

Aspects of Quality in Academic Journals: A Consideration of the Journals Published in Thailand

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ABSTRACT: Since more academic journals are being published in Thailand, we have considered four aspects of quality in these journals: a) peer selection by Commission for Higher Education (CHE) or Thailand Research Fund (TRF); b) ranking in the top ten journals in terms of Thai Journal Citation Index (TCI) Impact Factor; c) number of papers cited in ISI-WOS during 1999-present; d) listing in one or more international databases. Some 228 journals published in Thailand were surveyed, and information on these four qualities was provided on 83 selected journals. Some factors correlated well, while others did not, so administrators and researchers should be aware that proper evaluation of the journals published in Thailand should consider various aspects of quality.

BACKGROUND

Nowadays, more and more journals are being published in Thailand, so the reader often wonders about the quality of these journals, and how they relate to other journals published elsewhere in the world. In addition, various agencies are assessing universities in Thailand, such as the Commission on Higher Education (CHE) [1] and the Office for National Education Standards and Quality Assessment (ONESQA) [2]. Inevitably, publications of research articles in journals and citations of these articles have become important indicators of research output and quality. Funding agencies, such as the Thailand Research Fund (TRF) [3] and National Science and Technology Development Agency (NSTDA) [4] and organizations awarding prizes, such as the Foundation for the Promotion of Science and Technology under the Patronage of H.M. the King (FPST) and National Research Council of Thailand (NRCT) [5] also use publications and citations as major indicators of research.

Here, we will discuss various aspects of selected journals published in Thailand, some of which relate to quality and/or internationalization. This work was motivated by the fact that the "Academic Regulations of Graduate Studies, Mahidol University, B.E. 2549 (2006)" [6] require that candidates wishing to graduate with a doctoral degree must publish at least one research article in an international journal, to assure the quality and significance of the work performed as part of the thesis research. As the current Dean of the Faculty of Graduate Studies, the first author is responsible for ensuring these regulations are obeyed, and for ruling on whether publication in a particular journal is

equivalent to a publication in an international journal. To this end, new "Guidelines for Publications from Thesis Research Suitable for Completion of Ph.D. Degree 2006" were announced by the Faculty of Graduate Studies, Mahidol University in May 2006 [7], together with an Annex listing the publications deemed to be of acceptable quality. Journals in the approved list include a) Journals Listed in the Institute for Scientific Information (ISI) Databases, b) Journals Listed in Other Selected Databases, and c) Other Approved Journals Published in Thailand or Abroad. Doctoral students, wishing to publish in other journals not listed in the Annex, are required to submit the proposed journal for approval by the Dean, before publication. Making decisions whether to approve non-standard journals has sometimes not been easy, and this is why the present survey has been made on the journals published in Thailand.

JOURNAL DATABASES

As noted above, listing in international databases is one important aspect of quality. Perhaps, the best known database is the ISI-WOS database [8], which includes Science Citation Index Expanded (about 6,670 journals), Social Sciences Citation Index (about 1,979 journals) and Arts & Humanities Citation Index (about 1,160 journals). Founded in 1958 by Eugene Garfield [9], a pioneer of bibliometrics, ISI has been at the forefront of citation analysis for decades. It was purchased by Thomson Corporation in 1992. Nowadays, the ISI-WOS database is widely used for determining the number of publications or citations of any institution or individual, because it is readily

searchable and covers the journals widely regarded as being the top journals in each field. The database also calculates "Impact Factors" for each journal, representing the average number of citations per year per journal article over the preceding two year period. Interestingly, "Impact Factors" appear to have been originally devised to select the journals for inclusion in the Science Citation Index in the early 1960's. Today, scientists and committees involved in assessing individuals for the award of prizes, promotions and grants awards often use the ISI-WOS database to determine the number of publications, the impact factors of journal, and the number of citations. But such data must be used with care and understanding, and be coupled to peer review by knowledgeable experts.

However, there are many other journal databases in addition to ISI-WOS, which may differ in areas of coverage and selectivity in inclusion of journals. We searched another 17 international databases, and found that journals published in Thailand are listed in at least 12 other international databases, in addition to ISI-WOS, namely: **AgBiotechNet**, CABI database covering agricultural biotechnology [10]; **AGRIS**, international information system for agricultural sciences and technology, created by FAO [11]; **Biological Abstracts (BA)**, BIOSIS-Thomson database covering 4,226 life science journals [12]; **CINAHL**, nursing and allied health sciences database with more than one million records from over 2,818 journals in nursing and allied health sciences [13]; **Education Resources Information Center (ERIC)**, more than 1.2 million bibliographic records of education literature [14]; **MathSciNet**, American Mathematical Society database covering 1,800 journals [15]; **POPLINE**, scientific articles, reports, and books, in population, family planning, and related health issues [16]; **PubMed/Medline (PM)**, US National Library Medicine database covering some 5,000 biomedical and life science journals [17]; **SciFinder (SF)**, a combined database with CAPlus having some 9,500 chemistry-related titles plus Medline [18]; **SCOPUS (SC)**, Elsevier database with 15,000 titles in scientific, technical, medical and social sciences [19]; **Zentralblatt MATH (ZBMath)**, European Mathematical Society abstracting and reviewing service in pure and applied mathematics, with over 2.0 million entries from 2,300 journals [20]; **Zoological Record (ZR)**, 140 year-old database covering 5,000 serials in animal biology, now owned by Thomson [21]. Five other well known databases did not appear to contain journals published in Thailand, namely: Academic Search Premier (ASP), EBSCOhost Research database; Linguistics and Language Behavior Abstracts (LLBA); PsycINFO; Sociological Abstracts; and H.W. Wilson. Search of additional databases is

likely to yield more journals listed in international databases. In addition, the **Thai Journal Citation Index Centre (TCI)** has also established a database of 138 journals published in Thailand [22], and has calculated Impact Factors from citations among 126 of these Thai journals. The TCI Centre database covers journals published regularly for at least 3 years, with articles in Thai or English, including reviews, research articles, academic articles, and short reports, which are reviewed by at least two readers, have Thai or English Abstracts, and list references cited. In recent years, the database has developed well, and now provides a useful search function for publications and citations covering 3,474 articles from journals published in Thailand.

SURVEY OF ACADEMIC JOURNALS PUBLISHED IN THAILAND

We have recently collected information on 228 academic journals published in Thailand, adding another 102 journals to 126 listed in the TCI-Impact Factor 2005 database. The full list is available online [23], and includes 146 journals in the area of Science, Technology & Medicine (STM), 60 journals in Social Science, Arts & Humanities (SAH), and 22 journals covering both areas (SAH/STM). Of these journals, 47 journals (Eng) have only English articles, another 39 journals (Tha) have only Thai articles, while another 142 journals have both Thai and English articles (Tha/Eng). To limit space, only 83 journals with phonetic spelling taken from OCLC's WorldCat [24], have been selected for further discussion in this article (Table 1), since they show certain aspects of quality discussed below. TRF and CHE have also specified criteria for classifying a journal, not in the ISI-WOS database, as being an international journal or a national journal, but it is actually difficult for the outsider to know which category any particular journal falls into. Thus for international journals: a) at least 25% of the editorial board should be full professor or equivalent level; b) reviewers should be experts with at least 25% coming from overseas; c) at least 10% of papers should come from abroad. For national journals: a) editorial board should contain Professors, Ph.D.s, or those honored at national level, from outside the institution; b) referees should be experts in the field, still active in research; c) at least 10% of papers should be from other institutions, increasing to 25% later; d) of the publications from host institution, at least half should be reviewed by readers from another institution; e) all articles should include abstracts in English. Apart from that, the journal should be published regularly and on-time, and there should be quality evaluation every 2 years. These guidelines were initiated for STM journals, but some SAH journals also fulfil the criteria.

LISTING IN INTERNATIONAL DATABASES

In terms of listing in international databases as an indicator of quality, only one journal, Asian Pacific J Allergy & Immunology is listed in ISI-WOS, but with a low impact factor of 0.306, as shown in the Journal Citation Reports for 2005 [24]. At one time, ScienceAsia itself was formerly in the ISI database in the 1980's under the name of J Sci Soc Thailand, but it is no longer listed. In terms of the other databases mentioned above, 33 out of 83 journals are listed in the other 12 databases mentioned (Table 1). These databases, of course, differ not only in the areas of their coverage, but also in the stringency with which they select journals for inclusion. Of these 33 journals, only four were SAH journals, J Population and Social Studies (listed in POPLINE), Pasaa (listed in ERIC), English Teacher: An International Journal (listed in ERIC), and Kasetsart J of Social Sciences (listed in AGRIS). Of the 29 STM journals, some are listed in as many as 4 to 6 databases, namely Asian Pacific J Allergy & Immunology, Chiang Mai J Science, Kasetsart J Natural Science, J Med Assoc Thailand, ScienceAsia, and Southeast Asian J Trop Med & Pub Health, indicating wide acceptance internationally. In addition, several other STM journals are listed in 1 to 3 databases covering a broad range of fields.

CITATIONS IN INTERNATIONAL JOURNALS

Citations in international journals listed in ISI-WOS are another indicator of quality. Two aspects may be considered, first the number of papers cited, and secondly the total number of citations made to articles in the journal. These will naturally depend on the number of papers published per year and the number of years that a journal has been in operation. Nevertheless, significant numbers of papers cited or total number of citations should show that a journal was widespread international readership. Our study (Table 1) shows that sixty journals had papers cited in ISI-WOS during 1999-present, with 47 being STM journals, 9 being SAH journals, and 4 being both SAH/STM. Remarkably, Southeast Asian J Trop Med & Pub Health had many as 3,108 papers cited in ISI-WOS, the most for an STM journal, while J Siam Society (99 papers cited) had by far the most cited papers for an SAH journal. Other journals with many cited papers included: J Med Assoc Thailand (443), Asian Pacific J Allergy & Immunology (440), ScienceAsia (233), Natural History Bulletin Siam Society (210), Asian Pacific J Cancer Prevention (154), Kasetsart J Natural Science (127), Songklanakarin J Science & Technology (88) and Thai J Agricultural Science (88).

SELECTION BY PEERS

Another aspect of quality is selection by knowledgeable peers. Selection of journals was first performed by TRF in 2002 to provide the opportunity for Ph.D. students in the Royal Golden Jubilee program to publish in good journals published in Thailand, in addition to international journals listed in ISI-WOS or other international databases. The TRF-approved list now numbers 8 journals, namely: J Med Assoc Thailand, Thai J Surgery, Southeast Asian J Trop Med & Pub Health, Asian Pacific J Allergy & Immunology, ScienceAsia, Thai J Agricultural Science, Manusya, and J Population & Social Studies [3]. Then to stimulate the development of SAH journals, CHE encouraged SAH journals, broadly fulfilling the criteria of national journal listed above, to apply for financial support [1]. Eight journals were supported in 2004: Thammasat Law J, J Population & Social Studies; Chulalongkorn J Economics, Thammasat Economic J, J Asian Review, Manusya, Prajna Vihara, and The Journal. Another 8 journals were selected for support by CHE in 2005: Thai J Development Administration; JARS J Architectural/Planning Research & Studies; University Thai Chamber Commerce J, Songklanakarin J Social Sciences & Humanities, J Mekong Societies, J Social Sciences ("Sangkhomsāt", from Chiang Mai University), J Social Work ("Wārasān Sangkhomsongkhrosāt", from Thammasat University), and Sasin J Management. Recently, CHE have also selected 10 STM journals to receive financial support for 2005, as follows: ScienceAsia, Songklanakarin J Science & Technology; ECTI Transactions Electrical Engineering, Electronics, & Communication (ECTI-EEC); Thai J Agricultural Science; Asian Pacific J Allergy & Immunology; Southeast Asian Journal Tropical Med & Pub Health; J Med Assoc Thailand; Thai Forest Bulletin; Siriraj Hospital Gazette; and Chulalongkorn Medical Journal. Thus, these 27 journals may also be regarded as having another aspect of quality, namely selection by knowledgeable peers. Interestingly, the most highly cited SAH journal, J Siam Society is not in this peer-selected group, which may be because SAH journals were selected from those applying for funding. The other journal from the Siam Society in STM, Natural History Bulletin Siam Society is also notably absent from the peer-selected group, despite being among the top-ten journals for papers cited in ISI-WOS. Both journals have been published for many years, so citations may come from many articles published over several years.

Table 1. Quality Analysis of Academic Journals Published in Thailand (see text of explanations of abbreviations).

No	Journal Name	ISSN	Field	Lang.	TRF	CHE	TCI	Papers Cited in ISI-WOS	Indexed in Database
1	Asian Journal of Energy and Environment (AJEE)	1513-4121	STM	Eng	-	Yes	0.000 (rank#59)	Yes (11)	-
2	Asian Pacific Journal of Allergy and Immunology	0125-877X	STM	Eng	Yes	Yes	0.016 (rank#53)	Yes (440)	WOS, PM, SC, SF, BA, AgBN
3	Asian Pacific Journal of Cancer Prevention (APJCP)	1513-7368	STM	Eng	-	-	-	Yes (154)	PM, SC
4	Chiang Mai Journal of Science (J Sci. Fac. Chiang Mai Univ.)	0125-2526	STM	Eng	-	-	0.016 (rank#53)	Yes (23)	SC, BA, AGRIS, ZBMmath
5	Chiang Mai Medical Bulletin (Chiang Mai wēchāsān)	0125-5983	STM	Tha/Eng	-	-	0.000 (rank#59)	Yes (35)	-
6	Chiang Mai University Journal	1685-1994	BOTH	Eng	-	-	0.000 (rank#59)	Yes (2)	-
7	Chulalongkorn Journal of Economics	0857-8397	SAH	Eng	-	Yes	0.000 (rank#59)	Yes (4)	-
8	Chulalongkorn Medical Journal (Chulālongkōn wēchāsān)	0125-6483	STM	Tha/Eng	-	Yes	0.015 (rank#58)	Yes (49)	-
9	Chulalongkorn University Dental Journal (Wārasān thantaphaetsā)	0215-2534	STM	Tha/Eng	-	-	0.067 (rank#15)	Yes (3)	MathSciNet, ZBMmath
10	East-West Journal of Mathematics	0125-2526	STM	Eng	-	-	-	-	-
11	ECTI Transactions on Electrical Eng., Electronics, and Communication	1685-9545	STM	Eng	-	Yes	-	Yes (1)	-
12	English Teacher: An International Journal	1513-0630	SAH	Eng	-	-	-	-	ERIC
13	Entomology and Zoology Gazette	0125-3794	STM	Tha/Eng	-	-	0.027 (rank#43)	-	AGRIS
14	IARS Journal of Architectural/Planning Research and Studies	1905-2022	STM	Tha/Eng	-	Yes	0.000 (rank#59)	-	-
15	Journal of Asian Review (Ēchia parithat)	0125-3638	SAH	Tha	-	Yes	-	-	-
16	Journal of Educational Research and Measurement Burapha University	1685-6740	SAH	Tha/Eng	-	-	0.294 (rank#2)	-	-
17	Journal of Environment Research, The (Wārasān wīchāi saphāwā waelom)	0125-6939	STM	Tha/Eng	-	Yes	0.000 (rank#59)	-	-
18	Journal of KMITNB	0857-684X	STM	Tha/Eng	-	-	0.000 (rank#59)	Yes (3)	-
19	Journal of the Medical Association of Thailand (Chomānāhet thāngphaet)	0125-2208	STM	Tha/Eng	Yes	Yes	0.120 (rank#3)	Yes (443)	PM, SC, SF, BA
20	Journal of Mekong Societies (Wārasān sangkhom lunnān Khōng)	1686-6541	SAH	Tha	-	Yes	-	-	-
21	Journal of Mental Health of Thailand	2859-497X	STM	Tha	-	-	0.091 (rank#9)	Yes (6)	-
22	Journal of Metals, Materials and Minerals	0857-6149	STM	Tha/Eng	-	-	0.342 (rank#1)	Yes (10)	-
23	Journal of the National Research Council of Thailand (Wārasān Saphā Wīchāi heng Chā)	0028-0011	BOTH	Tha/Eng	-	-	0.000 (rank#59)	Yes (5)	AGRIS
24	Journal of Nursing Science Chulalongkorn University	0858-1231	STM	Tha/Eng	-	-	0.091 (rank#9)	-	-
25	Journal of Political Science	0125-135X	SAH	Tha	-	-	0.057 (rank#19)	-	-
26	Journal of Population and Social Studies (Wārasān prachakon lae sangkhom)	0857-717X	SAH	Tha/Eng	Yes	Yes	-	-	POPLINE
27	Journal of Scientific Research Chulalongkorn University	0125-6335	STM	Tha/Eng	-	-	0.071 (rank#13)	Yes (27)	SF
28	Journal of the Siam Society, The	0857-7099	SAH	Eng	-	-	0.067 (rank#15)	Yes (99)	-
29	Journal of Social Sciences, The ("Sangkhomsā" from Chiang Mai Univ)	0125-4138	SAH	Tha	-	Yes	-	-	-
30	Journal of Social Work ("Wārasān Sangkhomsongkhrosā" from Thammasat Univ)	0857-3166	SAH	Tha	-	Yes	-	-	-
31	Kasetsart Journal Natural Science	0075-5192	STM	Eng	-	-	0.034 (rank#35)	Yes (127)	SC, SF, ZR, AGRIS, AgBN
32	Kasetsart Journal Social Sciences, The (Witthayāsān Kasātsārt)	0125-8370	SAH	Tha/Eng	-	-	0.000 (rank#59)	Yes (1)	AGRIS
33	Khon Kaen Agriculture Journal	0125-0485	STM	Tha/Eng	-	-	0.036 (rank#34)	Yes (5)	AGRIS
34	KKU Engineering Journal	0125-8273	STM	Tha/Eng	-	-	0.000 (rank#59)	Yes (3)	-
35	KKU Research Journal	0859-3957	STM	Tha/Eng	-	-	0.039 (rank#32)	Yes (4)	-
36	KKU Veterinary Journal	0858-2297	STM	Tha/Eng	-	-	0.109 (rank#4)	Yes (1)	AGRIS
37	KMITL Science Journal	0685-2044	STM	Eng	-	-	0.045 (rank#24)	Yes (2)	-
38	KMUTT Research and Development Journal	0125-278	STM	Tha/Eng	-	-	0.109 (rank#4)	Yes (2)	-
39	Ladkrabang Engineering Journal	0125-1724	STM	Tha/Eng	-	-	0.019 (rank#49)	Yes (3)	-
40	Mahidol University Journal of Pharmaceutical Sciences (Wārasān phēsatthasā)	0125-1570	STM	Tha/Eng	-	-	0.037 (rank#33)	Yes (14)	SF
41	MANUSYA Journal of Humanities	0859-9920	SAH	Eng	Yes	Yes	0.028 (rank#41)	Yes (1)	-

Table 1. Cont'd.

No	Journal Name	ISSN	Field	Lang.	TRF	CHE	TCI Impact Factors	Papers Cited in ISI-WOS	Indexed in Database
42	Mon-Khmer Studies Journal, The	0147-5207	SAH	Eng	Yes	-	-	Yes (14)	-
43	Naresuan University Journal	0858-7418	BOTH	Tha/Eng	-	-	0.102 (rank#7)	Yes (2)	-
44	Natural History Bulletin of the Siam Society, The	0080-9462	STM	Eng	-	-	0.000 (rank#59)	Yes (210)	BA,ZR
45	Natural History Journal of Chulalongkorn University, The	1513-9700	STM	Eng	-	-	<IF N/A>	Yes (5)	ZR
46	PASA : Journal of Language Teaching and Learning	0125-2488	SAH	Eng	-	-	0.000 (rank#59)	Yes (3)	ERIC
47	Prajna Vihara : The Journal of Philosophy and Religion	1513-6442	SAH	Eng	-	Yes	-	-	-
48	Ramathibodi Medical Journal	0125-3611	STM	Tha/Eng	-	-	-	Yes (9)	-
49	Ramathibodi Nursing Journal	0857-0852	STM	Tha/Eng	-	-	0.047 (rank#23)	-	-
50	Research and Development Journal of The Engineering Institute of Thailand	0857-7951	STM	Tha/Eng	-	-	0.074 (rank#12)	Yes (11)	-
51	Sasin Journal of Management	0859-2659	SAH	Eng	-	Yes	-	Yes (2)	-
52	ScienceAsia : Journal of The Science Society of Thailand	1513-1874	STM	Eng	Yes	Yes	0.041 (rank#31)	Yes (233)	SC,SF,BA,ZR
53	Siriraj Hospital Gazette / Siriraj Medical Journal	0125-152X	STM	Tha/Eng	-	Yes	0.018 (rank#51)	Yes (84)	SC (73-74), PM (62-80)
54	Songklanagarind Medical Journal	0125-8435	STM	Tha/Eng	-	-	0.054 (rank#20)	Yes (1)	-
55	Songklanakarinn Journal of Social Sciences and Humanities	0859-1113	SAH	Tha/Eng	-	Yes	0.043 (rank#26)	Yes (3)	-
56	Songklanakarinn Journal of Science and Technology (Wārasān Songkhilā Nakharin)	0125-3395	STM	Eng	-	Yes	0.091 (rank#9)	Yes (88)	SC,SF,AGRIS
57	Southeast Asian Journal of Tropical Medicine and Public Health, The	0125-1562	STM	Eng	Yes	Yes	0.100 (rank#8)	Yes (3,108)	PM,SC,BA,SF,ZR,AgBN
58	Srinagarind Medical Journal	0857-3123	STM	Tha/Eng	-	-	0.042 (rank#30)	Yes (7)	-
59	Srinakharinwrot Journal of Pharmaceutical Sciences	0859-6255	STM	Tha/Eng	-	-	0.043 (rank#26)	-	-
60	Suranaree Journal of Science and Technology	0858-849X	STM	Tha/Eng	-	-	0.000 (rank#59)	Yes (12)	AGRIS
61	Thai Agricultural Research Journal (Wārasān wichākān kasē)	0125-8389	STM	Tha/Eng	-	-	0.023 (rank#46)	Yes (4)	AGRIS
62	Thai AIDS Journal (Wārasān rōk-ē)	0857-8575	STM	Tha/Eng	-	-	-	Yes (31)	-
63	Thai Environmental Engineering Journal	1686-2961	STM	Tha	-	-	0.043 (rank#26)	Yes (2)	-
64	Thai Forest Bulletin (Botany)	0495-3843	STM	Eng	-	Yes	<IF N/A>	Yes (45)	AgBN
65	Thai Journal of Agricultural Science	0049-3589	STM	Eng	-	Yes	0.022 (rank#47)	Yes (88)	AGRIS,AgBN
66	Thai Journal of Aquatic Science	0859-1008	STM	Eng	-	-	-	Yes (11)	AgBN, AGRIS
67	Thai Journal of Development Administration (Wārasān phatthanaborithāisā)	0125-3689	SAH	Tha/Eng	-	Yes	0.000 (rank#59)	Yes (1)	-
68	Thai Journal of Health Research (Wārasān wichai wittayāsā kāmphet)	0857-4421	STM	Tha/Eng	-	-	0.103 (rank#6)	Yes (10)	SF
69	Thai Journal of Mathematics	1686-0209	STM	Eng	-	-	-	-	MathSciNet, ZBMath
70	Thai Journal of Nursing (Wāchasān phayābān)	0125-0078	STM	Tha/Eng	-	-	0.071 (rank#13)	-	SC (1975-82)
71	Thai Journal of Nursing Council, The (Wārasān Saphākān phayābān)	1513-1262	STM	Tha	-	-	0.043 (rank#26)	Yes (1)	-
72	Thai Journal of Nursing Research (Wārasān wichai thāng kān phayābān)	0859-7685	STM	Tha/Eng	-	-	0.061 (rank#18)	Yes (6)	CINAHL
73	Thai Journal of Pharmaceutical Sciences, The (Thai phēasachasān)	0125-4685	STM	Tha/Eng	-	-	0.034 (rank#35)	Yes (32)	-
74	Thai Journal of Surgery	0125-6068	STM	Eng	-	-	-	Yes (10)	-
75	Thai Journal of Veterinary Medicine, The (Wāchasān sattawaphāet)	0125-6491	STM	Tha/Eng	-	-	0.064 (rank#17)	Yes (62)	AgBN, AGRIS
76	Thailand Statistician, Journal of Thailand Statistical Association	1985-9057	STM	Tha/Eng	-	-	-	-	MathSciNet, ZBMath
77	Thammasat Economic Journal (Wārasān sāthasā Thammāsā)	1685-3008	SAH	Tha/Eng	-	Yes	0.054 (rank#20)	-	-
78	Thammasat International Journal of Science and Technology (TIJSAT)	0859-4074	STM	Eng	-	-	0.016 (rank#53)	Yes (14)	-
79	Thammasat Law Journal (Wārasān nitisā)	0857-3867	SAH	Tha/Eng	-	Yes	<IF N/A>	-	-
80	Thammasat University Journal (Wārasān Thammāsā)	0125-3670	BOTH	Tha	-	-	0.000 (rank#59)	Yes (3)	-
81	The Journal : Journal of the Faculty of Arts, Mahidol University	1686-7831	SAH	Eng	-	Yes	-	-	-
82	University of the Thai Chamber of Commerce Journal (Wārasān Mo.ko.kho)	0125-2437	SAH	Tha/Eng	-	Yes	0.000 (rank#59)	-	-
83	Vājira Medical Journal (Wāchira wāchasān)	0125-1252	STM	Tha/Eng	-	-	0.044 (rank#25)	Yes (3)	-

CITATIONS IN THAI JOURNALS

Finally, let us consider citation of Thai journals in the TCI database, as shown by the calculated Impact Factors for 2005 [22]. Of the 126 journals listed, 58 journals have TCI Impact Factors ranging from 0.016 to 0.342, while the remaining 68 or so journals have Impact Factors of 0. This is a much narrower range than the Impact Factors for ISI-WOS database listed in the Journal Citation Reports (JCR) for 2005 [24], where JCR Impact Factors for 6,088 science journals ranged from 0 to 49.794 and JCR Impact Factors for 1,747 social science journals ranged from 0 to 12.642. Clearly, the number of citations in TCI is much less: possible reasons may be that fewer journals are covered and there is less stringent criteria for selection of journals. As noted earlier, Impact Factors were initially devised by Garfield to select journals for the Science Citation Index, since citation is considered as an index of quality. Of the 83 journals listed in Table 1, selected for various aspects of quality, 19 are not listed in TCI, another 16 have TCI Impact Factors of 0, and 3 do not yet have impact factors (<N/A>). Conversely, of the top 10 ranked journals in TCI, only 4 journals are listed in international databases, only 3 journals have more than 20 papers cited by journals in ISI-WOS during 1999-present, and only 3 journals were peer-selected by TRF or CHE. Thus, TCI Impact Factors do not appear to correlate well with the other three aspects of quality described. However, the TCI Centre also follows citations of Thai journals in ISI-WOS, and these show better correlation. Thus, the top 10 journals of the TCI Centre based on total numbers of citations in ISI-WOS [26] are the same as our list of top 10 journals based on most papers cited in ISI-WOS (Table 1), except that Asian Pacific J Cancer Prevention and J Siam Society are not covered by TCI, so their places are taken by Siriraj Hosp Gazette and Thai J Vet Med, the next journals in our list. This discrepancy between citations in ISI-WOS and TCI Impact Factors might possibly suggest that journals in the former group may be more geared towards an international readership, while many journals in the latter group may be used by readers working under more local settings.

CONCLUSIONS

The present survey covers 228 journals published in Thailand [23], but due to limitations of space, only 83 journals have been selected for presentation in this article, based on possessing one or more aspects of quality: a) peer selection by CHE or TRF; b) ranking in the top ten journals in terms of TCI Impact Factor; c) number of papers cited in ISI-WOS during 1999-present; d) listing in one or more international

databases. It has not been our purpose to rank Thai journals, since this is an impossible exercise, because that they cover a whole range of fields, are published by different types of organizations, and may differ in the extent to which they cater for international or local readers. Our purpose has been more to point out which journals excel in each aspect of quality mentioned, and leave it to the reader to make his/her own judgment about each journal based upon what the reader requires, whether it be to submit papers for publication, to give grants to support journal publication, to select journals for publication of doctoral research, or to place value on publication in a particular journal for the purposes of assessing a particular researcher.

Overall, it is good to see that 33 journals are listed in international databases, but of these, only 4 journals are in the field of SAH. In addition, 60 journals have papers cited in ISI-WOS, but of these only 9 journals are in SAH. Thus, it seems to us that further efforts are needed to develop journals in SAH in Thailand. However, researchers in SAH also publish their work as monographs, proceedings or books, and efforts are being made by senior SAH researchers to define other ways of disseminating research, apart from traditional publication, but these will need further approval from CHE. Even if approved, the versatility of the journal still makes it an attractive medium for dissemination of research, since journals can publish many types of articles, not only research articles, but also reviews, editorials, academic commentary, commemorative articles, invited articles, book reviews and other articles. Moreover, special volumes may be issued on particular themes or articles may be invited from presentations at selected conferences. All of this, of course, requires maintaining a consistent editorial policy and ensuring good peer review. The selection of 16 journals for funding by CHE is a welcome move, not just for the financial support, but equally important as an endorsement of quality, which will attract better papers to the journals and help them improve in quality.

As far as journals in STM are concerned, it is clear that Thailand has many journals of international quality. A major problem for these journals is that top scientists will prefer to send their best research to overseas journals listed in ISI-WOS and having high JCR Impact Factors. This is true with ScienceAsia, even when the journal (then J Sci Soc Thailand) was listed in the ISI database with a low impact factor. Nevertheless, journals of international quality published in Thailand do fulfil an important role in publishing good quality research, which may not involve exciting new concepts, but provides knowledge that is important for our country. They should be supported in their efforts. Since the new journals which are admitted into ISI-WOS tend to be new journals in fast-moving fields, like proteomics,

published by large international publishers like Elsevier and Wiley, it will be difficult for Thai journals to compete for inclusion in ISI-WOS. Consequently, journal editors in Thailand should place more emphasis on submitting their journals to other reputable international databases, and administrators should consider the inclusion of a journal in reputable international databases as one indicator of the quality of a journal published in Thailand.

Thus the question of Thai journals is a complex one, involving many variables. Nevertheless, when all is said and done, the quality of any journal depends upon the strength of its peer review system, and the availability of good manuscripts to select from. Journal editors in Thailand, like the first author, face many difficulties in running a good quality journal. Securing financial support is just one problem, but a more serious one perhaps is that there are few dedicated journal offices in Thailand, and for the most part, the responsibility is placed on the editor to establish a functioning operational system during his term of office. So, it is important that academic authorities and research funding agencies provide financial support and recognition for journals of quality in both STM and SAH, since this will help locally published journals develop to greater strengths, and in doing so, help develop research in Thailand. But to do this sensibly, senior administrators in these agencies must understand that there are various aspects of quality in academic journals published in Thailand, such as those described here.

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