulating quality local contributions as these journals should ensure a scholar's visibility.

Websters Third International Dictionary defines scholarly as: concerned with academic study, especially research; exhibiting the methods and attitudes of a scholar and having the manner and appearance of a scholar. Scholarly journals generally have a sober, serious look. They often contain many graphs and charts but few

glossy pages or exciting pictures. Scholarly journals always cite their sources in the form of footnotes or bibliographies. Articles are written by a scholar in the field or by someone who has done research in the field. The language of scholarly journals is that of the discipline covered. It assumes some scholarly background on the part of the reader. The main purpose of a scholarly journal is to report on original research or experimentation in order to make such information available to the rest of the scholarly world. Many scholarly journals, though by no means all are published by a specific professional organization (Cornell Library, 2002).

The genesis of scholarly journal publishing in Malaysia dates back to the colonial era when colonial administrators intent on promoting greater interest in the study of the region devoted themselves to the task of collecting, recording and diffusing such information through journals. The most prominent organization involved in such scholar activity was the Straits Branch of the Royal Asiatic Society and their publication, the Journal of the Straits Branch of the Royal Asiatic Society, first published in 1878 remained for a long the most prestigious and influential medium for scholars whose interest was in the study of the Malaya. Though, the focus of the publication was on the matters related to history, arts and literature, it did regularly devote attention to the scientific study of Malaysian flora and fauna.

### **THE GROWTH OF THE MEDICAL JOURNALS**

The establishment of British rule in Malaya marked the expansion of economic activity, especially in the West coast states of the peninsula. Accelerated economic activities meant the opening up of the vast tracts of land for agriculture as well as the creation of an efficient infrastructure system and in the case of Malaya it also necessitated importing foreign labor especially from China and India to meet the man power needs.

This sudden influx of foreign labor, unhealthy living conditions (including poor sanitation), the spread of tropical diseases forced the British administrators to devote more attention to medical research and publication of related data. The first medical journal, the Journal of the Straits Medical Association appeared in 1890. This was replaced by the Journal of the Malaya Branch of the British Medical Association and from 1946 onwards it appeared as the Medical Journal of Malaya.

Apart from the above mentioned medical journals, the colonial administrators working in tandem with professional organizations also brought out publications catering for specialized interest. One such journal was the Journal of the National Malaria Society which was

published from 1942-1951. This focus on malaria is understandable as it was the most serious of the tropical diseases effecting the local population.

Another significant development was the launching of the Malayan Pharmaceutical Journal in 1952 under the editorship of T.H. Eliot published by the Malayan Pharmaceutical Association, this bimonthly aim at providing reliable information on the latest advances in pharmaceutical practice all over the world. After independence in 1957, more medical journals made their appearance. An important factor explaining the proliferation in the number of journals is the eagerness of professional organizations to initiate their own publishing effort. But as pointed out by other observers such eagerness is not always sustained and some of these journals have been short-lived. The Journal of the Malaysian Society of Health which appeared in 1980 stopped publication in 1988 after 6 issues. The Hospital Kuala Lumpur Journal of Medicine was discontinued after its inaugural issue in 1955.

When the Universiti Kebangsaan Malaysia (National University of Malaysia) established a medical school in the 1970s, it started a journal, Jurnal Perubatan UKM in 1978 to encourage publishing activities amongst its teaching staff. Though, it successfully brought out 17 issues, it ceased publication in 1995.

### **JOURNALS IN OTHER STM FIELDS**

The interest of the British in scholarly publishing extended to other area as well. The Malayan Journal of Tropical Geography, for example appeared in the 40s and beginning 1953 it was issued as the Journal of Tropical Geography (till it ceased publication in 1970s).

In the field of agriculture, the earliest publication was the Agricultural Bulletin of the F.M.S. which subsequently appeared as the Malaysian Agricultural Journal. In 1955, the Journal of The Malayan Veterinary Medical Association just made it appearance and was latter issued as the Malaysian Veterinary Journal. Forestry was another area that attracted colonial interest and the maiden effort in this direction was the publication of the Malayan Forest Record in the early 20's. From 1954, this publication appeared under the name of Malayan Forester.

After independence, the Forest Research Institute of Malaysia (FRIM) has been spear heading scholarly publishing related to forestry and forest products. Their leading serial is the Journal of Tropical Forest Science, a quarterly journal which publishes original articles on current research related to tropical forestry and its associated sciences including management of tropical

forest; development, production and harvesting of forest produce, forest botany, ecology, soils, genetics; conservation and afforestation, etc.

The Journal of Tropical Forest Products, an offshoot of the Journal of Tropical Forest Science (JTFS) is a biannual journal dedicated to improving the understanding of the research and development of tropical forest products. It publishes original articles covering the entire field of science, processing and manufacture of wood and non-timber forest products. It covers topics such as wood anatomy and structure, degradation, impregnation, drying, gluing, finishing, machining, timber engineering, pulp and paper, composite wood products, economics, recreation management property and activity studies of medicinal plants.

### **ROLE OF UNIVERSITIES IN JOURNAL PUBLISHING**

As in other countries, universities play a crucial role in journal publishing. University administrators encourage the teaching staff to conduct research and subsequently publish their findings in scholarly journals, both local and foreign. Publishing enhances not only peer recognition but is a key consideration for career enhancement.

Currently, there are 20 public universities in Malaysia and each university endeavours to bring out scholarly publications in the form of journals. A study conducted (Ishak, 1997) shows that approximately 33% of all Malaysian journals are published by universities. Given that scholarship in Malaysia is undertaken and disseminated both in English and in the national language, Bahasa Melayu (BM), >50% of Malaysian scholarly journals are bilingual while 30% are in English, 10% in BM and the remaining 5% in BM, English and Arabic (Hew, 2001).

The main medium of instruction in Malaysian public universities is Bahasa Malaysia and the younger generation of academic staff is sometimes reluctant to submit contributions to foreign publications (which are published in English) due to their handicap in the English language. This has further encourage the growth of local journals many of which use Bahasa Malaysia as the language medium. At the National University of Malaysia, there are three main journals in STM; Jurnal Perubatan (medicine), Sains Malaysiana (various fields of Science) and Jurnal Kejuruteraan (Engineering) (Penerbit UKM., 1995).

Universiti Teknologi Malaysia has since 1977 been bringing out Jurnal Teknologi (currently titled Teknologi).

Since, its 30th issue, the journal has undergone changes and it is currently issued as six volumes, each devoted to specific disciplines:

- Manufacturing, advanced materials, power and transportation
- Construction, design and planning
- Science and mathematics
- Electronics, telecommunication and information technology
- Management, education and social sciences
- Environment and technology process

Another major public institution, University Pertanian Malaysia which launched *Pertanika* in 1978 now publishes three journals, namely:

- *Pertanika Journal of Science and Technology*
- *Pertanika Journal of Social Sciences*
- *Pertanika Journal of Tropical Agricultural Science*

There is the list of STM other journals published by Malaysian universities.

#### **USM (Universiti Sains Malaysia):**

- Journal of Bioscience
- The Malaysian Journal of Medical Sciences
- Journal of Physical Science

#### **UTM (Universiti Teknologi Malaysia):**

- Jurnal Elektrika in 1989
- Jurnal Kejuruteraan Awam in 1988
- Jurnal Teknologi Maklumat in 1990
- Jurnal Teknologi
- Matematika in 1985

#### **UM (Universiti Malaya):**

- Jurnal Fakulti Kejuruteraan in 1964
- Jurnal Fizik Malaysia in 1984
- Malaysian Journal of Computer Science in 1985
- Malaysian Journal of Library and Information Science in 1996
- Malaysian Journal of Science in 1975

### **ROLE OF RESEARCH INSTITUTIONS**

In pre-independence Malaysia, the leading research institutions were Institute of Medical Research and the Institute of Rubber Research. Today, the number has grown significantly with the setting up of several new centers. Prominent amongst them are the Malaysian

Agricultural Research Development Institute (MARDI), Palm Oil Research Institute of Malaysia (PORIM), Malaysian Institute for Nuclear Technology (MINT). There is the list of journals published by the above mentioned organizations and other research institutions in Malaysia.

**PORIM (Palm Oil Research Institute of Malaysia):**

- Eleis: International Journal of Palm Oil Research
- Palm Oil Developments
- Palm Oil Technical Bulletin
- PORIM Bulletin in 1980

**RRI (Rubber Research Institute):**

- Getah Asli in 1982
- Journal of Natural Rubber Research in 1986
- Jurnal Sains Institut Penyelidikan Getah Malaysia in 1977

**IMR (Institute of Medical Research):**

- IMR Quarterly Bulletin

**FRIM (Forest Research Institute of Malaysia):**

- Journal of Tropical Forest Science

**MARDI:**

- Mardi Research Journal in 1988
- Teknologi Kejuruteraan Pertanian in 1992
- Teknologi Padi in 1985
- Teknologi Pertanian

**ROLE OF SCHOLARLY COMMUNITIES**

Scholarly associations and communities play an important role in journal publishing in Malaysia. There is the list of journals published by scholarly communities in Malaysia.

- Malaysian Dental Association (Dental Journal of Malaysia in 1974)
- Malaysian Geology Association (Bulletin of the Geological Society of Malaysia)
- Veterinary Association Malaysia (Jurnal Veterinar Malaysia in 1961)
- Dermatology Association of Malaysia (Jurnal Dermatologi in 1988)
- Institution of Engineers-Jurnal Institusi Jurutera Malaysia
- Malaysian Society of Applied Biology (Malaysian Applied Biology)
- Malaysia Pediatric Association (Malaysian Journal of Child Health)

- Obstetrics and Gynaecology Society of Malaysia (Malaysian Journal of Obstetrics and Gynaecology)
- Malaysian Psychiatric Association (The Malaysian Journal of Psychiatry)
- Malaysian Medical Association (Medical Journal of Malaysia in 1982)
- Malaysian Nature Society (Malaysia Naturalist in 1979)
- Technological Association of Malaysia (The Malaysian Technologist in 1996)
- Incorporated Society of Planters (The Planter in 1925)
- Geology Association of Malaysia (Warta Geologi in 1972)

**E-JOURNALS**

About two decade ago, at least two STM journals in Malaysia was published electronically and online the Malaysian Journal of Computer Science (<http://mjcs.fsktm.um.edu.my/>) and the Malaysian Journals of Library and Information Science. Both journals published by the Faculty of Computer Science and Information Technology, University of Malaya. Although, the internet come as early as the early 90s to most of Malaysian Scholars, the development of e-Journals are rather slow. The latest development there about 30 scholarly journals in Malaysia published electronically.

**CONCLUSION**

The emergence of scholarly journals is an essential phenomenon in Malaysia as it has to do with scholarly endeavours and with this the propagation of new knowledge which in turn may or may not filter into practical applications for the improvement of the quality of life. Scholars are the main contributors and users of scholarly literature especially those literature which are disseminated through scholarly journals.

This study listed out Malaysian STM scholarly journals published during British administration and post independence. Medical journals initiated and dominated the earlier part of scholarly publishing with the setup of Institute of Medical Research. Later development show Malaysian scientist and scholars published more journals in various disciplines through research institutions, societies and universities. The journals offered alternatives for research findings to the scientists and researchers. It contributed to the development of corpus of knowledge in many fields in this country. Malaysian scholars, however are yet to take the advantages offered by the Internet. One of the greatest

causes of concern for many involved in scholarly publishing in Malaysia is the apparent low standards and levels of authority. It is almost unanimously agreed that factors such as shoddy scholarship, slovenly editing, the dearth of proper manuscript referees, the inability to meet publishing deadlines and the lack of funding are the bane of an otherwise growing scholarly journal industry. As a result, most STM journals in Malaysia are young and immature.

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