AWARENESS OF USING HIGH QUALITY ELECTRONIC JOURNALS AMONG POSTGRADUATE STUDENTS

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Abstract: *This study investigates the awareness, perceptions and barriers in using high quality electronic journals among the Faculty of Information Management postgraduate students in Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia. This study adopts a quantitative method using questionnaires as the instruments for data collection. The questionnaires were distributed to a random sample of 160 respondents from the three Masters' programmes. The total response rate was 75% or 120 respondents. The results revealed that generally, respondents agreed that they are aware and have positive perceptions towards using the high quality electronic journals provided by the university library. The respondents quite agreed that they faced barriers when accessing high quality electronic journals. Besides that, the awareness in using the high quality electronic journals is the same regardless of which programme they belong to. On the other hand, the respondents' perceptions in using the high quality electronic journals differ among the programmes they belong to. The study further revealed that there is no difference in opinions on the barriers of using high quality electronic journals among postgraduate students of different programmes.*

Keywords: *Electronic journal, library users, high quality electronic journal, users' perception*

INTRODUCTION

Quality journals publish in-depth original articles written by scholars and professionals in specific field. These articles have been reviewed by other scholars in the specific field for scholastic standards and validity. The term "electronic journals" refers to scholarly journal that can be accessed via electronic transmission and usually published on the Web. They are a specialised form of electronic document produced with the purpose of providing materials for academic research and study, and they are formatted approximately like journal articles in traditional printed journals (Llewellyn, 2002). There are several criterias commonly used in determining the quality of journals and the following methodologies are commonly used: citation analysis; peer analysis; circulation; and coverage in indexing or abstracting services ("Quality markers and use of electronic journals in an academic health sciences library", 2010).

According to the National Commission for the Evaluation of Research Activities (2005), the criteria regarding the informative quality of the journal as a medium of scientific communication, such as following members from the editorial and scientific boards is publicly known. Detailed instructions are provided to authors. Information is included with regards to the process of evaluation and selection of manuscripts that is used by the journal,

editorial or committee, including the criteria, procedure and revision plan of reviewers or experts. Summaries, article titles, keywords and abstracts are translated to English, in the case of journals, books and conferences.

High quality journals are often associated with journals with impact factors. According to Habibzadeh and Yadollahie (2008), the impact factor of a journal reflects the frequency with which the journal articles are cited. It is the best available measure of journal quality. In addition, according to Morris, Harvey and Kelly (2009), there are currently five widely used criterias for evaluating the quality of academic publications, such as individual citation scores, institutional lists, peer surveys, derived lists, and citation studies. Other criterias of evaluating the quality of journal is through quality of content, standardisation, purpose and coverage, periodicity and continuity, timeliness and maintenance, navigation and graphic design, and external recognition of the graphic design of the publication (Lopez-Ornelas et al., 2005).

Journals can also be rated by tiers. The ranking or ratings of other journals can be separated into general groupings, such as first tier, second tier, and third tier. According to Starbuck (2005), articles in top tier academic journals have been attracting more and more citations, whereas articles in second and third-tier economics journals have been attracting fewer and fewer citations. Tier is referred as row or rank or unit of structure, as one of several placed one above another (Oxford English Dictionary,1948).

Journal Impact Factor is from Journal Citation Report (JCR), a product of Thomson ISI (Institute for Scientific Information). JCR provides quantitative tools for evaluating journals. The impact factor is a measure of the frequency with which the "average article" in a journal has been cited in a given period of time (Sciencegateway, 2010). The impact factor is useful in clarifying the significance of absolute or total citation frequencies. It eliminates some of the bias of such counts which favour large journals over small ones, or frequently issued journals over less frequently issued ones, and of older journals over newer ones. Particularly in the latter case, such journals have a larger citable body of literature than smaller or younger journals. All things being equal, the larger the number of previously published articles, the more often a journal will be cited (Thomson Reuters, 2010). The impact factor of a journal reflects the frequency with which the journal's articles are cited in the scientific literature. It is derived by dividing the number of citations in year 3 to any items published in the journal in years 1 and 2 by the number of substantive articles published in that journal in years 1 and 2.

In this study, the term "high quality electronic journals" denotes scholarly journals that have been evaluated as high quality as explained above that can be accessed via electronic transmission and published on the web. The use of high quality electronic journals is a necessity in the present education. Lack of awareness regarding high quality journals among postgraduate students in using library electronic resources in Universiti Teknologi MARA is stated as one of the problems as students prefer to use the Internet search engines instead of online databases that are made available in the library portal. There is a lack of curiosity and awareness of using the library portal among the students themselves (Baljinder & Verma, 2009). Students seem to be more interested in accessing the journals through popular search engines like Google and Yahoo as they are more convenient and can generate many results very quickly. Hence, this study was set out in order to investigate the awareness and perceptions of postgraduate students in using high quality electronic journals in Universiti Teknologi MARA Library, Malaysia. The objectives of the study are as

follows:

- to determine the postgraduate students' awareness and perceptions in using high quality electronic journals.
- to identify the barriers in using high quality electronic journals among the postgraduate students.
- to compare the difference regarding the awareness and perceptions in using high quality electronic journals among the three programmes of postgraduate students.
- to find out the difference on the barriers in using high quality electronic journals among the three programmes of postgraduate students.

METHODOLOGY

This study, applied the descriptive methods, which relied on survey method in questioning individuals on a topic and then describing their responses. A random sample of 160 postgraduate students was chosen as the respondents who were from Msc Master in Information Management (IM770); Master in Knowledge Management (IM771) and Master in Library Science (IM772). The questionnaires that were distributed yielded a response rate of 120 or 75% of the respondents.

A pre test was carried out in which ten questionnaires were distributed to selected respondents. In order to determine whether a test has content validity, experts in the area was consulted and they were asked to examine the face validity of the questionnaire.

A pilot test was then carried out with thirty students from three different programmes. Modifications were made after receiving comments and opinions about the questionnaires from the pilot test group. After the pilot study, the final questionnaires were distributed to 160 respondents. Reliability test was carried out to test the consistency of the respective scales for the level of awareness, perceptions and barriers. The scales for all levels are reliable as all Cronbach's Alpha values exceeded 0.6.

RESULTS

Out of 120 respondents, 86 (71.67%) of the respondents are female and 34 (28.33%) of them are male. The respondents are represented by three programmes namely, Msc Master in Information Management (IM770), Master in Knowledge Management (IM771) and Master in Library Science (IM772). The results show that all respondents are equally divided with 40 (33.3%) for each programme and half (60 or 50%) of the respondents are from the third semester students. This is followed by semester 2 students (29 or 24.2%), semester 1 (18 or 15%) and semester 4 (13 or 10.8%).

In addition, the distribution of respondents by age indicates that 46 (38.3%) of the respondents are above 26 years old, 44 (36.7%) are from 25 years old, and 28 (23.3%) from 24 years old. A small number (2 or 1.67%) of the respondents are from 23 years age group. The distribution of respondents by mode of study shows that majority (94 or 78.3%) of the respondents are from the full time programme. This is followed by part time programme (22 or 18.3%) and flexible learning programme (4 or 3.3%).

Awareness in using high quality electronic journals

In order to examine respondents' opinion on their awareness in using high quality electronic journals provided by the university library, statements related to the awareness were analysed, based on the extent of their agreement with the statements provided. The mean score of each statement are presented in Table 1 and arranged in descending order of numerical value (from highest to the lowest). In this study, a score of "1" represents "strongly disagree" and a score of "5" represents "strongly agree". This study has taken the position that any score in excess of 3.0 shows that the respondents agree with that particular statement, while overall mean score in excess of 3, indicates that users agree with the statement as a whole.

Table 1 shows that all statement on awareness in using high quality electronic journals have the mean scores greater than 3 and overall mean score is 3.94. It can be concluded that generally, the respondents agree that they are aware in using high quality electronic journals. The highest mean score that is being agreed by the respondents is that *they know the core journals in their field* (mean=4.43). The mean scores range from 3.98 (I am aware about journal impact factor) to 3.68 (I realised the importance of high quality journals in my learning).

Table 1: Awareness in Using High Quality Electronic Journals

Statement	Mean	Std. Deviation
I know the core journals in my field	4.43	.886
I am aware about journal impact factor	3.98	.594
I am aware about the name "high quality e-journal"	3.93	.632
I am aware about tier of journals	3.72	.916
I realised the importance of high quality journals in my learning	3.68	1.316
All statements	**3.94**	-

Perceptions in using high quality electronic journals

On the perceptions in using high quality electronic journals, respondents were asked to indicate their perceptions using a score of "1" represents "strongly disagree" and a score of "5" represents for "strongly agree". In this study, any excess of 3.0 shows that respondents agree with that particular statement, while overall mean score in excess of 3 indicates that users agree with the statement as a whole. The mean score of each statement are presented in Table 2 and is also arranged in descending order of numerical value.

Table 2 shows that all statements on perceptions in using high quality electronic journals have mean scores greater than 3 and overall mean score is 4.03. It can be concluded that generally, the respondents have positive perceptions in using high quality electronic journals. The highest mean score that is being agreed by the respondents are *quality e-journals provide other valuable services or features beside full text articles* (mean=4.43).

This is followed by, in descending order, *the more I use online retrieval of research content, the less I bother to obtain content from printed journals* (mean= 4.31), *I believe that journals, as in printed or electronic format will become obsolete in 5 to 10 years* (mean= 4.21), *Use of online searching increases exposure to non-peer reviewed papers* (mean= 3.98), *Quality e-journals make current awareness of recent research easy and fast* (mean= 3.93), *Quality e-journals usage increases scholarly productivity* (mean= 3.72), and *E-journals currently waste user's time because of user unfriendly interfaces* (mean= 3.68).

Table 2: Perceptions in Using High Quality Electronic Journals

Statement	Mean	Std. Deviation
Quality e-journals provide other valuable services or features beside full text articles	4.43	.886
The more I use online retrieval of research content, the less I bother to obtain content from printed journals	4.31	.986
I believe that journals, as in printed or electronic format will become obsolete in 5 to 10 years	4.21	1.159
Use of online searching increases exposure to non-peer reviewed papers	3.98	.594
Quality e-journals make current awareness of recent research easy and fast	3.93	.632
Quality e-journals usage increases scholarly productivity	3.72	.916
E-journals currently waste user's time because of user unfriendly interfaces	3.68	1.316
All statements	**4.03**	-

Barriers in using high quality electronic journals

Respondents were asked to indicate their opinion on the barriers in using high quality electronic journals. Based on a scale of "1" that represents "strongly disagree" and a score of "5" for "strongly agree", the statements related to the barriers were analysed based on how much they agree with the statements below. Table 3 shows that all statements on barriers in using high quality electronic journals have mean scores greater than 3 and overall mean score is 3.15. Overall, the respondents quite agree that they have encountered problems when accessing the high quality electronic journals. The highest mean score that is being recognised and quite agree by the respondents is that *'there are too many results returned from a search'* (mean=3.64).

This is followed by, in descending order, *results are not very well sorted by relevance to my search criteria* (mean=3.51), and *pictures in PDF are too small to read clearly* (mean=3.01). However, respondent disagreed that *articles do not provide abstracts* (mean=2.66) and *articles are not available in full text* (mean=2.58) as the barriers on the usage of high quality electronic journals.

Table 3: Barriers in Using High Quality Electronic Journals

Statement	Mean	Std. Deviation
There are too many results returned from a search	3.64	1.002
Results are not very well sorted by relevance to my search criteria	3.51	.622
Keywords that do not accurately represent the content of articles	3.46	.634
Instead of using online database, search engine can produce scholar literature too e.g. Google scholar	3.38	.663
Articles in PDF load slowly	3.12	.822
Task given do not require me in using quality e-journal	3.12	1.182
Articles do not provide hyperlinks to cited articles	3.06	.964
Pictures in PDF are too small to read clearly	3.01	.815
Articles do not provide abstracts	2.66	.865
Articles are available in full text	2.58	1.105
All statements	**3.15**	-

Comparison of awareness in using high quality electronic journals among programmes of postgraduate students

Comparison of awareness in using high quality electronic journals among postgraduate students of different programmes (Master in Information Management: IM770, Master in Knowledge Management: IM771 and Master in Library Science: IM772) used Kruskal-Wallis test and the result of the comparison of mean rank is presented in Table 4. Earlier, test of normality were carried out to check whether the distribution of data for the variables are normally distributed. This is because all parametric tests require the variables analysed to be normally distributed. The scales for all data were not normal as all Kolmogorov-Smirnov p-values are 0.000. Hence, non-parametric test using Kruskal-Wallis test was carried out to compare the mean difference among the groups of respondents.

The result shows that the awareness in using high quality electronic journals among postgraduate students from the three programmes is not significant at the 5% significance level as p-value values exceed more 0.13. (p-value= 0.139). The findings revealed that the awareness in using high quality electronic journals among postgraduates are the same regardless of which programme the respondents belong to.

Table 4: Kruskal-Wallis Test for Comparing Awareness Level among Programmes

Awareness	Programme	N	Mean Rank	Chi-Square	*p*-value
	IM 770	40	63.50	3.945	.139
	IM 771	40	51.82		
	IM 772	40	66.18		

Comparison of perceptions in using high quality electronic journals among programmes of postgraduate students

Comparison of perception in using high quality electronic journals among postgraduate students of different programmes (Master in Information Management: IM770, Master in Knowledge Management: IM771 and Master in Library Science: IM772) using Kruskal-Wallis test and the result of the comparison of mean rank is presented in Table 5. The results illustrated that on the average, the perceptions in using high quality electronic journals among the three programmes of postgraduate students is statistically significant at the 5% significance level (p-value= 0.007). It can be seen that overall mean rank for the IM 770 group (69.75) is higher than the IM 771 group (64.66) and followed by IM 772 groups (47.09). The result showed that the perception in using high quality electronic journals differ among the three programmes of the respondents.

Table 5: Kruskal-Wallis Test for Comparing Perceptions Level among Programmes

Perceptions	Programme	N	Mean Rank	Chi-Square	*p*-value
	IM 770	40	69.75	9.995	.007
	IM 771	40	64.66		
	IM 772	40	47.09		

Comparison of barriers in using high quality electronic journals among programmes of postgraduate students

Comparison on the barriers in using high quality electronic journals among the three different programmes of postgraduate students using Kruskal-Wallis test and the result of the comparison of mean rank is presented in Table 6. The results revealed that, the barriers in using high quality electronic journals among postgraduate students of the three programmes is statistically not significant at the 5% significance level (p-value= 0.089). Thus, it is concluded that, the barriers in using high quality electronic journals are the same regardless of which programme they belong.

Table 6: Kruskal-Wallis Test for Comparing Barriers Level among Programmes

Barriers	Programme	N	Mean Rank	Chi-Square	p-value
	IM 770	40	63.61	4.849	.089
	IM 771	40	50.85		
	IM 772	40	67.04		

RECOMMENDATIONS AND CONCLUSION

The study has presented information on the awareness, perceptions and barriers in using high quality electronic journals among the postgraduate students. Generally, respondents are aware of the high quality electronic journals provided to them by the university library. This could be due to the requirement of the Master's programme that demand high quality works as most of the respondent stated that they know the core journals in their field. Respondents also indicated that they have positive perceptions in using high quality electronic journals. They agreed that quality e-journals provide other valuable services or features beside full text articles. In terms of barriers when accessing high quality electronic journals, respondents quite agreed that they have encountered problems when accessing the high quality electronic journals. It is evident that when accessing the electronic journals, there are too many results returned from a search due to the problem of information overload.

In comparing the awareness and barriers in using high quality electronic journals among postgraduate students of different programmes, the result shows that the awareness and barriers in using high quality electronic journals are the same regardless of which programmes the respondents belong. It can be concluded that even though respondents came from different programmes, most of the respondents have the experience in accessing high quality electronic journals. However, the perceptions in using high quality electronic journals differ among the three programmes. The reason behind the difference is that the Master's students came from various field of study and their perception is being influenced by their background.

From the results of the study, recommendations are presented with the hope to increase the usage of the high quality electronic journals among the students and they are as follows:

i) *Library or Faculty should conduct seminars, workshops, small classes, on information skill for users*

Searching skills is one of the methods that students used to acquire information. With good searching skills, students can avoid themselves from misleading sources and thus can save their time and retrieve more relevant information based on their requirements.

ii) *Students should consult with lecturers and librarians in order to learn more techniques in searching quality e-journals*

Consultation with professional librarians or academic staff can be a good guide to assist students in choosing high quality electronic journals. Users themselves need to be aware and motivate themselves to consult the librarian regarding selecting articles and journals.

iii) *Students should be exposed in using more high quality e-journals*

The academic staff needs to encourage students to search and use materials from high quality electronic journals. Appropriate online database and scholarly journals can help the students in assisting their needs especially when searching material for academic purpose.

iv) *Students should make use of keywords, vocabulary control and other types of online searching methods*

Appropriate keywords, thesaurus and the use of Boolean search can enhance user searching skills with more relevant results. It is hoped that the information produced through this study will be of use to improve the library services, Librarians should promote high quality electronic journals to students and thus improve student's searching skills that leads to the usage of high quality electronic journals. This study has provided information on the awareness, perceptions and barriers in using high quality electronic journals among postgraduate students and it is hoped that the information offered through this study would give a good guide and direction for further research. The findings from this research represent a promising area for future work and development. Further investigations are needed to explore the usage and information searching skills on high quality electronic journals among student from different fields and disciplines.

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